



HEALTHCARE SAFETY  
INVESTIGATION BRANCH

[WWW.HSIB.ORG.UK](http://WWW.HSIB.ORG.UK)



# Maternity investigations Glossary of terms

Healthcare Safety Investigation Branch | 2023

March 2023

# HSIB Maternity Definitions

HSIB uses a set of standard definitions within its maternity investigation reports and has produced a glossary for wider use. The aim of this is to support understanding of our safety investigation reports by explaining clinical terms in plain English.

The definitions document is available on the HSIB website for use by organisations and trusts to use within their day-to-day work. It may also be useful for women and families seeking further information or clarity about clinical terms used in maternity care.

When a definition from the document is considered for use, HSIB asks that you review and ensure it fits with the context and local practice. In addition, HSIB ask that you reference the Healthcare Safety Investigation Branch and do not alter the content.

If you wish to provide feedback or suggestions, please contact **maternity@hsib.org.uk**

## Instructions for use

### To search for a term:

- Press Ctrl + F. This will bring up a search box.
- Type in your search term (e.g. meconium, breech, dystocia) into the search box. The more you type, the more accurate the search (e.g. shoulder dystocia will be more accurate than shoulder).
- The number of times that search term is in the document will show in the search box.
- Use the arrows within the search box to navigate to the uses within the document. The selected term will be highlighted.
- Some definitions should be edited to indicate whether you are referring to a mother or a baby.

# Contents

|                    |     |   |     |
|--------------------|-----|---|-----|
| Optimised language | 4   | L | 123 |
| #                  | 6   | M | 131 |
| A                  | 7   | N | 147 |
| B                  | 27  | O | 155 |
| C                  | 40  | P | 161 |
| D                  | 67  | Q | 187 |
| E                  | 77  | R | 188 |
| F                  | 84  | S | 198 |
| G                  | 96  | T | 216 |
| H                  | 101 | U | 230 |
| I                  | 114 | V | 234 |
| J                  | 121 | W | 242 |
| K                  | 122 | Z | 244 |

# Optimised language

Below is a table with suggestions for optimising language in maternity reports.

| Now                                              | Suggested alternatives                                                                                                          |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Delivery/delivered                               | Birth/birthed                                                                                                                   |
| Reduced fetal movements                          | A change in a baby's pattern of movement                                                                                        |
| Caesarean section                                | Caesarean birth                                                                                                                 |
| Elective/emergency                               | Planned/unplanned                                                                                                               |
| Bloody                                           | Blood stained                                                                                                                   |
| Failure to progress                              | Cervix did not dilate<br>Non progressive labour<br>Labour did not progress<br>Not progressing as expected                       |
| Failed                                           | Unsuccessful                                                                                                                    |
| Spontaneous rupture of membranes                 | Spontaneous release of waters                                                                                                   |
| Distressed                                       | In pain                                                                                                                         |
| Failed induction of labour                       | Induction of labour had not worked<br>Unsuccessful induction of labour                                                          |
| Indicated                                        | Needed<br>Required<br>Showed                                                                                                    |
| Crash [call]                                     | Emergency<br>Priority 2222 call                                                                                                 |
| Haemorrhage                                      | Heavy blood loss                                                                                                                |
| Emergency buzzer/call                            | Urgent call<br>Immediate response                                                                                               |
| The Mother declined                              | The Mother chose/opted                                                                                                          |
| Allow                                            | Support<br>Encourage<br>Enable                                                                                                  |
| Gestation                                        | Weeks pregnant                                                                                                                  |
| Low risk/high risk/midwife led/<br>obstetric led | Individualised risk<br>An assessment showed the Mother had<br>some factors that increased her chance<br>of having complications |
| Attached to                                      | X or Y was in use                                                                                                               |
| Reviewed                                         | Seen by                                                                                                                         |
| Unfavourable cervix                              | The Mother's cervix was not ready for<br>labour to begin.                                                                       |
| Took own discharge                               | Chose not to stay                                                                                                               |

| Now                      | Suggested alternatives                                                                   |
|--------------------------|------------------------------------------------------------------------------------------|
| Impacted head            | Unable to move from the pelvis                                                           |
| Withdrawal of care       | Reorienting care<br>Redirecting care to a comfort/palliative care pathway                |
| Contractions/contracting | Uterine contractions<br>The Mother's uterus was contracting<br>Experiencing contractions |
| Fetal distress           | Concerns about the Baby's wellbeing                                                      |
| Risk                     | Chance                                                                                   |
| Clinician                | Member of the midwifery team<br>Member of the obstetric team                             |



### **‘2222’ emergency response call**

In the event of an emergency involving a mother/baby, urgent help may be requested using the standard emergency telephone number ‘2222’. When this number is used, the hospital’s telephone switchboard operator prioritises the call above all others. Using a standard telephone number helps to avoid confusion which may arise when clinicians move between hospitals. (HSIB maternity team)

### **4C mortality score**

The 4C mortality score is a risk assessment tool, that can help to identify mothers/patients at highest risk of becoming more unwell, after admission to hospital with COVID-19 infection. The tool may be used to aid clinical decision making for a mother/patient with COVID-19 infection. (HSIB maternity team)



# A

## The ABCDE approach

The airway, breathing, circulation, disability, exposure (ABCDE) approach is an algorithm used to assess and treat a mother. (HSIB maternity team)

## ABCDEF assessment (ambulance)

The ABCDEF approach is a structured method which may be used to assess a mother.

**A – Airway** – assessment of a mother’s airway.

**B – Breathing** – assessment of a mother’s breathing (rate and effort).

**C – Circulation** – assessment of a mother’s pulse, oxygen saturations and colour.

**D – Disability** – assess a mother’s conscious level, posture and pupils.

**E – Expose/Environment/Evaluate** – expose (with consent) a mother’s vaginal opening and assess for bleeding, presenting part of a baby, umbilical cord or signs of imminent birth. Assess the environment a mother/baby is in (too warm or too cold). Evaluate safety.

**F – Fundus/Fetal activity** – assess the fundal height of a mother’s uterus to estimate the gestation of the pregnancy. Ask the mother if she has felt her baby move. (HSIB maternity team)

## Abdominal rectus diastasis

Abdominal rectus diastasis, sometimes called abdominal muscle separation describes when a mother’s abdominal wall muscles have become stretched and weakened during pregnancy. This may cause the muscles to move apart. If the separation is mild (a few cms) then the muscle separation usually resolves without intervention. A wider separation, or one that is small and does not resolve by itself may require input from a physiotherapist. (HSIB maternity team)

## Abnormal cardiotocography

When cardiotocography (CTG) prior to labour (antenatal) is categorised as abnormal it requires prompt senior review and action to further assess fetal wellbeing and consider if a baby needs the time of their birth bought forward. (HSIB maternity team)

## Abnormally invasive placenta

In most pregnancies, a placenta separates from a mother’s uterus and is delivered after a baby is born. In some pregnancies, a placenta grows too deeply into, or through, the muscle layer of a mother’s uterus and does not separate from the uterus after the birth of the baby. This is known as an abnormally invasive placenta (AIP) or placenta accreta spectrum.

AIP is graded depending on how deeply a placenta has grown into the muscle wall.

- **Placenta accreta** is the mildest form of AIP. The placenta can usually be removed by a doctor following the birth of the baby.
- **Placenta increta** is when the placenta has grown part way into the muscle layer of a mother's uterus and management will depend on how extensive this is.
- **Placenta percreta** is the most severe form of AIP and is graded by how deeply the placenta has grown into a mother's uterus and the amount of involvement of other organs (for example the bladder). When a mother is known to have a placenta percreta, her baby will usually be born in a specialist centre, by planned caesarean birth, and a hysterectomy will be done at the same time.

All types of AIP can cause severe bleeding which can be life-threatening.

Further information from: **International Society for Placenta Acreta Spectrum - leaflet**

### Absence seizures

An absence seizure is a type of seizure that results in a mother/baby losing awareness of their surroundings for a short period of time. During an absence seizure a mother/baby may appear as if they are daydreaming, flutter their eyes or make slight jerking movements of the body or limbs. Seizures may last for up to 15 seconds and can happen several times a day.

Further information from: **NHS - epilepsy**

### Acceleration

(increase in a baby's heart rate)

### Achondroplasia

Achondroplasia is a condition that affects the development and growth of a mother's/baby's bones, in particular the upper arms and leg bones. Mothers/Babies with achondroplasia are shorter in height with disproportionately short limbs.

Further information from: **NHS - Achondroplasia**

### Acidemia

(the level of acid in the blood)

### Acidosis

Acidosis is when there is a high level of natural acid in the blood. This can be caused because the lungs are not working well or because there is not enough oxygen reaching parts of the body, or for both of these reasons. (HSIB maternity team)

### Acrocyanosis

Acrocyanosis describes a bluish discolouration of a baby's hands and feet and around the mouth following birth. Acrocyanosis can be common in a newborn baby and expected in the first 48 hours of a baby's life. (HSIB maternity team)





## **‘Acting down’**

‘Acting down’ is the term used to refer to situations where a clinician undertakes a shift usually covered by a more junior clinician. (HSIB maternity team)

## **Activated partial thromboplastin time**

Activated partial thromboplastin time (APTT) is a blood test that measures the time taken for a mother’s/baby’s blood to clot. (HSIB maternity team)

## **Activated partial thromboplastin time ratio**

The activated partial thromboplastin time ratio (APTR) is used to compare a mother’s/baby’s APTT result to a laboratory standard APTT result. The APTR result, in addition to the APTT test result, is used to monitor blood clotting and the action of blood thinning medications. (HSIB maternity team)

## **Active management of the third stage of labour**

Active management of the third stage of labour is when a mother is given an injection of medication to help the placenta separate from her uterus (womb). After the injection, and signs of placental separation, a clinician controls the delivery of the placenta by pulling on the umbilical cord, which is attached to the placenta, and the placenta is removed through the mother’s vagina. This usually happens within 30 minutes of a baby being born. (HSIB maternity team)

## **Active pushing**

Active pushing is when a mother’s cervix is fully dilated (10cm) and she is pushing (bearing down) to birth her baby. (HSIB maternity team)

## **Acute bradycardia**

An acute bradycardia is defined as a single prolonged deceleration for three minutes or more. Help should be sought urgently and birth should be expedited, if the acute bradycardia persists for nine minutes or there is an acute event such as cord prolapse, suspected placental abruption or suspected uterine rupture. If a baby’s heart rate recovers at any time up to nine minutes, staff may, in discussion with a mother, reassess the decision to birth a baby. (NICE, 2017)

## **Acute coronary thrombosis**

Coronary thrombosis is the formation of a blood clot inside a blood vessel supplying the muscle of a mother’s heart. This blood clot may then restrict blood flow, leading to heart muscle damage known as a myocardial infarction (sometimes called a heart attack). (HSIB maternity team)

## **Acute fatty liver of pregnancy**

Acute fatty liver of pregnancy (AFLP) is a condition which causes a build-up of fat in a mother’s liver. AFLP is rare and can be difficult to diagnose which may cause a delay in treatment. AFLP usually occurs in the latter part of pregnancy

and may be a complication of pre-eclampsia. AFLP may be life threatening to a mother or baby.

Further information from: **British Liver Trust - Acute fatty liver disease of pregnancy**

### **Acute hypoxia**

(rapid and significant reduction in the oxygen level in a mother/baby)

### **Acute kidney injury**

Acute kidney injury (AKI) is a condition where a mother's kidneys suddenly stop working properly. Symptoms of AKI can range from a minor loss of kidney function to complete kidney failure.

Further information from: **NHS - Acute kidney injury**

### **Acute kidney injury in a baby**

Acute kidney injury (AKI) in a baby is when their kidneys are not working as expected. An AKI may develop when a baby is born with kidney problems present from birth or may be due to the effects of medications or serious infections. Treatment of an AKI usually requires a hospital stay. (HSIB maternity team)

### **Acute left ventricular failure**

Acute left ventricular failure is when the left ventricle (main pumping chamber) of a mother's heart is unable to pump effectively to deliver enough oxygenated blood to the tissues and organs. This may cause the heart's output to be weaker than expected. (HSIB maternity team)

### **Acute myocardial infarction (mother)**

An acute myocardial infarction ((MI) sometimes called a heart attack) is a medical emergency in which the supply of oxygen to a mother's heart muscle is suddenly blocked. This is due to a blood clot in, or damage to, the blood vessels that supply the muscle of the heart. The reduction in oxygen may seriously damage the heart muscle and can be life threatening to a mother. (HSIB maternity team)

### **Acute myocardial infarction (baby)**

An acute myocardial infarction ((MI) sometimes called a heart attack) is a rare medical emergency in a baby. It may be associated with structural heart problems present from birth, or due to a blood clot in the blood vessels that supply the muscle of the heart, or where the supply of oxygen to the heart is reduced during childbirth. The reduction in oxygen may seriously damage the heart muscle and can be life threatening to a baby. (HSIB maternity team)

### **Acute myocardial infarction**

An acute myocardial infarction ((MI) sometimes called a heart attack) is a medical emergency in which the supply of oxygen to a mother's/baby's heart muscle is suddenly blocked. This is due to a blood clot in, or damage to, the

blood vessels that supply the muscle of the heart. The reduction in oxygen may seriously damage the heart muscle and can be life threatening to a mother/baby. (HSIB maternity team)

### **Acute respiratory distress syndrome (mother)**

Acute respiratory distress syndrome (ARDS) is a type of respiratory failure characterised by rapid onset of inflammation of the lungs. ARDS can be caused by infection, inflammation, or injury. (HSIB maternity team)

### **Acute respiratory distress syndrome (baby)**

Acute respiratory distress syndrome describes severe difficulty in breathing in a baby that arises from a variety of causes such as lung infection, lung formation abnormalities or a baby inhaling meconium before birth. (HSIB maternity team)

### **Acute umbilical vein phlebitis**

Acute umbilical vein phlebitis may be seen during the examination of a placenta under a microscope. Acute umbilical vein phlebitis describes swelling of the vein within an umbilical cord and is a sign of a baby responding to infection. (HSIB maternity team)

### **ACVPU scale**

The ACVPU scale is a tool used to support the assessment a mother's level of consciousness.

**A - Alert.**

**C - Confusion.** New confusion is present.

**V - Voice.** Responds to voice.

**P - Pain.** Responds to pain.

**U - Unresponsive.**

(HSIB maternity team)

### **Addison's disease**

Addison's disease (sometimes called adrenal insufficiency or hypoadrenalism) is a condition affecting a mother's adrenal glands. The adrenal glands are located near the kidneys and produce essential hormones. When a mother has Addison's disease her adrenal gland is damaged and does not produce enough of these hormones. Addison's disease can be treated with medication.

Further information from: **NHS - Addison's disease**

### **Adenomyosis**

Adenomyosis is a condition when the inner lining of a mother's uterus (the endometrium) grows into the muscle wall of the uterus. Adenomyosis may result in a mother having painful periods with heavy bleeding. (HSIB maternity team)

## Adrenal crisis

An adrenal crisis may occur when the levels of cortisol (a steroid hormone) in a mother's body go significantly lower than the expected range. An adrenal crisis is a medical emergency. Symptoms of an adrenal crisis include dizziness, fatigue, low blood pressure, a raised temperature or loss of consciousness. (HSIB maternity team)

## Adrenaline

(a medicine given to stimulate a heartbeat)

## Adrenaline (for neonatal resuscitation)

Adrenaline is a drug which may be used in a baby's resuscitation. Adrenaline works most effectively when given into a baby's vein (intravenous) or bone (intraosseous) in a concentration of 1:10,000 (100 microgram per ml). The standard recommended dose of adrenaline by these routes is 20 microgram per kg (0.2 ml per kg of 1:10,000 adrenaline).

Adrenaline may be given down an endotracheal tube if a baby is intubated and no other route is available.

Further information from: **Resuscitation Council (UK) - Guidelines for resuscitation and support of transition of babies at birth**

## Advanced clinical practitioner

An advanced clinical practitioner is an experienced healthcare professional with skills and knowledge to take on expanded roles within a mother's/baby's care. (HSIB maternity team)

## Advanced life support

Advanced life support (ALS) includes advanced interventions (such as defibrillation of a mother's heart) after basic life support has started. The aim of ALS is to enhance basic life support, provide an open airway and adequate ventilation to achieve return of spontaneous circulation.

Further information from: **Resuscitation Council - Adult advanced life support**

## Aerosol generating procedures

An aerosol generating procedure is a procedure whereby airborne particles or droplets (which may be infectious) are produced. (HSIB maternity team)

## Agonal breathing

### In a baby

Agonal breathing occurs when a baby has experienced a lack of oxygen. It is a whole-body gasp, caused by a brainstem reflex, rather than true breathing. (HSIB maternity team)



## **In a mother**

Agonal breathing is a distinct abnormal pattern of breathing which is a brainstem reflex in a mother, rather than true breathing. It is characterized by gasping, laboured breathing, and may be accompanied by strange vocalizations and jerking. (HSIB maternity team)

## **Agonal rhythm**

An agonal rhythm is often the last organised electrical activity seen on an ECG monitor prior to asystole. (HSIB maternity team)

## **Agoraphobia**

Agoraphobia is a condition where a mother has a fear of being in a situation where she would be unable to get help if something went wrong or she would be unable to leave if she wished to.

Further information from: **NHS - agoraphobia**

## **Air entrainment mask**

An air entrainment mask is used to deliver a known concentration of oxygen to a mother. (HSIB maternity team)

## **Airway management**

Airway management includes manoeuvres, medical procedures and equipment (such as an airway tool) used to open the airway of a baby/mother. (HSIB maternity team)

## **Airway management tools**

Airway management tools may be used to open the airway of a baby/mother.

- An oropharyngeal airway works by preventing a mother's/baby's tongue from blocking the airway.
- A laryngeal mask airway works by sitting at the top of a mother's/baby's airway, forming a seal.
- A nasopharyngeal airway is a flexible tube that may be inserted into a mother's/baby's nasal passage to maintain/secure the airway

(HSIB maternity team)

## **Airway pressure release ventilation**

Airway pressure release ventilation (APRV) is a form of breathing support (ventilation) used to assist the breathing for a mother/baby when on a mechanical ventilator (breathing machine). APRV alternates between two levels of positive airway pressure (high and low) and will allow the mother/baby to breathe fully. APRV usually requires a mother/baby to be sedated. (HSIB maternity team)

## Alanine transaminase

Alanine transaminase (ALT) is an enzyme usually found in the liver. If a mother's/baby's liver is damaged or inflamed, higher levels of ALT may be found in her bloodstream. ALT is measured using a blood test called a liver function test (LFT). (HSIB maternity team)

## Albumin

Albumin is a protein produced by a mother's/baby's liver that circulates in plasma (the clear liquid portion of blood). (HSIB maternity team)

## Alkaline phosphatase blood test

Alkaline phosphatase (ALP) is a protein found in all cells in a mother's/baby's body. An ALP blood test is performed to check the amount of ALP in the blood. An elevated ALP level may indicate liver or bone conditions. ALP is also made by the placenta and is elevated in many mothers, during pregnancy. (HSIB maternity team)

## 'All fours' position

During the birth of a baby, a mother may choose to adopt the 'all fours' position by getting onto her hands and knees. This position may help to relieve a mother's back pain and can help babies rotate into a better position for birth. In circumstances where there is a shoulder dystocia, a clinician may assist a mother into the 'all fours' position to create space in her pelvis and help to release the baby's shoulder. (HSIB maternity team)

## Alteplase

Alteplase is a medicine used to dissolve blood clots that have formed in a mother's blood vessels. (HSIB maternity team)

## Ambulance categorisation of calls and response times

**Category 1** - response within a mean (average) of 7 minutes, 9 out of 10 callers will receive a response within 15 minutes.

**Category 2** - response within a mean (average) of 18 minutes, 9 out of 10 callers will receive a response within 40 minutes.

**Category 3** - response within a maximum of 120 minutes for 9 out of 10 calls.

**Category 4** - response within a maximum of 180 minutes for 9 out of 10 calls. (HSIB maternity team)

## Ambulance staff

Depending on their role, ambulance staff have different levels of training. They may work alongside each other in a double crewed ambulance. Paramedics, with a wider range of skills and responsibilities, may work alone in a rapid response vehicle. (HSIB maternity team)



## **Ambulatory blood pressure monitoring**

Ambulatory blood pressure monitoring (ABPM) is a test used to monitor a mother's blood pressure, at regular intervals, over a 24 hour time period. A mother wears a blood pressure cuff around her arm. The cuff is attached to a portable device, worn on the waist, which records the blood pressure. (HSIB maternity team)

## **Ambulatory care**

Ambulatory care describes medical services that may be provided to a mother/baby whilst they remain an outpatient. (HSIB maternity team)

## **Ambulatory electrocardiogram**

An ambulatory electrocardiogram (ECG) recording, sometimes called a '24 hour tape', is a simple test that can be used to check a mother's heart rhythm and electrical activity over a period of time. Sensors, attached to the skin, are used to detect the electrical signals produced by the heart each time it beats. The sensors are connected to a small machine worn at the waist and the heart can be monitored for one or more days.

Further information from: **NHS ECG**

## **Amniocentesis**

Amniocentesis is a test, during which a long, thin needle is inserted through the abdominal wall, guided by an ultrasound image. The needle is passed into the amniotic sac, that surrounds a baby, and a small sample of amniotic fluid (waters) is removed for analysis. Amniocentesis is usually carried out between the 15th and 20th weeks of pregnancy; it can be performed later if necessary. (HSIB maternity team)

## **Amnion nodosum**

Amnion nodosum are small round deposits (nodules) that may be found on the membrane surfaces of the placenta. (HSIB maternity team)

## **Amnioscope**

An amnioscope is a thin tube-like instrument that can be inserted into a mother's vagina, during late pregnancy or birth, to aid examination (HSIB maternity team)

## **Amniotic band**

An amniotic band may occur when the inner lining of the bag of waters (amniotic sac) surrounding a baby comes away and attaches or wraps around part of the baby's body. The amniotic band may prevent this body part from developing as expected. (HSIB maternity team)

## **Amniotic fluid embolism**

An amniotic fluid embolism (AFE) describes when amniotic fluid (waters which surround and protect a baby inside the womb) leaks into a mother's blood vessels, during labour, causing a blockage (embolism). This can lead to various

symptoms including breathing problems, a drop in blood pressure and loss of consciousness. AFE is a rare occurrence.

Further information from: **NHS - embolism**

**For maternal death cases please use the definition below:**

### **Amniotic fluid embolism**

An amniotic fluid embolism (AFE) describes when amniotic fluid (waters which surround and protect a baby inside the womb) leaks into a mother's blood vessels, during labour, causing a blockage (embolism). This can lead to various symptoms including breathing problems, a drop in blood pressure and loss of consciousness and death of a mother.

Further information from: **NHS - embolism**

### **Amniotic fluid index**

(AFI) (a measurement of the amniotic fluid (waters) around a baby).

### **Ammonia blood test**

An ammonia blood test checks the levels of ammonia in a mother's/baby's blood. Ammonia is a chemical produced by bacteria in the gut. It is usually converted to harmless substances in the liver and removed from the body in the urine. High ammonia levels in a mother's/baby's blood can be linked to inherited problems, severe liver disease, decreased blood flow to the liver or kidney failure. (HSIB maternity team)

### **Anaerobic metabolism**

Anaerobic metabolism describes the process that takes place when a baby has low levels of oxygen and they create energy by breaking down glucose without oxygen. Anaerobic metabolism produces lactic acid, rather than carbon dioxide and water. It is less efficient at creating energy than aerobic metabolism when oxygen levels are normal. (HSIB maternity team)

### **Anaesthetic conserving device**

The anaesthetic conserving device is a system used to administer volatile anaesthetic gases (such as isoflurane and sevoflurane) to a mother whose breathing is being controlled by a ventilator (breathing machine). The anaesthetic conserving device can be used in an intensive care or operating theatre setting. (HSIB maternity team)

### **Anal fissure**

An anal fissure is a tear in the lining of a mother's/baby's large intestine, near the anus.

Further information from: **NHS - anal fissure**



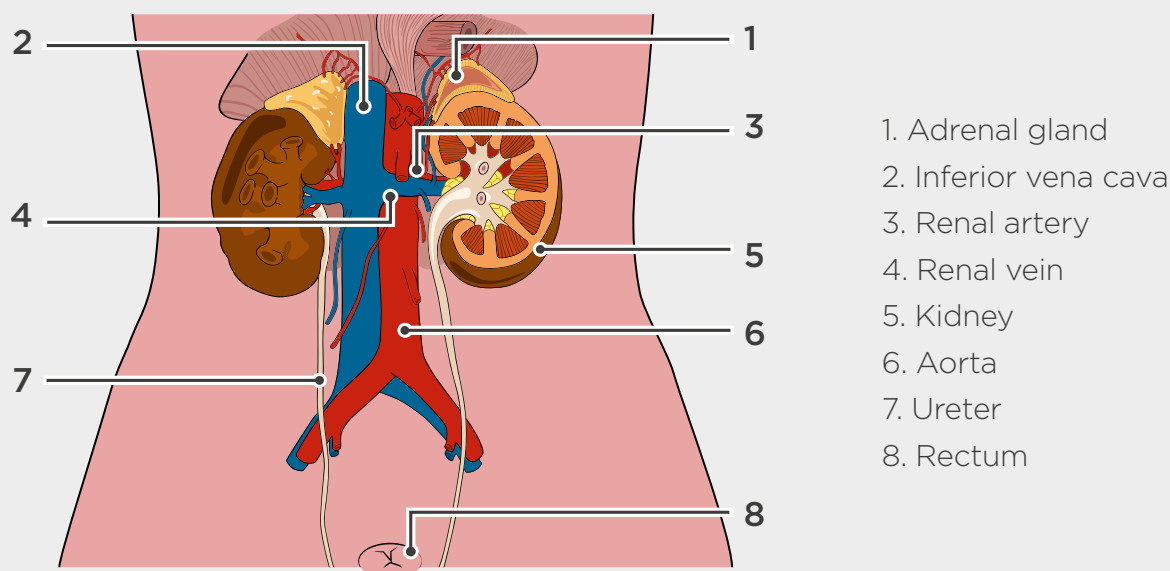


## Anaphylaxis

Anaphylaxis is a severe and potentially life-threatening reaction in a mother/baby, to a trigger such as an allergy.

Further information from: **NHS - anaphylaxis**

## Anatomy of the retroperitoneum



The retroperitoneal space is the area in a mother's abdomen, behind the abdominal lining, which houses several major organs, including:

- kidneys and adrenal glands
- bladder (not illustrated) and ureters
- rectum
- abdominal aorta and inferior vena cava
- sections of the colon (not illustrated)

## Antenatal steroids

Corticosteroids are a medication that may be given to a mother before a baby is born to reduce the potential for breathing difficulties shortly after birth, lung disease and other associated complications for her baby. These complications may arise;

- If a baby is born prematurely
- If a mother has diabetes
- If a baby is born by planned caesarean birth before 39 weeks.
- If it is anticipated during the pregnancy that a baby may need to be born before their due date, because of a complication with either the mother or baby.

Further information from: **RCOG - preterm labour guideline** and

**RCOG - corticosteroids**

## **Antepartum haemorrhage**

Antepartum haemorrhage (APH) is bleeding from the vagina, occurring after 24 weeks of pregnancy, and before the birth of a baby. This occurs in 3-5% of pregnancies and is associated with an increased risk of fetal hypoxia (a lack of oxygen to a baby), slow growth of a baby in the womb, premature birth and stillbirth. Further information from: **RCOG - bleeding in pregnancy guideline**

## **Anterior rim/lip of cervix**

(when a mother's cervix is almost fully dilated)

## **Anterior placenta**

When a baby's placenta attaches to the inner surface, of a mother's uterus, at the front it is called an anterior placenta. Some mothers may not feel their baby's movements as well if the placenta is in an anterior position. If an anterior placenta is also in the lower part of the uterus this may cause problems if a mother needs a caesarean birth. (HSIB maternity team)

## **Antenatal hydronephrosis**

Hydronephrosis is a condition where one or both kidneys become stretched and swollen as the result of a build-up of urine inside them. It is sometimes diagnosed in a baby during a routine pregnancy ultrasound scan. This is known as antenatal hydronephrosis and is estimated to occur in at least 1 in every 100 pregnancies. Most cases of hydronephrosis in a baby are insignificant and do not have any long-term effects.

Further information from: **NHS - hydronephrosis**

## **Anterior cruciate ligament injury**

(an injury to the tissue which joins a mother's knee and thigh bone)

## **Anticoagulation medicine**

(a medicine to reduce the chance of developing a blood clot)

## **Anti-Lewis antibodies**

Anti-Lewis (anti Lea) antibodies are usually considered harmless to a baby and may not be routinely tested for in pregnancy. Antibodies are part of the immune system and a defence against anything which is different from itself. Antibodies may be detected as part of a mother's antenatal antibody screening and in pretransfusion blood tests. (HSIB maternity team)

## **Anti Xa level monitoring**

Anti Xa level monitoring may be used to check the blood clotting in people taking anticoagulation medicine. It is used to monitor the effect of low molecular weight heparin (LMWH) in certain situations including in pregnancy. It is important that the blood specimen is collected within the correct time frame before or after LMWH administration to ensure the result is accurate. The dose of a mother's LMWH may be adjusted based on her anti Xa levels. (HSIB maternity team)



## Antiphospholipid syndrome

Antiphospholipid syndrome (APS) is an autoimmune disorder that increases the chance of miscarriage and blood clots in pregnancy. (HSIB maternity team)

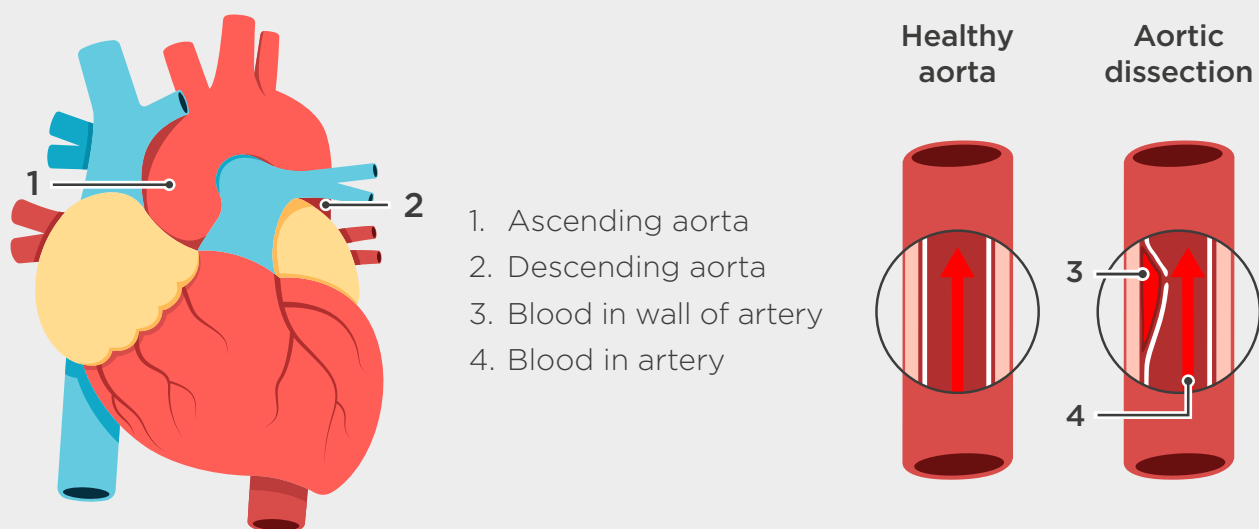
## Antithrombin deficiency

Antithrombin is a natural substance, found in a mother's body, which helps to prevent blood clots. When a mother does not have enough antithrombin, or it does not work as expected, she has a higher chance of blood clots forming (a deep venous thrombosis (DVT) a blood clot in a vein usually a leg, or a pulmonary embolism (PE) a blood clot in her lungs). Antithrombin deficiency is usually inherited from a family member. (HSIB maternity team)

## Aortic compression in a post partum haemorrhage

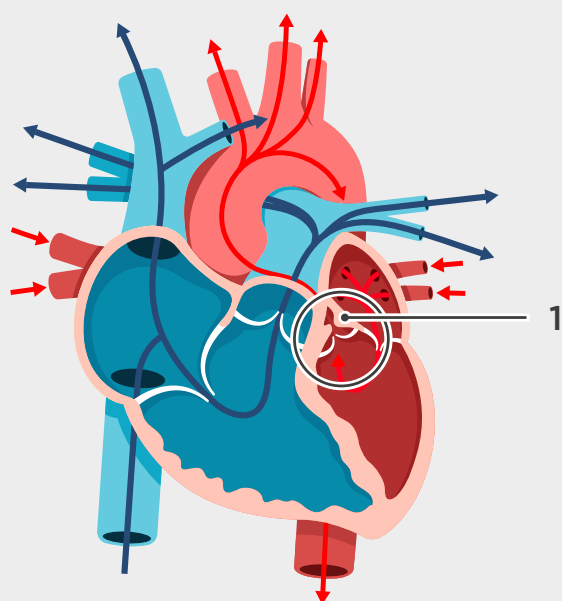
Aortic compression is a technique, used in an emergency, where a clinician places pressure directly on a mother's aorta, to reduce bleeding, by shutting off the blood flow to the uterus. The aorta is a major blood vessel that carries oxygenated blood from a mother's heart to the rest of her body. Compressing the aorta allows time to try to gain control of the bleeding and resuscitate the mother. (HSIB maternity team)

## Aortic dissection



The aorta is the major blood vessel that carries oxygenated blood from a mother's heart to the rest of her body. Three layers of tissue give the aorta a durable wall. In an aortic dissection, a tear occurs in the inner layer of the artery wall, causing it to strip from the middle layer, and cause the formation of a false passage for blood to flow through. If the tear is in the ascending part of a mother's aorta it may be referred to as type A dissection. If it is in the descending part of a mother's aorta it may be referred to as a type B dissection. (HSIB maternity team)

## Aortic stenosis



1. Aortic stenosis

Aortic stenosis means that the aortic valve cannot open fully and blood cannot pass freely from the heart to the main artery supplying the body. Most cases of aortic stenosis are diagnosed after birth. It may be possible to detect some severe cases before birth.

Further information from: **British Heart Foundation – Aortic Stenosis**

### Aortocaval compression

Aortocaval compression may occur when a mother lies on her back. A mother's uterus may press down on the large blood vessels which take blood to her heart and the rest of her body. Aortocaval compression may cause a mother's blood pressure to reduce, cause her to feel dizzy or faint and may cause a baby's heart rate to lower. Aortocaval compression may be resolved by turning a mother onto her left side, sometimes called left lateral position, or by manually displacing the uterus to one side. (HSIB maternity team)

### Apert syndrome

Apert syndrome is a rare genetic skeletal disorder caused by a mutation (change) on a specific gene. This affects how certain cells in the body, including bone cells, grow. A key feature is the premature closure of the bones of a baby's skull which can prevent normal growth and may affect the shape of a baby's head and face. Babies born with Apert syndrome usually have several fingers and toes that are fused together (syndactyly) or webbed. (HSIB maternity team)

Further information from: **GOSH – Apert syndrome**

### The Apgar score

Soon after birth, observations are made of a baby's heart rate, breathing, colour, muscle tone and response to stimulation. These are performed at 1 minute and 5 minutes of age. There may be a third assessment at 10 minutes. The five

observations are each given a score of 0, 1 or 2. The total of these scores is referred to as the Apgar score. If a baby requires resuscitation, the aim is to see the score rising, and the baby's condition improving. (HSIB maternity team)

### Apgar score table

(please use this table to display Apgar scores in reports)

| Time since birth | Heart rate | Colour | Tone | Reflex | Respiratory effort | Score/10 |
|------------------|------------|--------|------|--------|--------------------|----------|
| 1 minute         |            |        |      |        |                    |          |
| 5 minutes        |            |        |      |        |                    |          |
| 10 minutes       |            |        |      |        |                    |          |

### Apnoea

(a brief pause in spontaneous breathing)

### Apnoea test

An apnoea test is part of a series of assessments which are performed to diagnose brain stem death in a mother. The test involves disconnecting the mother from the ventilator (breathing machine), for a period of time, to see if they make any attempt to breathe. If the Mother makes no attempt to breathe by herself this meets one of the three criteria for diagnosing brain stem death.

Further information from: **NHS - brain stem death**

### Argininosuccinate lyase deficiency

Argininosuccinate lyase deficiency (also argininosuccinic aciduria) is an inherited urea-cycle disorder that causes ammonia to accumulate in a baby's blood.

Ammonia, which is formed when proteins are broken down in the body, is toxic if the levels become too high. The nervous system is especially sensitive to the effects of excess ammonia. A baby with argininosuccinic aciduria may be lacking in energy (lethargic) or unwilling to eat and have a poorly controlled breathing rate or body temperature. Some babies with this disorder may experience seizures or unusual body movements or go into a coma.

Further information from: **U.S. National Library of Medicine (2020)**

### Array comparative genomic hybridisation

Array comparative genomic hybridisation (CGH) is an extra test that may be performed during a mother's pregnancy. It is used to find chromosome changes that cannot be detected using the standard pregnancy screening tests. (HSIB maternity team)

### Arterial line

An arterial line is a soft, plastic tube that is inserted into an artery in a mother's/baby's wrist, arm or groin. (HSIB maternity team)



## **Arteriovenous malformation**

An arteriovenous malformation (AVM) is a term used to describe a tangle of blood vessels with abnormal connections between arteries and veins. An AVM may occur anywhere in a mother/baby's body and are often present from birth. (HSIB maternity team)

## **Artificial rupture of membranes**

(procedure during which the waters are broken)

## **Ascites**

(a build-up of fluid in a mother's/baby's abdomen)

## **Aseptic non touch technique**

Aseptic non touch technique (ANTT) is an essential procedure aimed at protecting a mother/baby from harmful infection during procedures such as wound care, taking blood and internal examinations. It is achieved by minimising the presence of harmful microorganisms (such as bacteria and viruses). (HSIB maternity team)

## **Asphyxia**

(low oxygen level)

## **Aspiration pneumonia**

Aspiration pneumonia may occur when a mother/baby inhales food, saliva, liquids, or vomit into the lungs or airways leading to the lungs, instead of being swallowing into the oesophagus and stomach. (HSIB maternity team)

## **Aspirin in pregnancy**

Aspirin is a medicine which a mother may be prescribed during pregnancy if she is considered to have an increased chance of developing pre-eclampsia or if her baby has a higher chance of being small for gestational age (SGA). Taking aspirin each day may lower her chance of developing pre-eclampsia or having a baby that is SGA. (HSIB maternity team)

## **Assisted reproductive technology**

If a family need help to conceive, they may be offered assisted reproductive technology (ART) to become pregnant. These technologies include:

- Medicines to promote ovulation (release of an egg from a mother's ovary).
- Surgery to correct any structural abnormality that is preventing the sperm from reaching the egg or an embryo implanting in the womb.

- Assisted conception such as intrauterine insemination (IUI) where the sperm are collected and are inserted into the womb via a tube through a mother's cervix, or invitro fertilisation (IVF) where the egg and sperm are mixed outside of a mother's body to encourage fertilisation. The resulting embryo is then placed into a mother's womb.
- Egg or sperm donation

Further information from: **NHS - fertility treatment**

## Assisted vaginal birth

An assisted vaginal birth is when a healthcare professional uses specially designed instruments to help a mother to give birth to her baby. Assisted vaginal birth includes birth helped by use of a vacuum cup or forceps or both. The majority of babies born this way are well at birth and do not have any long-term problems. In the UK, approximately 1 in 8 mothers have an assisted vaginal birth and this is more likely (1 in 3) for those having their first baby. Assisted vaginal birth may also be referred to as instrumental or operative vaginal birth.

Further information from: **RCOG - assisted vaginal birth**

## Asthma

Asthma is a common condition, caused by swelling of the air passages in a mother's lungs, which may cause breathing difficulties in a mother. The severity and frequency of the breathing difficulties varies from mother to mother. Asthma affects the sensitivity of nerve endings in the lungs so they may become irritated. During an asthma 'attack' the air passages in a mother's lungs may become narrow and this makes it more difficult for air to move through the lungs. During pregnancy, a mother's asthma symptoms may stay the same, improve or get worse.

Further information from: **NHS - Asthma in pregnancy** or **NHS - Pregnancy**

## Asthma assessment tools

Asthma assessment tools may be used by healthcare professionals to identify a mother's asthma symptoms and adapt management accordingly. (HSIB maternity team)

## Asymmetrical growth of a baby

During an ultrasound scan, a baby's thigh bone, head and abdominal measurements may be taken. In a baby who is growing as expected, these measurements will be proportionate to each other. When there is asymmetrical growth of a baby, the head measurement is proportionally larger than the abdomen and thigh bone measurements. This may be caused by the placenta not working effectively. (HSIB maternity team)

### **Asymptomatic bacteriuria**

Asymptomatic bacteriuria is the presence of significant numbers of bacteria in a mother's urine; the mother would have none of the usual symptoms of a urine infection. Asymptomatic bacteriuria may need treatment with antibiotics. (HSIB maternity team)

### **Asynclitic**

(when a baby's head is tilted to one side)

### **Asystolic cardiac arrest**

Asystolic (sometimes called asystole) is a cardiac arrest heart rhythm when there is no electrical or muscle activity in a mother's heart. An asystolic cardiac arrest is usually treated by cardiopulmonary resuscitation (CPR) and by giving medicines such as adrenaline whilst trying to detect and reverse any underlying cause of the cardiac arrest. (HSIB maternity team)

### **Asystole**

(a cardiac arrest heart rhythm when there is no electrical activity in the heart).

### **Atopic eruption of pregnancy**

Atopic eruption of pregnancy is a skin condition which may affect a mother's skin during the first trimester. It is more likely in mothers with a personal or family history of eczema. Symptoms include a dry itchy rash which may become cracked. (HSIB maternity team)

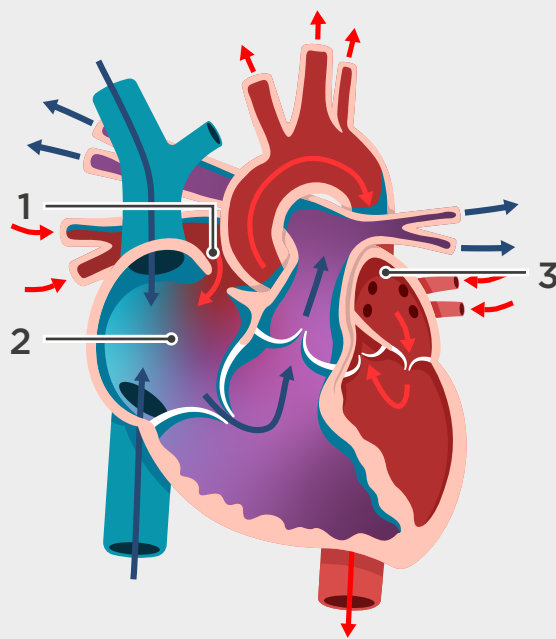
### **Atrial fibrillation**

Atrial fibrillation (AF) is a condition where a mother's heart rate is irregular and unusually fast for more than 30 seconds. This may cause dizziness, shortness of breath and tiredness. AF can cause heart palpitations and may need specialist treatment to restore a mother's normal heart rhythm.

Further information from: **NHS - atrial fibrillation**



## Atrial septal defect



1. Atrial septal defect
2. Right atrium
3. Left atrium

An atrial septal defect (ASD) is a condition where there is a hole between the two upper chambers (atria) in a baby's heart. The defect may cause an increased volume of blood to pass through the hole and into the right side of a baby's heart, causing it to stretch and become larger. Some ASDs are small and do not need treatment. Larger ASDs sometimes cause the right side of a baby's heart to be overloaded with blood and may need an operation to correct.

Further information from: **Atrial septal defect - British Heart Foundation**

## Atrial tachycardia

Atrial tachycardia is an unusual heart rhythm where the upper chambers (the atria) of a mother's heart beat too quickly. (HSIB maternity team)

## Augmentation of labour

Augmentation of labour is the process of stimulating the uterus to increase the frequency, duration and intensity of contractions after the onset of spontaneous labour. If uterine contractions are not strong or regular enough the drug oxytocin may be given. Oxytocin is one of the hormones naturally produced by mothers in labour and assists in increasing the frequency of uterine contractions. Oxytocin is given through a drip and the timing, of the subsequent uterine contractions, are monitored closely. The amount of oxytocin given via the drip can be altered if uterine contractions are too sparse, or become too frequent. (HSIB maternity team)

## Autism

Autism, sometimes referred to as autism spectrum condition (ASC), is a lifelong neurodevelopmental condition that may affect how a mother is able to communicate and interact with the environment around them.

Further information from: **National Autistic Society - what is autism?**



### **Automated external defibrillator**

An automated external defibrillator (AED) is a portable device that can deliver an electric shock through a mother's chest to her heart. The aim of the shock is to stop an abnormal heart rhythm and allow a normal rhythm to resume following cardiac arrest. (HSIB maternity team)

### **Auto immune hepatitis**

Auto immune hepatitis is a long-term liver condition where a mother's/baby's immune system attacks their liver cells. (HSIB maternity team)

### **Autonomic neuropathy**

Autonomic neuropathy describes damage to a mother's nerves that control involuntary bodily processes, such as digestion, bladder function and control of blood pressure.

Further information from: **NHS - neuropathy**

### **Autosomal recessive polycystic kidney disease**

Autosomal recessive polycystic kidney disease (ARPKD) is a rare inherited childhood condition where the development of a baby's kidneys and liver is abnormal. ARPKD often causes serious problems soon after birth. Less severe cases may not become obvious until a child is older.

Further information from: **NHS - ARPKD**

# B

## **Bacterial vaginosis**

Bacterial vaginosis (BV) is a common cause of unusual vaginal discharge. It is not an infection. It is caused by a change in the natural balance of bacteria in the vagina. Symptoms may include a change to the colour and consistency of vaginal discharge, such as becoming greyish-white, thin and watery. 50% of mothers with bacterial vaginosis do not have any symptoms.

Further information from: **NHS - bacterial vaginosis**

## **Bag valve mask**

A bag valve mask (BVM) is a self-inflating device, providing ventilation and supply of medical gases. A BVM is the recognised method for providing rescue ventilation breaths to a mother/baby who is not breathing effectively. (HSIB maternity team)

## **Bandl's ring**

An area of muscle near the lower part of the womb, that becomes more and more contracted, during labour, making a 'ring of muscle' around a baby. It occurs if the labour is not progressing, usually because a baby is in an unfavourable position, or if a baby is too big for a mother's pelvis. Vaginal birth is not possible if a Bandl's ring is present, and if labour continues, there is a chance that the uterus may rupture. (HSIB maternity team)

## **Bardet Biedl syndrome**

Bardet-Biedl syndrome (BBS) is a condition present from birth that may affect several parts of a mother's/baby's body. BBS may cause obesity, vision loss, polydactyly (additional finger/toes), genitals not to develop as expected, learning disability and kidney failure. (HSIB maternity team)

## **Basic life support**

Basic life support (BLS) refers to a set of basic life-saving techniques that lay people, first-responders or healthcare providers can initially give to a mother/baby whose heart or breathing has stopped. These procedures can be used to keep someone alive until emergency medical teams can get to the person. (HSIB maternity team)

## **BASICS**

The British Association for Immediate Care (BASICS) is a registered charity. Doctors and other healthcare professionals volunteer to be on-call and provide an additional level of clinical support to local ambulance crews. (HSIB maternity team)



## Bedside testing for rupture of membranes

There are a number of commercially available rapid bedside testing kits for identifying if the membranes (bag) of amniotic fluid (waters) that surround the baby in the womb have broken. A swab collects fluid from the top of the vagina which is then processed at the bedside using molecular techniques to identify specific proteins from the amniotic fluid. A positive test would indicate the membranes had broken. (HSIB maternity team)

## Bell's palsy

Bell's palsy is temporary weakness or lack of movement affecting one side of a mother's/baby's face. The condition usually resolves without treatment.

Further information from: **NHS - Bell's palsy**

## Beta blockers

Beta blockers work mainly by slowing down the heart. They do this by blocking the action of hormones like adrenaline.

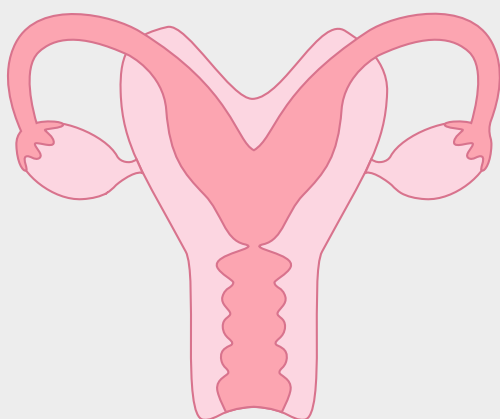
Further information from: **NHS - beta blockers**

## Beta-lactam antibiotics infusion group study - BLING III

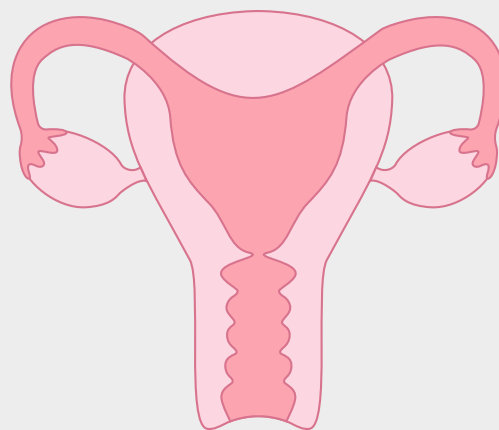
Beta-lactam antibiotics infusion group study - BLING III is a multicentre trial to determine whether a continuous or intermittent infusion of beta-lactam antibiotics is more effective in critically ill patients. (HSIB maternity team)

## Bicornate uterus

Bicornate uterus



Normal uterus



A bicornate uterus is heart shaped. It does not usually cause any difficulty in a mother becoming pregnant, or in early pregnancy. It may lead to miscarriage or premature birth, and may prevent a baby turning into a head down presentation. (HSIB maternity team)

### **Bicuspid aortic valve**

A bicuspid aortic valve is an inherited form of heart disease in which two of the flaps of a mother's/baby's aortic valve fuse during development in the womb. This results in a two flapped valve (bicuspid valve) instead of the usual three flap valve (tricuspid). (HSIB maternity team)

### **Big Baby clinical trial**

The purpose of the Big Baby clinical trial is to find out if starting labour at 38 weeks, makes it less likely that shoulder dystocia will happen in mothers whose babies appear to be bigger than expected on ultrasound. The trial is recruiting from 75 NHS trusts across the United Kingdom.

Further information from: **Big Baby clinical trial**

### **Bilateral pleural effusion**

The pleura are thin membranes that line a mother's/baby's lungs inside the chest and assist breathing. Bilateral pleural effusions are a build up of excess fluid between the layers of the pleura in both lungs. (HSIB maternity team)

### **Bile acids**

Bile acids flow in bile from a mother's liver to her gut to help in the digestion of food. (HSIB maternity team)

### **Bi-level positive airway pressure**

Bi-level positive airway pressure (BiPAP) is a mode of ventilation used to help a mother/baby to breathe. This can be administered by a face mask or through mechanical ventilation. (HSIB maternity team)

### **Biliary stasis**

Bile is a substance that helps the digestion of fatty food. Biliary stasis is a condition in which the flow of bile is backed up or the production of bile is suppressed within a mother's liver. This may cause a mother difficulty in digesting food. (HSIB maternity team)

### **Biliary stenosis**

Bile is a substance that helps in digestion of fatty food. Biliary stenosis is a condition where a mother's bile duct (the tube that takes bile from the liver to the small bowel) gets smaller or narrower. Biliary stenosis can cause difficulty digesting food. As the bile cannot be removed from the body, some of the waste products can build up in a mother's blood. (HSIB maternity team)

### **Bilious vomit**

Bilious vomiting occurs when bile is purged along with the gastric contents. It can be due to a bowel obstruction. (HSIB maternity team)

### **Bilobar (bipartite) placenta**

Placentae are usually disc shaped. In some cases they are bilobar and develop as two smaller lobes of about the same size which may be joined together. (HSIB maternity team)

### **Bimanual uterine compression**

Bimanual uterine compression is performed by a clinician placing one hand inside a mother's vagina and pushing against the body of her uterus. The clinician's other hand compresses the top of the mother's uterus from above through her abdominal wall. (HSIB maternity team)

### **Biomechanics of pregnancy**

Biomechanics describes the science behind the movement and function of a human body and how the systems work together to function. During pregnancy, biomechanical changes occur in a mother's body to support the growth, and eventually birth, of a baby. The principle of these changes may be explored in greater detail by a mother to enhance her pregnancy and birth experience. (HSIB maternity team)

### **Biophysical profile**

A biophysical profile is an ultrasound assessment of a baby which includes assessment of the baby's body or limb movements, their muscle tone, their breathing movements and the level of amniotic fluid around them.

A biophysical profile may be performed to identify babies at risk of poor outcomes. (HSIB maternity team)

### **Biparietal diameter**

(a measurement of a baby's head which may be assessed during an ultrasound scan)

### **Bipolar disorder**

Bipolar disorder is a mental health condition that affects a mother's mood, varying from mania (an extreme high) to severe depression (feeling very low and lethargic). These episodes may affect a mother's everyday life. Each episode of bipolar disorder may last several weeks, or longer.

Further information from: **NHS - bipolar disorder**

### **Birmingham symptom specific obstetric triage system**

Birmingham symptom specific obstetric triage system (BSOTS) is a tool that may be used by clinicians to support their decision making, when assessing the clinical risk to a mother and her baby (delete if postnatal). (HSIB maternity team)

## Birth ball

Birth balls may be used by mothers in labour to help them maintain upright or active birthing positions. Many are large enough and firm enough to sit on. Some birth balls are smaller and shaped like a peanut. These may be used by a mother while lying or sitting in bed and may help a mother to maintain more active birth positions. (HSIB maternity team)

## Birth centre

Birth centres (sometimes called midwife led units) provide a comfortable environment, for a mother in labour, which is more like being at home. A birth centre can be inside or next to a main hospital obstetric unit (called 'alongside') or in a different place (called 'freestanding'). They do not have the same medical facilities as a hospital obstetric unit; they have medical equipment to deal with an emergency for a mother or baby. Sometimes a mother or baby may require transfer to a hospital obstetric unit for additional care and treatment.

Further information from: **NHS - Birth centre**

## Birthrate Plus<sup>®</sup> acuity system

The Birthrate Plus<sup>®</sup> acuity system is a staffing toolkit which supports:

- assessing the factors needed in setting the minimum number of maternity staff a service needs.
- 'real time' assessments of maternity staff levels during the intrapartum phase of care in relation to mothers' needs.

The scoring allows an hour by hour assessment of the labour ward and describes the number of midwives needed to meet the needs of mothers, based on the minimum standard of one to one care and increased ratios of midwife time for mothers with additional or high risk needs. (HSIB maternity team)

## Birth related injury

(An injury to a baby which happens during the process of birth)

## Bishop Score

The Bishop score is a tool which may be used by some clinicians to assess the condition of a mother's cervix. The assessment considers the softness, position and length of a mother's cervix, how open the cervix is and how deep her baby's head is in her pelvis, giving a score out of 10. (HSIB maternity team)

## Biventricular failure

Biventricular failure occurs when both the left and right ventricles (pumping chambers) of a mother's heart are unable to pump blood around the body properly. This may cause a mother's heart output to be weaker than expected. (HSIB maternity team)

## Bi-ventricular hypertrophy

Bi-ventricular hypertrophy is a condition where there is thickening in both walls of the ventricles (the pumping chambers to the lungs) of a baby's heart. (HSIB maternity team)

## Bladder distension/filling

Bladder distension/filling is a technique which may be used in the event of a cord prolapse, if the diagnosis-to-birth interval is likely to be prolonged. Filling a mother's bladder may raise the presenting part (head or bottom) of the baby and reduce the pressure on the umbilical cord.

Further information from: **RCOG - umbilical cord prolapse**

## Bladder wash out

A bladder wash out is a procedure used when a mother's urinary catheter is not draining as expected. A bladder wash out involves flushing a mother's bladder with sterile normal saline (salt water) to remove any blockage and help the catheter to drain freely. (HSIB maternity team)

## Bleeding in a baby's brain

### (delete the definitions below which are not needed)

There are several different names for bleeding in a baby's brain, depending on where the blood has come from and accumulated.

- **Intracranial haemorrhage.** When bleeding occurs anywhere inside a baby's skull or brain it may be referred to as an intracranial haemorrhage.
- **Intracerebral haemorrhage.** When bleeding occurs anywhere inside a baby's brain it may be referred to as an intracerebral haemorrhage.
- **Intraparenchymal bleeding.** When bleeding occurs within brain tissue it may be referred to as an intraparenchymal haemorrhage.
- **Intraventricular haemorrhage.** When bleeding occurs in the ventricles (fluid filled spaces) of a baby's brain it may be described as an intraventricular haemorrhage.
- **Subarachnoid haemorrhage.** When bleeding occurs in the space between the membrane surrounding a baby's brain and the brain itself, it may be called a subarachnoid haemorrhage.
- **Subgaleal haemorrhage.** When bleeding occurs in the space between the skull and the scalp it may be called a subgaleal haemorrhage.
- **Extra-axial haemorrhage.** Refers to bleeding that occurs within the skull but outside the brain tissue.

When the active phase of bleeding has stopped, the haemorrhage may then be referred to as a haematoma. (HSIB maternity team)

## Blood culture test

A specimen of blood taken from a mother/baby's blood is mixed with nutrients designed to encourage the growth of bacteria. This can indicate whether a bacterial infection is present in the blood, and which antibiotic treatment is required to treat it. (HSIB maternity team).





## Blood gas

As well as carrying oxygen from the lungs, blood also carries carbon dioxide back to the lungs, so we can breathe it out as waste gas. Measuring the levels of carbon dioxide, as well as other waste chemicals carried by the blood, can give information about a mother's/baby's overall condition. It can also help tell how other organs, such as kidneys, are working. The sample can be taken from an artery (arterial blood gas (ABG)), a vein (venous blood gas (VBG)) or from a capillary. (HSIB maternity team)

## Blood group incompatibilities

In some pregnancies, mothers and babies have incompatible blood groups. This may lead to a mother developing antibodies in her blood, which can cross the placenta and affect her baby. Examples of these antibodies are Anti D, Anti C, Anti M, Kell, Kidd and Duffy. Anti D is the most common antibody and occurs in mothers who have a Rhesus negative blood group. Babies may be affected in varying degrees dependent on the type and amount of maternal antibody they are exposed to. Where antibodies are identified, mothers and babies are monitored closely for developing complications. (HSIB maternity team)

## Blood pressure in pregnancy

Blood pressure is recorded with two numbers. The systolic pressure (higher number) is the force at which the heart pumps blood around the body. The diastolic pressure (lower number) is the pressure in the arteries when the heart rests between beats. They are both measured in millimeters of mercury (mmHg). As a general guide: high blood pressure in pregnancy is considered to be 140/90 mmHg or higher. (HSIB maternity team)

## Blood pressure profile

(a series of blood pressure measurements taken over a given time)

## Blood products

If you prefer to list all blood products in one definitions box, please use this one and delete those you don't need.

- **Cryoprecipitate** - extracted from thawed frozen blood plasma. It is rich in blood-clotting factors.
- **Fibrinogen concentrate** - a blood clotting factor
- **Fresh frozen plasma** - Fresh frozen plasma is made from the liquid part of blood. It is used to treat conditions where there are low clotting factors in the blood.
- **Platelets** - Specialised cells necessary for blood clotting. Platelet levels are measured with a full blood count (FBC) blood test
- **Red cells** - the oxygen-carrying cells in blood

## **Bobble hat pathway**

A bobble hat pathway of care may be used in a hospital environment with the aim of improving safety for babies. A baby may be risk assessed at birth and based upon this they will be given a bobble hat which is either green, yellow or red. The hat colour reflects the level of risk and the ongoing care which a baby may need. Risk factors include gestation at birth, birth weight, risk of infection and type of birth. Support measures on the pathway includes maintaining a baby's temperature and ensuring a baby's feeding is supported and adequate. (HSIB maternity team)

## **Body mass index in pregnancy**

BMI is a measure for indicating nutritional status in adults. It is defined as a person's weight in kilograms divided by the square of the person's height in metres (kg/m<sup>2</sup>) (WHO). The World Health Organisation (WHO) classifies BMI as follows:

| <b>BMI</b>  | <b>Nutritional status</b> |
|-------------|---------------------------|
| Below 18.5  | Underweight               |
| 18.5 - 24.9 | Normal weight             |
| 25.0 - 29.9 | Pre-obesity               |
| 30.0 - 34.9 | Obesity class I           |
| 35.0 - 39.9 | Obesity class II          |
| Above 40    | Obesity class III         |

Obesity in pregnancy is associated with an increased risk of several serious adverse outcomes, including miscarriage, fetal congenital anomaly, thromboembolism, gestational diabetes, pre-eclampsia, dysfunctional labour, postpartum haemorrhage, wound infections, stillbirth and neonatal death. Fetal heart rate monitoring can be a challenge, and closer surveillance is required, with recourse to fetal scalp electrode or ultrasound assessment of the fetal heart if necessary. (RCOG 2018)

## **Bone marrow biopsy**

A bone marrow biopsy is a procedure where a needle is inserted into the centre of a mother's/baby's large bone and a sample of the marrow (a soft jelly) is removed. The cells of the bone marrow can then be tested. (HSIB maternity team)

## **Borderline personality disorder**

Borderline personality disorder (also known as emotionally unstable personality disorder) is a mental health condition. Borderline personality disorder may cause a range of symptoms including;

- relationship difficulties
- repeated episodes of a person harming themselves
- threats of suicide
- depression



- feelings of anger
- impulsive behaviours
- social difficulties
- loss of touch with reality or interpreting what is going on around you differently to others.

Further information from: **NHS - borderline personality disorder**

### **Brace suture**

A brace suture is a surgical technique designed to maintain the contraction of the uterus and prevent further bleeding. (HSIB maternity team)

### **Brachial plexus injury (highlighted section may need removal if not a shoulder dystocia)**

The brachial plexus nerves are found between the neck and shoulders of a baby and control the muscles in the chest, shoulder, arms and hands. During birth, the nerves may be stretched or torn causing a brachial plexus injury (BPI). This may cause loss of movement in the arm. The most common type of BPI is called Erb's palsy. It is usually temporary, and movement will return within hours or days. Permanent damage is rare. BPI occurs in about one in ten (10%) babies who are born following a shoulder dystocia.

Further information from: **RCOG - shoulder dystocia**

### **Brainstem**

The brainstem is the lower part of the brain that is connected to the spinal cord. The brainstem controls most of the body's automatic functions such as breathing, blood pressure and heart rate. It is also important in the brain's core functions, such as consciousness, awareness and movement. A person is confirmed as being dead when their brainstem function is permanently lost.

Further information from: **NHS - inform**

### **Brain stem death**

Brain stem death is when a mother/baby on an artificial life support machine no longer has any brain function. This means they will not regain consciousness or be able to breathe without support.

For more information: **NHS - brain stem death**

### **Brainstem test**

A series of tests done by two doctors to diagnose brainstem death. The doctors will run a series of tests. Both doctors have to agree on the results for a diagnosis of brain death to be confirmed. The tests are carried out twice to minimise any chance of error.

Further information from: **NHS - brain-death**

## Braxton Hicks

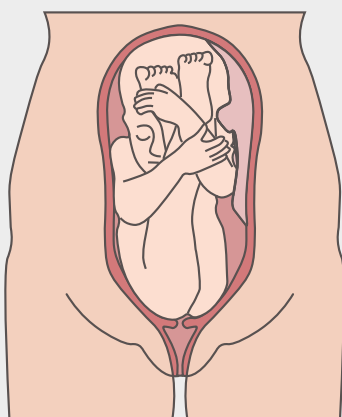
Braxton Hicks are when a mother's uterus contracts and relaxes. They may be painless or uncomfortable and happen infrequently without increasing in frequency or strength like labour contractions. They do not cause a mother's cervix to dilate. (HSIB maternity team)

## Breathing tube introducer

A breathing tube introducer, often called a bougie, is a flexible tube used to support the intubation of a mother/baby. It allows a mother's/baby's windpipe to be identified and supports the correct placement of the breathing tube. (HSIB maternity team)

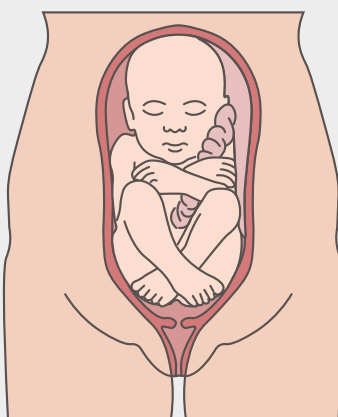
## Breech presentation

**Extended or frank breech**



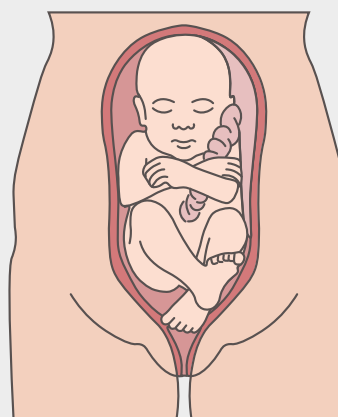
The baby is bottom first, with the thighs against the chest and feet up by the ears. Most breech babies are in this position.

**Flexed breech**



The baby is bottom first, with the thighs against the chest and the knees bent.

**Footling breech**



The baby's foot or feet are below the bottom.

When a baby is coming feet or bottom, (rather than head) first.

Further information from: **RCOG - breech baby**, **RCOG - external cephalic version (ECV) guideline** and **RCOG - breech presentation guideline**

## Brisk reflexes

(when a normal reflex, such as a knee jerk reaction, is exaggerated)

## **Broad ligament haematoma**

A broad ligament haematoma is a rare, life threatening complication of birth. The broad ligament is a structure that is found in a mother's pelvis and is attached to her uterus, fallopian tubes and ovaries. If damage occurs this may cause bleeding and a collection of blood in the area. Prompt management is needed as a mother may lose a large amount of blood in a short time. (HSIB maternity team)

## **Bronchial challenge test**

A bronchial challenge test measures the sensitivity of the airways in a mother's lungs. It may help to diagnose asthma. During the test, a mother will be given gradually increasing doses of a medication to breathe in. The medication will irritate the airways and cause them to get narrower. A mother with asthma will be affected by a lower dose of this medication than a mother with healthy lungs. (HSIB maternity team)

## **Bronchial lavage**

Bronchial lavage is a procedure during which a mother's lungs are washed out with a normal saline (a sterile salt and water mixture). A sample of the fluid may then be collected from the lung and sent to the laboratory for testing. (HSIB maternity team)

## **Bronchoalveolar lavage**

Bronchoalveolar lavage (BAL) is a procedure that is sometimes done during a bronchoscopy, (the visual examination of the inside of a mother's lungs) or with a suction catheter used to clear secretions from a mother's lungs. During BAL a sample these secretions are collected from the lungs and sent for testing. (HSIB maternity team)

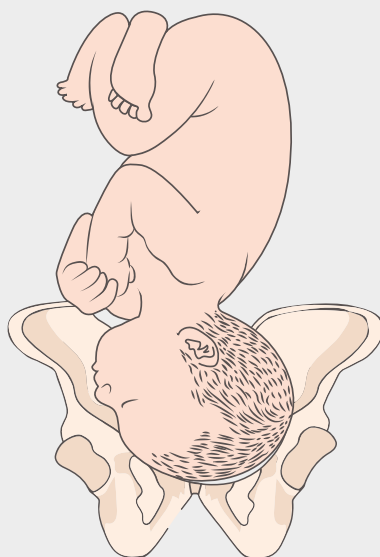
## **Bronchoscopy**

A bronchoscopy is a procedure where a narrow, flexible, tube with a camera (a bronchoscope) is used to examine the inside of a mother's lungs. The bronchoscope is passed, via a nostril, into the area of the lung required. A bronchoscopy may be done to check the condition of the inside of the lungs. Samples of tissue or mucous can be taken and sent for testing in a laboratory. (HSIB maternity team).

## **Bronchopleural fistula**

A bronchopleural fistula is an abnormal connection that may develop between a mother's/baby's large airways (the bronchi) and the space between the membranes that line their lungs (the pleural cavity). (HSIB maternity team)

## Brow presentation



Brow presentation describes a baby, who is presenting head-first with their head and neck slightly extended and their chin tilted upward. In this position, the baby may enter a mother's pelvis brow first. Brow presentation is rare and vaginal birth may be difficult, as the widest part of the baby's head may not easily fit through the mother's pelvis. Some babies may naturally flex their head down, correcting the brow presentation, as the mother begins to push. (HSIB maternity team)

## Brugada syndrome

Brugada syndrome is a rare condition that affects the way electrical signals pass through a mother's heart. It can be tested for using an ECG.

Further information from: **NHS - Brugada Syndrome**

## Bubble echocardiogram

A bubble echocardiogram is an ultrasound of a mother/baby's heart combined with an injection of sterile salty water. The salty water is mixed with a small amount of the mother/baby's blood and harmless tiny bubbles are formed. These are then tracked by the ultrasound to identify abnormal blood flow, which may show the presence of a hole in the heart. (HSIB maternity team)

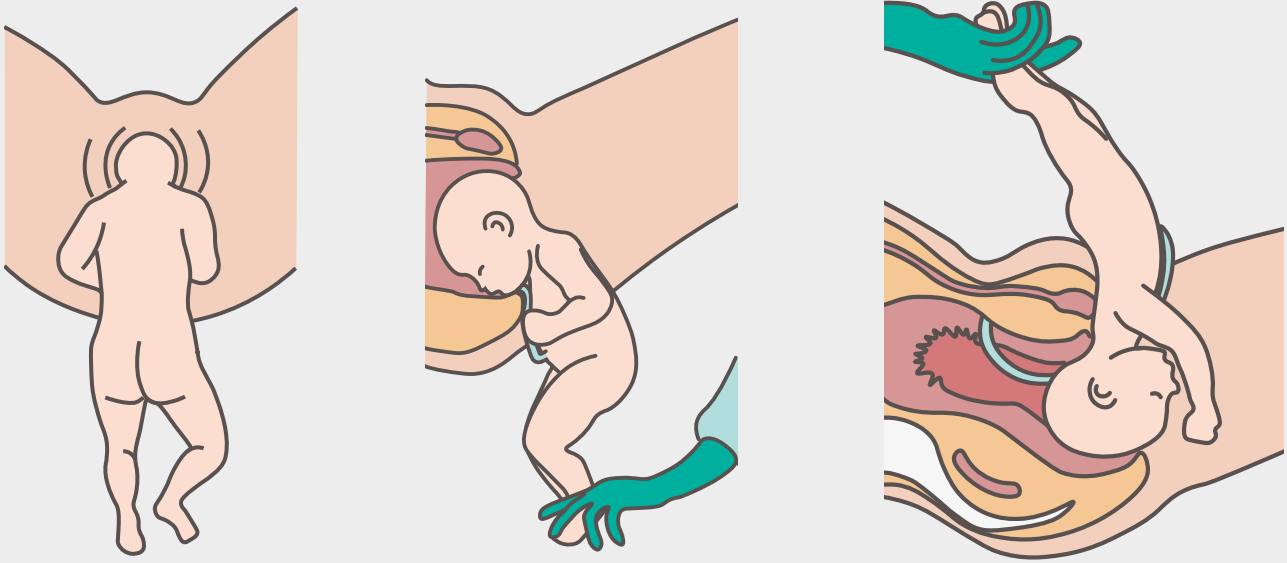
## Budd-Chiari syndrome

A disorder affecting the liver and blood vessels, where blood flowing into the liver has difficulty in being able to flow out. (British Liver Trust, 2019)

## Bullous lung disease.

Bullous lung disease describes the development of spaces within the lungs that do not allow the lungs to expand and contract as expected. (HSIB maternity team)

## Burns Marshall method



The Burns Marshall method may be used during a vaginal breech birth. When only a baby's head is left to be born, they are held by the ankles which are then lifted in an upwards curve towards a mother's abdomen, with the aim to birth the baby's head. (HSIB maternity team)

## Burst suppression

Burst suppression is a pattern seen on a baby's cerebral function monitoring (CFM). It shows periods of electrical activity (spikes) alternating with periods of no brain activity (low baseline). The pattern indicates a severe abnormality of the CFM and suggests very suppressed brain activity. (HSIB maternity team)

# C

## **C-reactive protein test**

This is a blood test used to help diagnose conditions that cause inflammation or to check for the possibility of infection. (HSIB maternity team)

## **Calcium chloride**

Calcium chloride is used during cardio-pulmonary resuscitation when there is also a raised potassium level. (HSIB maternity team)

## **Canavan disease**

Canavan disease is a condition present from birth which causes deterioration of the white matter in a baby's brain. Canavan disease may be diagnosed in the first year of a baby's life, there is no cure and it is life limiting. (HSIB maternity team)

## **Cancer antigen 125 test**

A cancer antigen 125 test (CA 125 test) measures the amount of cancer antigen 125 (a protein) in a mother's blood. It may be used to look for early signs of ovarian cancer in mothers with a very high risk of the disease. (HSIB maternity team)

## **Candida albicans**

Candida albicans (sometimes called thrush) is a common yeast infection that may affect a mother/father/baby. It is usually harmless, may be uncomfortable and may return if not treated. If one partner has thrush you may treat both to stop it being transmitted back and forth.

Further information from: **NHS - Thrush**

## **Cannula**

(a thin tube inserted into a mother/baby's vein)

## **Capillary blood gas testing**

As well as carrying oxygen from the lungs, blood also carries carbon dioxide back to the lungs, so it can be breathed out as waste gas.

Measuring the levels of carbon dioxide, oxygen, acid and base levels in a baby's blood, can give clues about their overall condition as well as their breathing. It can also help tell how other organs, such as the kidneys, are working. This blood can be collected from a baby's blood vessels (a venous or arterial blood gas) or by making a small prick in the skin and testing the droplet of blood that collects there (a capillary blood gas)

## **Capillary blood glucose**

A blood glucose measurement obtained from a drop of blood, usually from a mother's finger/baby's heel. The result is usually higher than a result from a sample taken directly from a vein. (HSIB maternity team)



## **Capillary malformation**

Capillary malformation, sometimes known as a port-wine stain, is a type of birth mark that appears as a flat red or purple patch of skin. Capillary malformations occur early in pregnancy and results from abnormal development of blood vessels under a baby's skin. (HSIB maternity team)

## **Capillary refill time**

The capillary refill time is the length of time taken for skin which has been blanched by pressure to return to its normal colour. It is used as a measure of how well the circulation is functioning. (HSIB maternity team)

## **Capnograph**

A capnograph is a device that measures exhaled carbon dioxide. This may be measured using a colour change device (colour change capnograph). Where the colour changes if carbon dioxide is detected or can measure the amount of carbon dioxide detected.

## **Caput**

Caput is a temporary swelling on a baby's head. It may be associated with prolonged labour. Following birth, it usually gets better on its own. (HSIB maternity team)

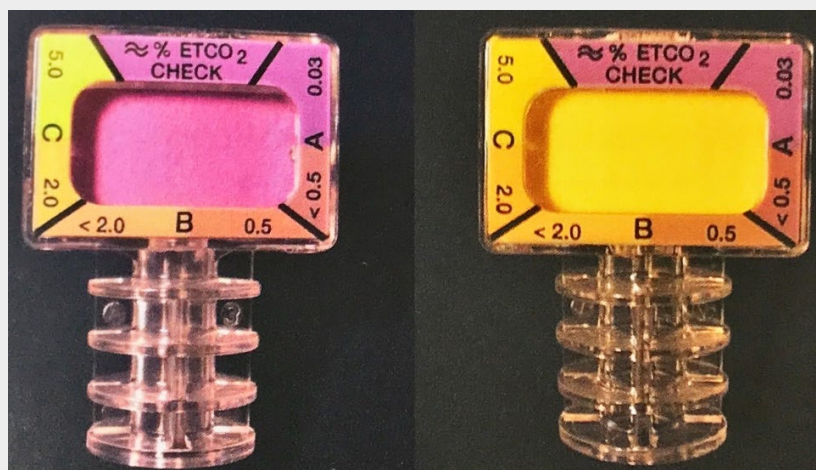
## **Carbamoyl phosphate synthetase I deficiency**

Carbamoyl phosphate synthetase I deficiency is an inherited condition where a mother/baby is unable to breakdown and remove urea from the body. This causes an increase of ammonia in the body. (HSIB maternity team)

## **Carbapenemase producing enterobacteriaceae**

Enterobacteriaceae are bacteria that usually live harmlessly in a mother's gut. This is called 'colonisation' (a mother is said to be a 'carrier'). If the bacteria get into the wrong place, such as a mother's bladder or bloodstream they can cause infection. CPE are enterobacteriaceae which have become resistant to powerful antibiotics such as carbapenems and most other penicillin-like antibiotics. (HSIB maternity team)

## Carbon dioxide monitoring (baby)



(An example of one type/colour)

The neonatal team may use a carbon dioxide (CO<sub>2</sub>) sensor/colour change capnograph. The sensor is attached to a baby's breathing tube and will change colour when CO<sub>2</sub> is detected. The colour change indicates that the breathing tube is in the correct place and that there is a heart beat or effective cardiac compressions which are moving CO<sub>2</sub>, present in the blood, back to a baby's lungs. The CO<sub>2</sub> is then exhaled (breathed out). Sometimes when a breathing tube is inserted correctly, there may be no colour change. This is because there is no circulation of a baby's blood around their body or if the breathing tube is blocked. (HSIB maternity team)

### Carbon monoxide test

Carbon monoxide (CO) is a poisonous gas that reduces the amount of oxygen to both mother and baby. The CO test is a simple non-invasive breath test which gives women an immediate indication of the CO level in their body. CO is found in very high concentrations in tobacco smoke (**NHS - smoking in pregnancy**). CO levels greater than 3 parts per million (ppm) suggest an increased exposure to CO, most commonly through smoking or due to the effect of other people's smoking on a mother. Alternative causes of elevated CO level can be a faulty domestic gas boiler and immediate action is required to investigate this. (HSIB maternity team)

### Cardiac arrest with pulseless electrical activity

Cardiac arrest with pulseless electrical activity (PEA) describes when the electrical activity in a mother's heart is not strong enough to make the heart beat effectively. Blood is not pumped around the body and there is no detectable pulse. PEA can sometimes be treated if the cause is identified and corrected. PEA cannot be treated with an electric device to shock the heart. (HSIB maternity team)

### Cardiac arrhythmia

(when a mother's/baby's heart beats in an abnormal rhythm)

## **Cardiac catheter ablation**

During cardiac catheter ablation a catheter (soft thin wire) is guided through one of a mother's vessels into her heart where it can identify abnormal electrical activity. It may be used to correct abnormalities of a mother's heart rhythm such as supraventricular tachycardia (excessively fast heart rate) or atrial fibrillation (irregular and chaotic heartbeat). When an abnormality is found, energy is passed through the wire to correct the abnormality. Cardiac catheter ablation may be carried out under general anaesthetic. (HSIB maternity team)

## **Cardiac catheterisation and coronary angiography**

Cardiac catheterisation is an invasive diagnostic procedure that provides important information about the structure and function of the heart. It usually involves taking X-rays of the heart's arteries (coronary arteries) using a technique called coronary angiography or arteriography. The resulting images are known as coronary angiograms or arteriograms.

Further information from: **NHS - cardiac catheterisation**

## **Cardiac/chest compressions (baby)**

Cardiac/chest compressions are used as part of neonatal resuscitation following inflation and ventilation breaths, if a baby's heart rate is less than 60 bpm. The aim is to move oxygenated blood from a baby's lungs to their coronary arteries to allow the heart to pump blood to the body. (HSIB maternity team)

## **Cardiac compressions (mother)**

Cardiac compressions are used as part of a mother's resuscitation to mimic the action of her heart and move oxygenated blood around her body to the vital organs. (HSIB maternity team)

## **Cardiac tamponade**

Cardiac tamponade, also known as pericardial tamponade, is when fluid in the sac around the heart (the pericardium) builds up, resulting in the compression of a mother's/baby's heart. It is a medical emergency. (HSIB maternity team)

## **Cardiogenic shock**

Cardiogenic shock is a life-threatening condition in which a mother's heart can no longer pump enough blood and oxygen around the body, to support other vital organs. (HSIB maternity team)

## **Cardiomegaly**

Cardiomegaly is a condition where a mother's/baby's heart is enlarged. Cardiomegaly occurs if a mother's/baby's heart is more than 50 percent bigger than the inner diameter of their rib cage. (HSIB maternity team)

## Cardiomyopathy

Cardiomyopathy is a general term for diseases of a mother's/baby's heart muscle, where the walls of the heart chambers have become stretched, thickened or stiff. This affects the heart's ability to pump blood around a mother's/baby's body. (HSIB maternity team)

## Cardiopulmonary resuscitation

Cardiopulmonary resuscitation (CPR) is a potentially lifesaving procedure for someone who is in cardiac arrest (their heart has stopped beating). CPR helps to pump blood around a person's body when their heart cannot. This includes chest compressions, often with artificial ventilation to try to preserve brain function until further measures can be taken to restart the heart.

Further information from: **NHS - CPR**

## Cardiopulmonary resuscitation induced consciousness

Cardiopulmonary resuscitation (CPR) induced consciousness may occur when a mother's heart has stopped (cardiac arrest). If a mother's blood pressure increases and her brain is receiving oxygen from CPR then CPR induced consciousness may occur. Signs of CPR induced consciousness may include purposeful arm movements, agitation and attempts to push a clinician away, agonal breaths, eye opening, awareness of painful stimuli and verbal and non-verbal communication. (HSIB maternity team)

## Cardiotocograph

A cardiotocograph (CTG) is an electronic means of recording an unborn baby's heart rate pattern, to assess their wellbeing. This is used both during the antenatal period, and during labour. During labour, a mother's contractions are also monitored by this machine which produces a printed or electronic record referred to as the CTG. It is usually performed externally, using two devices (transducers) placed on a mother's abdomen, or by a fetal scalp electrode (FSE) a small clip placed on the unborn baby's head or bottom to monitor the heart rate. A special probe (pulse oximeter) may be placed on a mother's finger, to simultaneously record her heart rate, and ensure it is the baby's heart rate pattern being monitored.

Further information available from: **NICE - Fetal monitoring in labour**

## Cardiovascular

(the heart and blood vessels)

## Catastrophic antiphospholipid syndrome

Catastrophic antiphospholipid syndrome is a rare life threatening form of antiphospholipid syndrome in which widespread blood clots in a mother's blood stream results in multi-organ failure. (HSIB maternity team)



## Capillary gas measurement

A capillary sample of blood may be taken from a baby's heel. This can indicate a baby's wellbeing. A pH of less than 7.0; or cord base excess (BE) of less than -16 mmol/L, may be associated with hypoxic ischaemic encephalopathy (HIE). These results may indicate it is necessary to perform therapeutic cooling on a baby. (HSIB maternity team)

## Caput

Caput is a temporary swelling on a baby's head. It may be associated with prolonged labour. Following birth, it usually gets better on its own. (HSIB maternity team)

## Carpal tunnel syndrome

Carpal tunnel syndrome (CTS) is pressure on a nerve in a mother's wrist. CTS may cause tingling, numbness and pain in the hand and fingers. Further information from: **NHS - carpal tunnel syndrome**

## Category 1 ambulance prioritisation

A category 1 ambulance priority is for time critical and life-threatening events requiring immediate intervention, such as a cardiac arrest (when a mother's/baby's heart stops); respiratory arrest (when a mother/baby stops breathing); an obstructed airway or ineffective breathing.

An ambulance service will aim for a response within a mean (average) of 7 minutes, 9 out of 10 callers will receive a response within 15 minutes. (HSIB maternity team)

## Cauda equina syndrome

Cauda equina syndrome (CES) is a rare complication involving the narrowing of a mother's spinal canal at the level of the cauda equina (the roots of the lowest nerves of the back). CES is characterised by a collection of symptoms resulting from the compression of these nerves. It can have an acute (fast) onset due to a sudden cause or, following chronic back pain, it can be slow and progressive. If not managed quickly CES can lead to permanent problems with passing faeces and urine, sexual dysfunction or paralysis. (HSIB maternity team)

## Cavernoma

A cavernoma is a cluster of abnormal blood vessels, usually found in the brain and spinal cord, that can cause a structural weakness and tendency to bleed. A typical cavernoma looks like a raspberry. It's filled with blood that flows slowly through vessels that are like "caverns". A cavernoma can vary in size from a few millimetres to several centimetres across. (HSIB maternity team)

## **Cavernous sinus thrombosis**

The cavernous sinuses are hollow spaces located under a mother's brain, behind each eye socket. The cavernous sinus drains into the jugular vein which is a major blood vessel that carries blood away from the brain. A cavernous sinus thrombosis is a term used to describe when a blood clot forms within the cavernous sinus blood vessels in a mother's brain. (HSIB maternity team)

## **Cavum septum pellucidum**

The cavum septum pellucidum (CSP) is a structure in a mother's/baby's brain. During antenatal ultrasound scan the CSP may be assessed and this can be part of a screening tool for other brain conditions. (HSIB maternity team)

## **Cell salvage**

Cell salvage is used to return a mother's own blood to her body during an operation. Blood from the operation site is collected by a cell saver machine, where it is processed and cleaned. The red blood cells are then transfused back to the mother. (HSIB maternity team)

## **Central cyanosis**

Central cyanosis is a bluish discoloration of the lips, skin or tongue, it is usually a sign there is not enough oxygen in the blood. Assessment of central cyanosis is subjective and can be more challenging in mothers who have black or brown skin. Further information from: **NHS - cyanosis**

## **Central monitoring system**

A system to allow remote viewing of one or more CTGs by clinicians outside the birth room. (HSIB maternity team)

## **Central venous access device**

A central venous access device (CVAD) is a soft tube that can be inserted into a mother's vein that leads to her heart. CVAD have many uses which include;

- Central venous pressure readings
- Emergency use (fluid replacement)
- Intravenous access when other veins are not accessible
- Blood sampling
- Administration of medicines.

(HSIB maternity team)

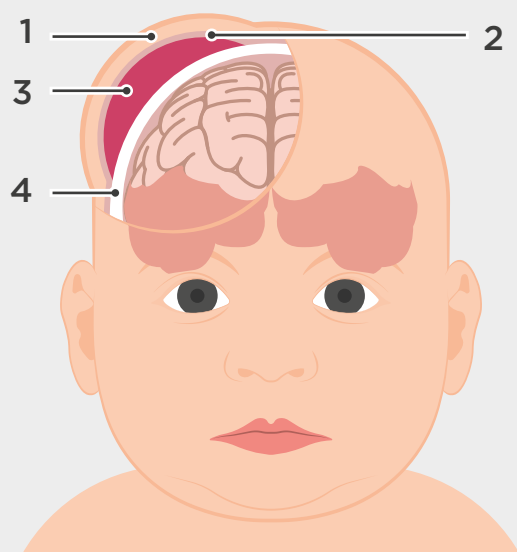
## **Central venous catheter**

A central venous catheter (CVC) is a tube that is inserted into a vein. This may be a vein located under a mother's collarbone (subclavian vein), in the neck (internal jugular vein) or the groin (femoral vein). The tip of the catheter is passed along the vein until it is positioned in a larger vein - the superior or inferior vena cava. The CVC is made from polyurethane and will be replaced periodically or if there are signs of infection. The catheter is secured in position with two stitches which stay in place until the device is removed. (HSIB maternity team)

## Cephalopelvic disproportion

Cephalopelvic disproportion (CPD) occurs when a baby's head is too large to fit through a mother's pelvis. This may prevent labour progressing. CPD may be suspected antenatally or may be diagnosed when the progress of a mother's labour slows. If a baby's chin is not tucked onto their chest (extended or deflexed head position), this may lead to relative CPD. A different head position may allow the baby's head to move normally through the birth canal. (HSIB maternity team)

## Cephalohaematoma/Sub-periosteal haematoma



1. Scalp
2. Periosteum
3. Haemorrhage
4. Cranium

A cephalohaematoma or sub-periosteal haematoma is an accumulation of blood between the thin covering of the skull bones (periosteum) and the bone itself. It is also known as a cephalhaemaotoma. It may cause a bruise or swelling on one or both sides of a baby's head. It occurs in up to 12% of babies and disappears without treatment over time. It may cause a slight increase in jaundice in the first few days and rarely causes any other problems. It is associated with any type of birth. (HSIB maternity team)

## Cerlage pessary

A cerclage pessary is a soft silicone pessary that may be used to support a mother's cervix during her pregnancy when there is funnelling (the inner part of a cervix starts to open) or shortening of the cervix. (HSIB maternity team)

## Cerebellar vermis

The cerebellar vermis is located within a mother's/baby's cerebellum. The cerebellum is a structure found towards the back of a mother's/baby's brain and is involved in motor reflexes. (HSIB maternity team)



## Cerebral arteries

The cerebral arteries are part of a network of blood vessels that supply blood to a mother's brain. There are three pairs of cerebral arteries:

- Anterior cerebral artery (ACA), supplying blood to the front part of the brain.
- Middle cerebral artery (MCA), supplying blood to the middle part of the brain.
- Posterior cerebral artery (PCA), supplying blood to the back of the brain.

If any of the arteries become blocked or the blood supply is interrupted, the area of the brain the artery supplies can become damaged (infarction), causing a stroke. (HSIB maternity team)

## Cerebral function monitoring

Cerebral function monitoring (CFM) is a minimally invasive tool to detect/confirm the presence of seizure activity in newborn babies. It is performed by attaching electrodes to a baby's head which provide a continuous read out of electrical activity in the brain, generally over a period of hours to days. (HSIB maternity team)

## Cerebral thrombectomy

Cerebral thrombectomy is a type of surgery to remove a blood clot from inside a blood vessel in a mother's brain. (HSIB maternity team)

## Cerebral venous sinus thrombosis

Cerebral venous sinus thrombosis (CVST) is a blood clot in a mother's/baby's brain. It may cause symptoms of stroke, such as one sided weakness, or seizures. (HSIB maternity team)

## Cerebral visual impairment

Cerebral visual impairment (also known as cortical visual impairment or CVI) is a disorder caused by damage to the parts of the brain that process vision. CVI can be caused by an injury to the brain. In most cases, these injuries happen before, during, or shortly after birth.

Further information from: **The Cerebral Visual Impairment Society - resources**

## Cerebroplacental ratio

This is an obstetric ultrasound tool used as a predictor of adverse pregnancy outcome. An abnormal cerebroplacental ratio represents redistribution of cardiac output to the cerebral circulation, meaning more blood going to the brain rather than rest of the body. It has been associated with a baby's wellbeing becoming compromised in labour, increased rates of emergency caesarean birth and poorer outcomes for a baby. (HSIB maternity team)

## Cerebrovascular accident

A cerebrovascular accident (CVA) is the medical term for a stroke. A CVA occurs when the blood flow to part of the brain is stopped either by a blockage or a bleeding blood vessel. (HSIB maternity team)



## **Cervical ectropion**

A cervical ectropion (also known as a cervical erosion), is caused when cells from the inside of a mother's cervical canal are present on the outside surface of the cervix. A cervical ectropion can be caused by hormonal changes, pregnancy and taking the contraceptive pill. They can bleed easily causing bleeding from the vagina. The condition usually resolves without treatment. (HSIB maternity team)

## **Cervical intra-epithelial neoplasia**

Cervical intra-epithelial neoplasia (CIN) is a term used to describes changes which may happen to the cells within a mother's cervix (neck of the womb). If these cells are not treated, they may develop into cancer of the cervix. (HSIB maternity team)

## **Cervical length scan**

(a scan to measure the length a mother's cervix)

## **Cervical polyp**

A cervical polyp is a piece of tissue that may be found on a mother's cervix. A polyp is usually harmless and may cause no symptoms at all. Sometimes a cervical polyp may bleed and cause a mother to have bleeding from her vagina. (HSIB maternity team)

## **Cervical punch biopsy**

A cervical punch biopsy is a procedure which involves taking a small tissue sample, from a mother's cervix, using a circular blade similar to a hole puncher. The sample is examined under a microscope, making it easier to detect any abnormal cells. One or more punch biopsies may be done on different areas of the cervix and can be useful when deciding treatment options.

Further information from: <https://www.nhs.uk/conditions/biopsy/>

## **Cervical ripening balloon for induction of labour**

The procedure involves a catheter (a soft silicone tube) being inserted into the cervix. It has a balloon near the tip which is filled with a sterile saline (saltwater) fluid once in place. The catheter stays in place for 12 to 24 hours, with the balloon putting gentle pressure on the cervix. (HSIB maternity team)

## **Cervical cerclage (stitch)**

A cervical stitch is an operation where a stitch is placed around the cervix (neck of the womb). It is usually done between 12 and 24 weeks to help prevent the cervix from shortening and opening too soon.

Further information from: **RCOG - cervical cerclage**

## **Changed fetal movements**

Most mothers are first aware of their baby moving when they are 18-20 weeks. If the pattern of movements changes, reporting is encouraged. If this occurs between 24-28 weeks, the healthcare professional will perform a full antenatal check-up and listen in to the unborn baby's heartbeat. After 28 weeks, in addition,

a CTG should be carried out. Sometimes, a growth scan may be performed. This may be referred to as reduced fetal movements (RFM).

Further information from: **RCOG - reduced fetal movements** and **Kicks Count - fetal movements**

## CHAPS

CHAPS is a structured communication tool that enables information to be transferred between individuals.

**C** = clinical picture

**H** = history

**A** = assessment

**P** = plan

**S** = sharing of information.

(HSIB maternity team)

## Chemotherapy

Chemotherapy is a cancer treatment where medicine is used to kill cancer cells. There are many different types of chemotherapy, but they all work in a similar way. They stop cancer cells reproducing, which prevents them from growing and spreading in the body. Chemotherapy can be used to cure the cancer or relieve the symptoms if a cure is not possible.

Further information from: **NHS - chemotherapy**

## Chest drain

This is a flexible plastic tube that is inserted through a mother's/baby's chest wall, after the area is numbed. The drain allows air out but not back in, so the lung can re-inflate. The tube is secured and stays in place until the air leak has resolved and the lung re-inflated. (HSIB maternity team)

## Chest rise

(when air or oxygen has reached a baby's lungs their chest wall will be seen to rise)

## Child protection plan

A child protection plan is a record made for a child who is at a significant risk of harm. A child protection plan identifies the risks, potential level of harm and actions needed to keep a child safe. (HSIB maternity team)

## CHIN principles

The CHIN principles may be used as a memory aid to support a mother to breastfeed. The CHIN principles are;

**Close** – A mother holding their baby close to their body

**Head free to tilt back** – to encourage a baby's mouth to open

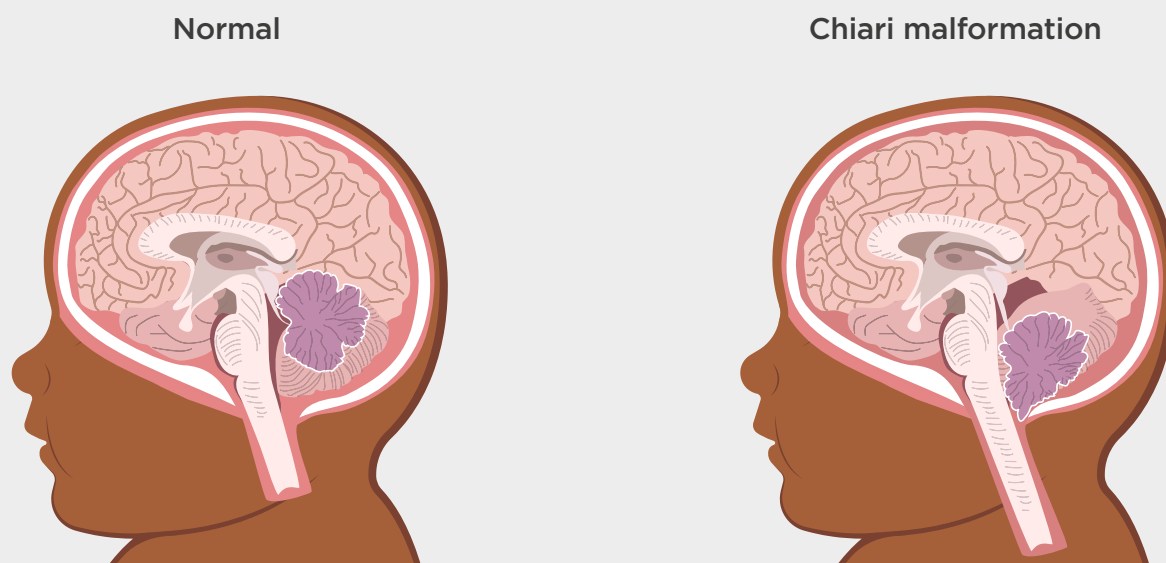
**In line** – keeping a baby's head and body in line

**Nose to nipple** – holding a baby so their nose is level with their mother's nipple

Further information from: **UNICEF - breastfeeding conversations**



## Chiari malformation



A Chiari malformation, previously called an Arnold-Chiari malformation, is where the lower part of the brain pushes down into the spinal canal. This can put pressure on parts of the brain or spinal cord and can obstruct the flow of fluid within the brain and spinal cord.

Further information from: **NHS - Chiari malformation**

## Chlamydia in pregnancy

Chlamydia is one of the most common sexually transmitted infections (STIs) in the United Kingdom (UK) and may be treated with antibiotics.

If chlamydia is not treated during pregnancy, the infection may pass to a baby causing an eye infection (conjunctivitis) or lung infection (pneumonia). Untreated chlamydia during pregnancy may also increase the chance of a baby being born prematurely (before 37 weeks of pregnancy) or with a low birthweight.

Further information from: **NHS - Chlamydia**

## Cholangitis

(an inflammation of the bile duct system)

## Chorangiomas

Chorangiomas, sometimes called chorangiosis is a finding seen on examination of a placenta under a microscope. This developmental abnormality of a placenta is characterised by multiple branching of the smallest blood vessels (terminal villi) within the blood system of a placenta. Chorangiomas can be associated with a reduced oxygen supply in the placenta and mothers with diabetes and pre-eclampsia. The significance of the impact on a baby at birth is uncertain. (HSIB maternity team)

## **Chorioamnionitis**

(inflammation of the placental membranes)

## **Choroid plexus**

(a collection of specialised cells and blood vessels in a mother's/baby's brain that produce cerebrospinal fluid)

## **Choroid plexus cyst**

A choroid plexus cyst is a tiny fluid filled bubble in a baby's brain that may be seen on ultrasound scan. These are usually harmless and disappear without treatment. (HSIB maternity team)

## **Chromosome 17q12 duplication syndrome**

Chromosomes are where a person's genetic material is contained within the cells of the body. Chromosome 17q12 duplication syndrome is a genetic condition which occurs when a small piece (called q12) of chromosome 17 is copied abnormally in each cell. The symptoms of chromosome 17q12 duplication syndrome can vary and may include decreased muscle tone and developmental delay. (HSIB maternity team)

## **Chronic coronary artery atherosclerosis**

Chronic coronary artery atherosclerosis, sometimes called coronary artery disease, may be caused by a build up of fatty deposits (atheroma) on the walls of the arteries (blood vessels) around a mother's heart (coronary arteries). The build-up of atheroma develops gradually over time and can make the arteries narrower, restricting the flow of blood to the heart muscle. (HSIB maternity team)

## **Chronic histiocytic intervillitis**

Chronic histiocytic intervillitis (CHI) is a condition which may affect a placenta during a pregnancy. Whilst the exact cause of CHI is unknown, it is thought that a mother's immune system reacts to the pregnancy, causing blood not to flow through the placenta as expected. This means that a baby may not receive the oxygen and nutrients needed. CHI may cause a baby to be smaller than expected and in severe cases may cause miscarriage or stillbirth. (HSIB maternity team)

## **Chronic hypertension**

Chronic hypertension is high blood pressure that is present at a mother's booking visit, or before 20 weeks, or if a mother is taking antihypertensive medicine when she is referred to maternity services.

Further information from: **NICE - Hypertension in pregnancy**

## **Chronic hypoxia**

(long standing low oxygen level)



## Chorionic plate haemosiderosis

Chorionic plate haemosiderosis is when small iron deposits are seen when examining the placental membranes under a microscope. It may be caused by a previous episode of bleeding. The most common cause is bleeding from the separation of a small area of the placenta or rupture of a vessel in the placenta or membranes. It may also be caused by an illness in a mother such as sickle cell anaemia or thalassaemia. (HSIB maternity team)

## Chorionic villus sampling

Chorionic villus sampling is a test that may be offered during pregnancy to test for genetic or chromosomal conditions. A small sample of cells from the placenta are removed by a needle through a mother's abdomen or cervix and tested. As the test may slightly increase a mother's chance of miscarriage it is only offered when there is an increased chance of a genetic or chromosomal condition.

Further information from: **NHS - CVS**

## Chronic obstructive pulmonary disease

Chronic obstructive pulmonary disease (COPD) is a term used for a group of lung conditions that may cause breathing difficulties in a mother. This includes;

- emphysema – damage to the air sacs in the lungs
- chronic bronchitis – long-term inflammation (swelling) of the airways.

A mother may experience the following symptoms;

- increasing breathlessness
- persistent chesty cough with phlegm
- wheezing

The breathing problems may get gradually worse over time and can limit a mother's everyday activities. In pregnancy a mother's COPD symptoms may suddenly worsen; this is known as a flare-up. (HSIB maternity team)

## Circadian rhythm

A mother's body has many different systems, such as blood pressure, body temperature, hormone levels, and the sleep/wake cycle which fluctuate through a 24 hour cycle. This is called circadian rhythm. (HSIB maternity team)

## Circumvallate placenta

(when the membranes of a mother's placenta fold backward around the edges of the placenta).

## Cirrhosis

Cirrhosis is a condition where there is scarring (fibrosis) of a mother's liver caused by long-term liver damage. The scar tissue prevents the liver working properly.

Further information from: **NHS - cirrhosis**



## **Citrobacter koseri**

*Citrobacter koseri* is a type of bacterium that may cause meningitis and brain abscesses (a swelling containing pus) in a baby. It may be treated with antibiotics. (HSIB maternity team)

## **Classical incision for a caesarean birth**

During a caesarean birth, a surgeon will usually make an incision (cut) from side to side in the lower part of a mother's uterus (womb), just above the bikini line. Sometimes, a classical incision may be needed for a caesarean birth. This involves a surgical incision being made in a mother's uterus from just above the umbilicus to just above the bikini line. A scar from a classical incision is more likely to rupture (tear open) in a future pregnancy. (HSIB maternity team)

## **Classification of urgency of caesarean birth**

### **Category 1**

There is immediate threat to the life of a mother or baby. Birth is performed as quickly as possible, and in most situations within 30 minutes of making the decision.

### **Category 2**

There is compromise of a mother or baby which is not immediately life-threatening. Birth should be as soon as possible and in most situations within 75 minutes of making the decision.

### **Category 3**

There is no compromise of a mother or baby and early birth is needed.

### **Category 4**

The birth can be timed to suit a mother or staff.

Further information from: **NICE - Caesarean birth**

## **Cleft lip and palate**

A cleft is a gap or split in the upper lip and/or the roof of a baby's mouth (palate). It is present from birth. The gap forms when parts of a baby's face do not join together properly during development in the womb. It can be corrected with surgery.

Further information from: **NHS - cleft lip and palate**

## **Clonus**

(an involuntary and rhythmic muscle spasm associated with the neurological changes seen in pre-eclampsia)

## **Clostridium perfringens**

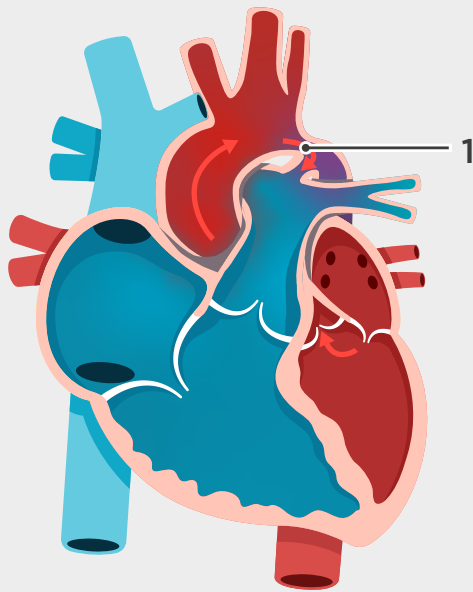
*Clostridium perfringens* is a bacterium that may be present in a mother's genital tract. It may cause an infection in a mother's uterus, which can cause severe illness and sometimes death. Symptoms may range from; endometritis

(inflammation of the lining of the uterus) to gas gangrene (a serious condition where loss of blood supply causes tissues in a mother's body to die) with fulminant (very sudden onset) septicaemia (bloodstream infection). (HSIB maternity team)

### Coagulation blood test

A coagulation blood test may be used to check a mother's/baby's blood is clotting in the usual way. (HSIB maternity team)

### Coarctation of the aorta



1. Narrowing (coarctation) of the aorta

Coarctation of the aorta is a serious but treatable structural abnormality of the heart. It is a narrowing of the main blood vessel which supplies blood to the lower half of the body. Coarctation is not usually identified before birth. Some babies with coarctation become very ill within the first few days or weeks of life, others may only be diagnosed if a heart murmur is heard. Treatment of coarctation is either with surgery to widen the artery, or by balloon dilation to widen the artery. Most children with repaired coarctation of the aorta lead normal active lives after their operation.

Further information from: **British Heart Foundation – Coarctation of the aorta**

### Coeliac disease

Coeliac disease is a condition where a mother's immune system attacks her own tissues when she eats gluten. This damages a mother's gut (small intestine), so she is unable to take in nutrients. Coeliac disease can cause a range of symptoms, including diarrhoea, abdominal pain and bloating.

Further information from: **NHS – Coeliac disease**

### **‘Coffee ground’ aspirate/vomit**

‘Coffee ground’ aspirate or vomit is dark in colour; this is caused by the presence of blood. (HSIB maternity team)

### **Cognitive behavioural therapy**

Cognitive behavioural therapy (CBT) is a talking therapy that can help people to manage their problems by changing the way they think and behave. It is most commonly used to treat anxiety, depression and is also useful for other mental and physical health problems.

Further information from: **NHS - CBT**

### **Cold light test**

The cold light test (sometimes known as transillumination) is used to detect a pneumothorax (air leak) in a baby’s chest. If there is an air leak, the light may appear brighter in that area. This test may be quicker and easier to carry out than an X-ray, so may be useful in an emergency. (HSIB maternity team)

### **Colostrum**

(a mother’s milk produced in late pregnancy and in the first days after birth)

### **Colpocephaly**

Colpocephaly is a condition of a mother’s/baby’s brain which is present from birth. Colpocephaly occurs when a baby’s brain does not develop in the usual way in a mother’s womb. (HSIB maternity team)

### **Combined spinal epidural**

A combined spinal epidural involves giving a mother a fast-acting pain killing injection into her back. A small tube is left in her back through which further pain killing medicine may be given. (HSIB maternity team)

### **Combined test/First trimester screening**

This test, which is available between 10-14 weeks screens is for specific chromosomal conditions. Chromosomes are where a person’s genetic material is contained within the cells of the body. The combined test tests for three conditions where an extra chromosome is found in cells; these are called Down’s (extra chromosome 21), Edwards’ (extra chromosome 18) and Patau’s (extra chromosome 13) syndromes. The combined test uses a sample of a mother’s blood together with the measurement of the fluid at the back of a baby’s neck (known as nuchal translucency). The measurement is taken at the dating ultrasound scan along with other factors including a mother’s age to work out the chance of a baby having Down’s, Edwards’ or Patau’s syndromes. (HSIB maternity team)



## **Compartment syndrome**

Compartment syndrome may occur when a mother experiences bleeding or swelling within an enclosed bundle of muscles – known as a muscle compartment. The condition can be painful and, depending on the cause, serious. Compartment syndrome may be relieved by a surgical procedure called a fasciotomy. A fasciotomy involves an incision into the fascia, (tissue that covers a mother's muscles and organs) to restore any loss of circulation that may have been caused by the increase in pressure.

Further information from: **NHS - Compartment syndrome**

## **Complex regional pain syndrome**

Complex regional pain syndrome (CRPS) is a condition where a mother may experience persistent and severe pain and stiffness and be unable to continue with her usual activities.

Sometimes, when CRPS is caused by an injury, the resulting pain may be more severe and long-lasting than usual.

The pain usually only affects one of a mother's limbs, it may spread to other parts of the body. The skin of the affected body part may become so sensitive that a slight touch, bump or change in temperature can cause intense pain. CRPS usually improves over time. (HSIB maternity team)

## **Compound presentation**

A compound presentation describes when one or more of a baby's limbs enters a mother's pelvis at the same time as, the baby's head or bottom. Risk factors for a compound presentation include prematurity, polyhydramnios and multiple birth. (HSIB maternity team)

## **Computed tomography angiogram**

A computed tomography (CT) angiogram is a test that uses a CT scanner to provide a detailed pictorial assessment of the blood vessels that supply the muscle of the heart. A CT angiogram may show blockages or narrowing of the blood vessels and enable clinicians to plan a mother's management and treatment. (HSIB maternity team)

## **Computed tomography pulmonary angiography**

Computed tomography pulmonary angiography (CTPA) is an imaging process which uses a radiographic contrast agent, which is injected into a vein, to increase the visibility of the blood vessels in the lungs. (HSIB maternity team)

## **Computed tomography angiogram of the circle of Willis**

A computed tomography (CT) angiogram of the circle of Willis is a test that combines the use of a dye, injected into a mother's veins, and a CT scanner to provide a detailed pictorial assessment of the major blood vessels within a mother's brain. (HSIB maternity team)

## Computerised cardiotocography analysis

Cardiotocography (CTG) is an electronic means of recording a baby's heart rate pattern, to assess their wellbeing. Sometimes in the antenatal period (before labour or induction of labour), this can be analysed by a computer. A CTG from a healthy baby would be expected to meet the computerised CTG analysis criteria. The antenatal use of computerised CTG analysis is recommended in national guidance due to its potential to reduce the chance of human error (NHS England, 2019). (HSIB maternity team)

## Computerised tomography

A computerised tomography (CT) scan uses X-rays and a computer to create detailed images of the inside of the body.

Further information available at: **NHS - CT scan**

## Congenital adrenal hypoplasia

Congenital adrenal hypoplasia (CAH) is a condition present from birth affecting a mother's/baby's adrenal glands. In CAH the body is missing an enzyme (chemical substance) that stimulates the adrenal glands to release hormones.

Further information from: **CAH Great Ormond Street Hospital**

## Congenital diaphragmatic hernia

The diaphragm is a thin sheet of muscle that keeps the heart and lungs separate from the abdominal organs. Congenital diaphragmatic hernia (CDH) is a condition, present from birth, where a baby's diaphragm has a hole. A baby's abdominal organs (stomach, bowels and liver) may push up through the hole and take up room in the chest where the heart and lungs would usually be found meaning the lungs cannot grow and develop as expected. (HSIB maternity team)

## Congenital heart block

Congenital heart block (CHB) is a condition where a baby's heart beats more slowly. It is caused by a problem with the electrical pulses that control how the heart beats.

Sometimes no cause to explain the CHB can be found. It can be associated with the presence of lupus antibodies (anti Ro and anti La antibodies) in a mother's blood. The chance of fetal or neonatal CHB is 2-5% when a mother has lupus antibodies. (HSIB maternity team)

## Congenital heart condition

A congenital heart condition is a general term for a range of conditions that affect the way a mother/baby's heart works. Congenital means the condition is present from birth. A congenital heart condition affects up to eight in every 1,000 babies born in the UK.

Further information at: **NHS - congenital heart condition**

## **Congenital myopathies**

Congenital myopathies are rare muscle diseases of a mother's/baby's heart which are present at from birth (congenital). There are many different types of congenital myopathies; most share common features, including lack of muscle tone and weakness. (HSIB maternity team)

## **Congenital pneumonia**

Congenital pneumonia is inflammation of a baby's lungs which is diagnosed at or around the time of birth. The cause of this pneumonia may be an infection which has crossed the placenta during pregnancy, or an infection which develops during labour. (HSIB maternity team)

## **Congenital urinary tract anomalies**

### **Duplex ureter or duplex collecting system**

(a kidney that has two ureter tubes to drain urine)

### **Duplex kidney**

(where an individual has a double kidney on one side of the body, this can be associated with a duplex ureter. (HSIB maternity team)

## **Coning**

Coning describes when a mother's/baby's brain becomes squashed and their brainstem is pushed through (herniates) the hole at the base of their skull. The herniation is caused by conditions that lead to an increase in pressure within the brain and skull: these can include traumatic or hypoxic brain injury, bleeding within the brain or skull, or a brain tumour. This is a neurological problem that almost always results in death. (HSIB maternity team)

## **Conjugated jaundice in a newborn**

Conjugated jaundice may be a more serious type of jaundice than the common newborn jaundice. Conjugated jaundice may be diagnosed with a blood test and can indicate that a baby's liver, gallbladder and/or bile ducts are not working as expected, be a sign of viral infection or other illness. (HSIB maternity team)

## **Conservative measures**

If a CTG is not categorised as normal, the clinical team may recommend care with the aim of improving a baby's environment. This can include changing a mother's position, correcting low blood pressure, or reducing the frequency of contractions. These are referred to as conservative measures (NICE, 2017).

## **Containment holding**

Containment holding, sometimes called comfort holding, is a technique used to help a baby feel secure. A baby may be held with a firm, gentle touch to their head and feet/bottom. (HSIB maternity team)



## **Continuous blood glucose monitoring system**

A continuous blood glucose monitoring system is a device that may be used in the management of a mother who has diabetes. The device is placed under a mother's skin and will measure her blood glucose (sugar) level continuously. This enables a mother to adjust the amount of medication needed to treat her diabetes. (HSIB maternity team)

## **Continuity of carer**

Continuity of carer is an approach within maternity care describing consistency in the midwifery or clinical team providing care for a mother and her baby throughout her pregnancy labour and postnatal period. Continuity of carer has been shown to improve clinical outcomes for both mothers and babies, as well as improving maternal satisfaction with care. (HSIB maternity team)

## **Continuous mandatory ventilation**

Continuous mandatory ventilation is a type of breathing support provided by a breathing machine where all of the breaths given to the mother/baby are provided by the breathing machine. (HSIB maternity team)

## **Continuous positive airway pressure**

Continuous positive airway pressure (CPAP) is a form of breathing support, which applies mild air pressure on a continuous basis to keep the airway open. CPAP is a form of non-invasive ventilation (NIV). (HSIB maternity team)

## **Continuous veno venous hemodiafiltration**

Continuous veno venous hemodiafiltration (CVVHDF) is a treatment used to clean a mother's blood and perform the functions of the kidneys. It may be used in a critical care setting if a mother's kidneys are no longer working. (HSIB maternity team)

## **Controlled cord traction**

Controlled cord traction is a method used to deliver a mother's placenta and membranes following the birth of a baby. It involves pulling gently on the umbilical cord whilst counter pressure is applied to the mother's uterus over the pubic bone. It is performed after the administration of a medicine used to help the placenta separate from the wall of the mother's uterus. (HSIB maternity team)

## **Cordocentesis**

Cordocentesis is a test that uses a needle, guided by ultrasound, to take a small amount of blood from a vessel in a baby's umbilical cord. The blood sample is used for diagnostic testing of a baby at certain times during pregnancy. The test is usually performed from 18 weeks onwards.

Further information from: **NHS - Antenatal screening tests**

## Cord compression

The cord can be compressed during labour. This can affect the blood flow through the cord. This may lead to changes in a baby's heart rate in response to the compression. (HSIB maternity team)

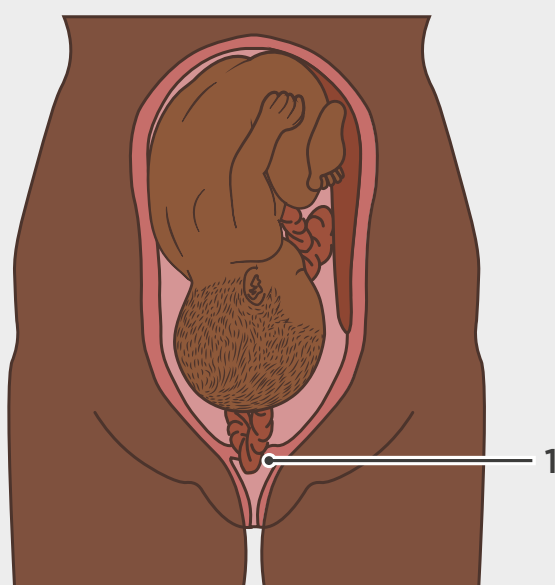
## Cord 'milking'

Cord 'milking' is a technique which may be performed at birth to improve a baby's haemoglobin (iron) levels. A clinician places their thumb and forefinger around a baby's umbilical cord and gently squeezes and pushes the blood through the cord towards the baby's umbilicus. (HSIB maternity team)

## Cord presentation

A cord presentation is when a baby's umbilical cord is between a mother's cervix and the baby before the waters break. After the waters break, when the cervix starts to open, this may lead to a cord prolapse. It is sometimes possible to identify a cord presentation before a prolapse occurs. (HSIB maternity team)

## Cord prolapse



1. Prolapse of the umbilical cord

An umbilical cord prolapse happens when the umbilical cord slips down in front of a baby after the waters have broken. The cord can then come through the open cervix (entrance of the womb). It usually happens during labour; it can occur when the waters break before labour starts. A prolapsed cord is an emergency for a baby. This is because if the umbilical cord prolapses, it can be squeezed by a baby or the womb during a contraction. This can reduce the amount of blood flowing through the cord and so reduce the oxygen supply to a baby. A baby may need to be born immediately to prevent the lack of oxygen causing long-term harm or death of a baby.

Further information from: **RCOG - cord prolapse**

## Cord prolapse maternal positions

When a cord prolapse occurs, a mother may be asked to move into one of the following positions.



In a kneeling position with her face and chest lower than her hips, known as a 'knee-chest' position.



In a side lying position with her upper leg and hips raised up on pillows or cushions, known as a 'side-lying' position.  
(HSIB maternity team)

## Core group meeting

This is where professionals working with a family as part of the child protection plan, meet to review progress and discuss any new safeguarding concerns. (HSIB maternity team)



## Coronary artery disease/Coronary heart disease

Coronary heart disease (CHD) is usually caused by a build-up of fatty deposits (atheroma) on the walls of the arteries around a mother's heart (coronary arteries). The build-up of atheroma makes the arteries narrower, restricting the flow of blood. Further information from: **NHS - Coronary heart disease.**

## Corpus callosum

The corpus callosum is an area in the middle of the brain, which allows the two sides of a mother's/baby's brain to communicate with each other. (HSIB maternity team)

## Corpus luteum cyst

A corpus luteum cyst is a fluid filled structure which may be found in a mother's ovary following ovulation (release of an egg during the menstrual cycle). (HSIB maternity team)

## Corticospinal tract

The corticospinal tract carries neurons (cells that carry information / instructions) from a mother's brain to her lower limbs and trunk to control movement. (HSIB maternity team)

## Coupling

A mother's uterine contractions are said to be 'coupling' when two or more successive contractions occur without a mother's uterus fully relaxing between them. There may be a longer interval until the next cluster of contractions. It is sometimes associated with a baby being in a 'back to back' (occipito posterior) position. (HSIB maternity team)

## Couvelaire uterus

When a significant placental abruption occurs, bleeding can spread into the muscular wall of the uterus. This can lead to the uterus becoming very firm to the touch. This is known as a woody or Couvelaire uterus. (HSIB maternity team)

## Coronavirus

Coronavirus (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, those from Black, Asian or minority ethnic backgrounds and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, or cancer are more likely to develop serious illness. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes.

Further information from: **WHO - COVID-19, NHS - COVID-19, RCOG/RCM - COVID-19 and pregnancy.**

## COVID-19 associated placentitis

COVID-19 associated placentitis is a term used to describe inflammation of a placenta caused by the COVID-19 virus. It may affect how well the placenta functions leading to pregnancy complications. (HSIB maternity team)

## COVID-19 oximetry at home

Oxygen is carried around in red blood cells. A special probe (pulse oximeter) may be placed on a mother's finger or toe to measure how much oxygen her blood is carrying. This is called the oxygen saturation and is a percentage (scored out of 100).

Pulse oximeters are being provided to patients as part of the NHS response to COVID-19 infection. This service supports people at home who have been diagnosed with COVID-19 infection and are at a higher chance of becoming seriously unwell.

Further information from: **NHS England - COVID-19 oximetry at home**

## COVID-19 spike protein antibody test

A COVID-19 spike protein antibody test detects the presence of antibodies to the SARS-CoV-2 spike protein (S) in a mother's blood. The SARS-CoV-2 spike protein (S) will be present after vaccination or COVID-19 infection. (HSIB maternity team)

## COVID-19 vaccinations

The COVID-19 vaccinations currently approved for use in the United Kingdom are;

- **Moderna vaccine** (mRNA vaccine)
- **Oxford/AstraZeneca vaccine** (viral vector vaccine)
- **Pfizer/BioNTech vaccine** (mRNA vaccine)
- **Janssen vaccine** (not currently available) (viral vector vaccine)
- **Novavax vaccine** (not currently available) (recombinant nanoparticle vaccine)

Further information from: **NHS - COVID-19 vaccination**

## Creatinine blood test

A creatinine blood test measures how well a mother's/baby's kidney are filtering waste products out of their blood. (HSIB maternity team)

## Crepitations

Crepitations are a sound that may be heard when listening to breath sounds with a stethoscope. They may be a sign of fluid in a mother's/baby's lung/lungs). (HSIB maternity team)

## Cricoid pressure

Cricoid pressure is a technique that may be used when a breathing tube is inserted into a mother's/baby's windpipe. A clinician may apply pressure with one or two fingers to the cricoid cartilage at the front of a mother's/baby's neck. (HSIB maternity team)



## Criteria for therapeutic cooling

A baby may be considered for treatment with therapeutic cooling if they meet the following three criteria;

### Criteria A

Babies of more than 36 weeks who are less than 6 hours old with at least one of the following:

- Apgar score equal to or less than 5 at 10 minutes of age
- Continued need for resuscitation at 10 minutes of age
- pH of less than 7.00 or base excess less than -16mmol/L in any blood sample taken within 60 minutes of birth.

### Criteria B

Development of encephalopathy evidenced by abnormal neurological examination including seizures, reduced or absent response to stimulation and at least one of the following:

- abnormal reflexes
- poor muscle tone

### Criteria C

Abnormal cerebral function monitoring (CFM) (which measures the electrical activity of the brain). It is recognised that CFM may not be available in all circumstances, and inability to obtain CFM should not prevent or delay treatment if there is evidence from A and B criteria.

Further information from: **British Association of Perinatal Medicine 2020 - Therapeutic hypothermia for neonatal encephalopathy**

## Critical care outreach team

A critical care outreach team includes clinicians with specialist skills in critical care who are able to identify and begin treatment of a mother who is becoming unwell. This may ensure prompt admission to a critical care unit or may result in admission to a critical care unit being unnecessary. (HSIB maternity team)

## Crossmatch

(a blood test to ensure compatibility between donated blood and a mother's blood)

## Crouzon syndrome

Crouzon syndrome is a rare genetic bone disorder present from birth. Crouzon syndrome affects how certain cells in a mother's/baby's body grow. A common feature is the premature closure of the bones of a baby's skull which can prevent normal growth of a baby's head, affecting the shape of the head and face.

Further information from: **GOSH - Crouzon syndrome**

## Crowning

(when the largest part of a baby's head is stretching a mother's vaginal opening)



## Cryoprecipitate

Cryoprecipitate is extracted from thawed frozen blood plasma. It is rich in blood-clotting factors. (HSIB maternity team)

## Curvature of the spine

Types of curvature of the spine include:

**Scoliosis:** a sideways curvature of a mother's/baby's spine

**Kyphosis:** a curvature of a mother's/baby's spine that causes the top of the back to look more rounded.

A combination of these conditions is called kyphoscoliosis.

Further information from: **NHS - Kyphosis** and **NHS - Scoliosis**

## Customised growth chart

One method of monitoring the growth of a baby is to consider relevant features of a mother (such as height, weight, ethnicity and number of previous babies). These features assist in making an individual projected growth chart for that baby.

Two measurements can be plotted on the same chart:

- Measurements taken of a mother's uterus (symphysis-fundal height, SFH)
- Expected weight of a baby (estimated fetal weight, EFW) at the time of an ultrasound scan

Measurements plotted on an individualised graph through a pregnancy, can assist clinicians in detecting any slowing of growth in a baby. (HSIB maternity team)

## Cystic fibrosis

Cystic fibrosis (CF) is a genetic condition affecting more than 10,500 people in the UK. The gene affected by CF controls the movement of salt and water in and out of cells. People with cystic fibrosis experience a build-up of thick sticky mucus in the lungs, digestive system and other organs, causing a wide range of challenging symptoms affecting the entire body.

Further information from: **Cystic Fibrosis Trust**

## Cystogram

A cystogram is an examination of a mother's bladder using dye (sometimes called contrast) and x-rays to show the bladder's appearance and how it fills with urine. (HSIB maternity team)

## Cytomegalovirus

Cytomegalovirus (CMV) is a common viral infection. Congenital CMV occurs when a mother has CMV infection during pregnancy and the infection is passed across the placenta to her developing baby. Some babies with congenital CMV infection show signs of disability at birth, while others are born healthy. (HSIB maternity team)

# D

## D-dimer test

A D-dimer test is a blood test that can be used to investigate the presence of a serious blood clot in the body. D-dimer levels may increase during pregnancy as part of a mother's physiological changes. As a result, the usefulness of a D-dimer test in pregnancy is limited. (HSIB maternity team)

## Dawes-Redman CTG analysis

Cardiotocography (CTG) is an electronic means of recording an unborn baby's heart rate pattern, to assess their wellbeing. During the antenatal period, if a mother has no uterine activity, computer software, known as Dawes-Redman, may be used to analyse the baby's heart rate pattern. A CTG from a healthy baby would be expected to meet the Dawes-Redman criteria. The antenatal use of computerised CTG analysis is recommended in national guidance due to its potential to reduce the risks of human error (NHS England, 2019). (HSIB maternity team)

## Deceleration

(temporary slowing of a baby's heart rate)

## Decelerations

A deceleration is a temporary slowing of a baby's heart rate. Decelerations can be described in multiple ways.

- **Early** – the lowest point of the deceleration is at the same time as the peak of the contraction
- **Variable** – the timing and shape of the deceleration varies
- **Late** – the lowest point of the deceleration comes after the peak of the contraction
- **Baroreceptor** – a deceleration related to changes in a baby's blood pressure
- **Chemoreceptor** – a deceleration related to a build up of carbon dioxide and acid in a baby

(HSIB maternity team)

## Decerebrate posturing

Decerebrate posturing, sometimes called posturing, is when a baby's arms and legs are stretched and rigid. Their head may be arched back. This is an abnormal position, which may happen during a seizure. (HSIB maternity team)

## Decompressive craniotomy

A decompressive craniotomy is an operation where a portion of a mother's skull is removed. As the skull is a rigid structure around the brain, removing part of it reduces pressure within the brain. (HSIB maternity team)

## **Decorticate position/posture (select as required)**

A decorticate position/posture is an abnormal position/posture in which a mother has her arms bent onto her chest, with clenched fists and outstretched legs. It is a sign of severe brain injury. (HSIB maternity team)

## **Deep transverse arrest**

Deep transverse arrest is when a baby's head is unable to move from the occipito transverse position to the occipito anterior position (usual position) before their birth. (HSIB maternity team)

## **Defibrillator**

A defibrillator is a device that sends an electric shock to a mother's heart to try and restore a normal heartbeat. (HSIB maternity team)

## **Delayed cord clamping**

Delayed cord clamping allows the blood from the placenta to continue being transferred to a baby even after they are born. This means that a baby could receive about 30% more blood than they would have without it.

The benefits of this include:

- increased iron levels in a baby even up until they are six months old which helps with growth and both physical and emotional development.
- increased amount of stem cells, which helps with a baby's growth and helps with their immune system.

Further information from: **Tommy's - delayed cord clamping**

## **Delayed villous maturation**

This might be seen when the placenta is examined under a microscope. Part of the microscopic structure of the placenta are called villi. In delayed villous maturation these structures are less well developed than would be expected for the number of weeks of pregnancy. This means the placenta was not able to work in the best way during the pregnancy. This finding may be associated with gestational diabetes. (HSIB maternity team)

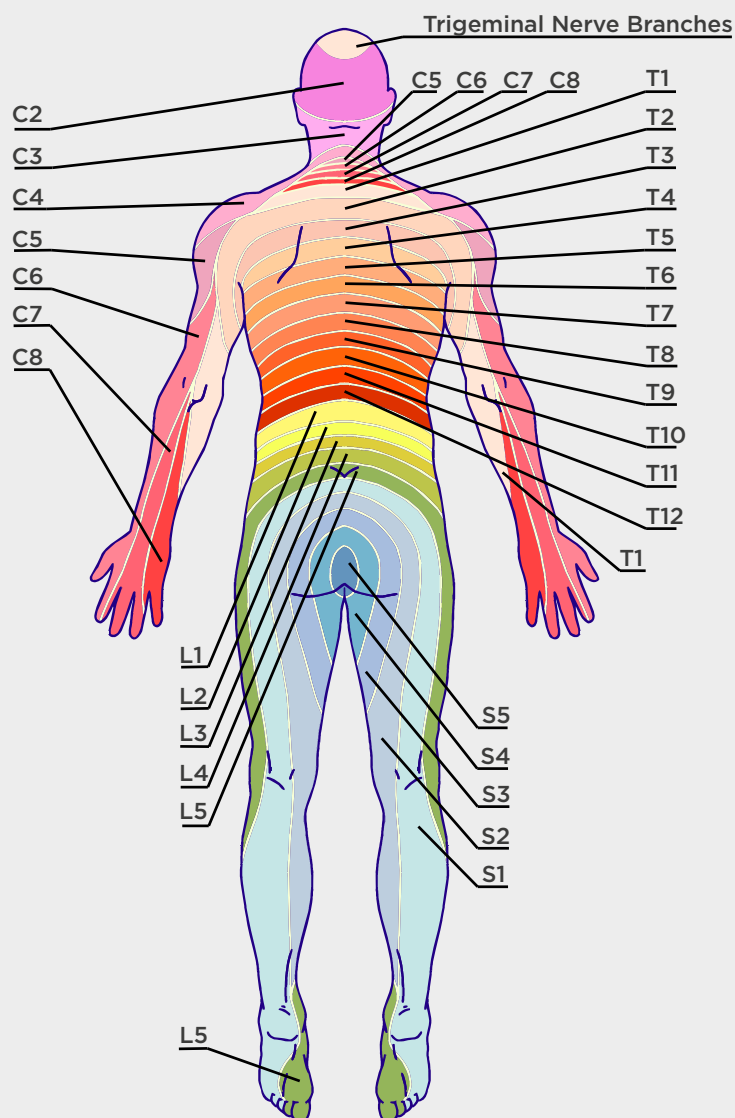
## **Delivery of a baby's posterior arm**

A manoeuvre used, during a shoulder dystocia, to assist the birth of a baby. A clinician uses their hand to identify the baby's posterior arm and, by grasping the wrist, gently withdraws the baby's arm from the mother's vagina in a straight line. This will reduce the width of the baby's shoulders and may assist the baby's birth. (HSIB maternity team)

## **Demyelination**

Demyelination occurs when the myelin (insulating material) covering a mother's nerve cells becomes damaged. This can cause neurological symptoms, such as pins and needles. It may be caused by medical conditions such as multiple sclerosis. (HSIB maternity team)

## Dermatomes



Dermatomes are areas of skin that send signals to a mother's brain by the spinal nerves. Each spinal nerve supplies a particular area of skin. In this body map, each part of a mother's spinal column where the spinal nerve originates is given a unique name and shows the area of skin the nerve supplies. (HSIB maternity team)

### Developmental dysplasia of the hip

Development dysplasia of the hip (DDH) is a condition where the joint of the hip does not form properly in babies. DDH may affect one or both hips. It may be more common in girls, the left hip and first born children.

Further information: **NHS - Developmental dysplasia of the hip**

## Diabetes insipidus

Diabetes insipidus is a condition where a mother's body does not produce enough of the hormone, vasopressin, which regulates the amount of fluid in the body. This may result in a mother feeling thirsty and producing more urine than expected. A rare form of the condition, nephrogenic diabetes insipidus, may occur if a mother's kidneys do not respond to vasopressin in the expected way. Further information from: **NHS - diabetes insipidus**

## Diabetic nephropathy

(damage to the kidneys caused by diabetes)

## Diabetic ketoacidosis

This is a serious condition which can affect a mother with diabetes if her body starts to run out of insulin. When this happens, the level of ketones (a by-product of the breakdown of fat stores) in the body rises, causing the blood to become acidic. Diabetic ketoacidosis can be a life-threatening condition if not treated. Further information from: **NHS - Diabetic ketoacidosis**

## Diabetic retinopathy

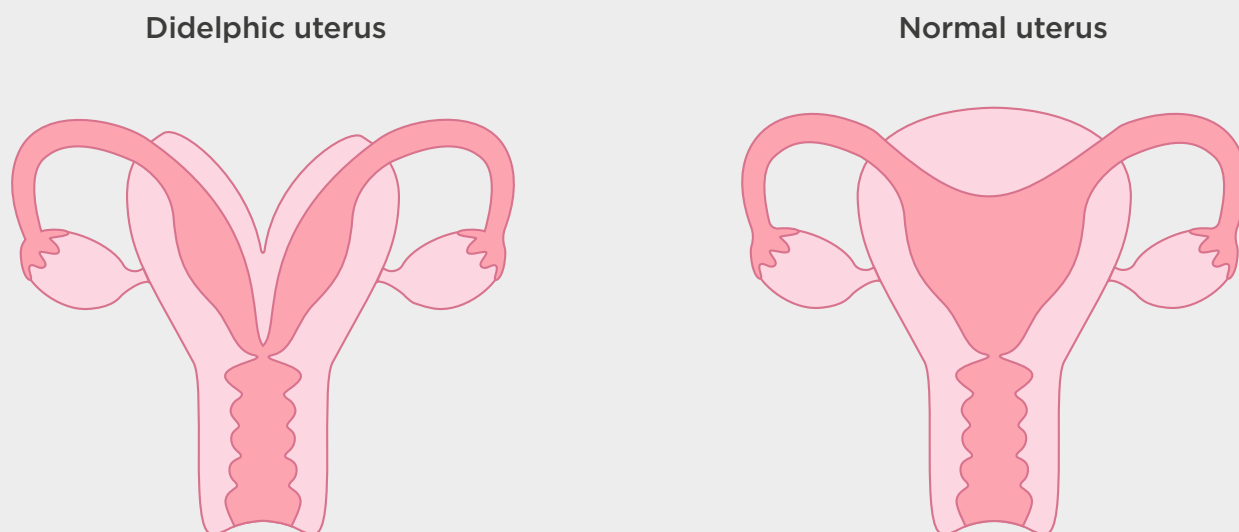
Diabetic retinopathy is a complication of diabetes, caused by high blood sugar levels damaging the back of a mother's eye (retina). Diabetic retinopathy may cause blindness if undiagnosed and untreated.

Further information from: **NHS diabetic retinopathy**

## Diamorphine

Diamorphine is a medicine that may be used to relieve a mother's pain in labour. It may also be used to help a mother relax during the early stages of labour. It is usually given as an injection into her thigh or buttock. It may also be used as part of a patient controlled analgesia (PCA) system during or after labour and birth. The dose used depends on how it is to be given. Diamorphine is less likely to affect a baby's ability to breathe immediately after birth compared to pethidine. (HSIB maternity team)

## Didelphic uterus



The didelphic uterus is split in two, with each side having its own uterus. Generally, the duplication affects uterus and cervix; it can also affect the vulva, bladder, urethra and vagina. A mother with a didelphic uterus may have no extra difficulties with conception. A didelphic uterus is linked to an increased risk of premature birth and fetal growth restriction (where a baby's growth slows or stops during the pregnancy).

Further information from: **Tommy's information about uterine abnormality**

### DiGeorge syndrome

DiGeorge syndrome is a condition, present from birth that is caused by a problem (22q11 deletion) with a mother's/baby's genes. DiGeorge syndrome may cause heart problems and learning difficulties. It may be diagnosed soon after birth with a blood test.

Further information from: **NHS - DiGeorge syndrome**

### Dilated renal pelvis

Dilated renal pelvis is a condition which occurs when there is a widening of the urine collection duct in a baby's kidney. It is sometimes diagnosed in a baby during a routine pregnancy ultrasound scan. Babies born with dilated renal pelvis have an increased risk of urine infections and antibiotics may be prescribed to protect them against this.

The dilated renal pelvis may resolve by itself after birth and a kidney ultrasound scan is usually performed to monitor this. If the urine collection duct widening persists after birth, further investigations may be required. (HSIB maternity team)

## **Dilator rods for induction of labour**

Thin rigid gel rods may be inserted, during a vaginal examination, into a mother's cervix as a mechanical device for the induction of labour. The rods work by absorbing fluid from a mother's cervical tissue, which makes the rods expand, gradually dilating the cervix over a period of up to 24 hours. (HSIB maternity team)

## **Dilutional exchange transfusion**

A dilutional exchange transfusion involves replacing calculated amounts of a baby's blood with equal amounts of saline (sterile salt water) or fresh frozen plasma. Dilutional exchange transfusion may be performed when a baby's haematocrit measurement is high. When the haematocrit measurement is high, the blood becomes thicker and movement of blood through the blood vessels is reduced. This may result in blood clots forming, tissues not getting enough oxygen, and organs in the body not working as they should. Dilutional exchange transfusion may be used to reduce a baby's haematocrit level. (HSIB maternity team)

## **Direct Coombs test**

A direct Coombs test (DCT) is a blood test that may be performed in newborn babies. The DCT helps to check whether there are incompatibilities between a mother's blood group and a baby's blood group. Blood group incompatibilities may predispose a baby to early jaundice that may require treatment. (HSIB maternity team)

## **Direct occipito anterior position**

When the back of a baby's head is against the middle of a mother's abdomen, this is known as direct occipito anterior (DOA). (HSIB maternity team)

## **Direct occipito posterior position**

When the back of a baby's head is against with a mother's back, this is known as direct occipito posterior (DOP). (HSIB maternity team)

## **Directed pushing**

Directed pushing is when a mother is encouraged to push to birth her baby, whether she has an urge to push or not. (HSIB maternity team)

## **Disproportionate growth of a baby**

During an ultrasound scan, a baby's thigh bone, head and abdominal measurements may be taken. In a baby who is growing as expected, these measurements will be proportionate to each other. When there is disproportionate growth of a baby, the abdominal measurement may be proportionally larger than the head measurement. This may increase the chance of a baby having difficulty physically passing through the birth canal. (HSIB maternity team)



## **Disseminated intravascular coagulation**

(DIC - when the blood clots excessively, clotting factors are used up and excessive bleeding follows)

## **Distal villous immaturity**

This might be seen when the placenta is examined under a microscope. Parts of the microscopic structure of the placenta are called villi. In distal villous immaturity these structures are not fully developed. It is in the villi where oxygen and nutrient exchange takes place; distal villous immaturity affects the efficiency of the exchange. This can be associated with diabetes, mothers with a raised body mass index (BMI), excessive or reduced growth of a baby and an increased chance of stillbirth. (HSIB maternity team)

## **Diuretic**

(a medicine that helps a mother's body remove excess fluid).

## **Dolichocephalic head shape**

(a long, narrow head)

## **Do not attempt cardiopulmonary resuscitation**

A do not attempt cardiopulmonary resuscitation (DNACPR) form is a document issued and signed by a doctor, which documents a decision made not to attempt cardiopulmonary resuscitation (CPR) in the event of a cardiac arrest.

When a healthcare team is a certain as it can be that a person is dying as a result of underlying disease or a catastrophic health event, a decision about what care is suitable in the event of a cardiac arrest is indicated with the person (where this is possible) or those close to them.

Further information from: **Resuscitation Council (UK) DNA CPR**

## **Doppler**

Doppler ultrasound is a test performed during an ultrasound examination that measures blood flow in a baby and/or the placenta. It is used in a variety of situations to check on the health of a baby. (HSIB maternity team)

## **Dosette box**

A dosette box is a pill organiser that a mother or a pharmacist may create in either a plastic tray or large blister pack to arrange prescription medicines into individual timed compartments. (HSIB maternity team)

## **Doula**

A doula is a trained companion who is not a healthcare professional. A doula may provide support to a mother and her family during and after pregnancy. (HSIB maternity team)



## Down's syndrome (trisomy 21)

Most people have two copies of each of their 23 chromosomes. In some people there is an extra copy of chromosome 21. This is called Down's syndrome. It occurs by chance and is not caused by anything anyone did before or during pregnancy. People with Down's syndrome have distinctive facial features, a variable level of learning disability and sometimes additional problems with their heart or eyes.

Further information from: **NHS - Down's syndrome**

**There are two definition options for DR (M)C(Q) BRaVADO – you may choose either the short or long option.**

## DR (M)C(Q) BRaVADO

A mnemonic (memory tool) used to describe a CTG. The letters stand for:

- **DR** – Define Risk (an outline of a mother's risk factors)
- **(M)** – Movements (whether a baby is moving during the CTG monitoring. These may be perceived by the mother or registered by the CTG machine. This parameter is not always used)
- **C** – Contractions
- **(Q)** – Quality (of the recording – are there periods of loss of contact?- not always used)
- **BRa** – Baseline Rate (of a baby's heart rate)
- **V** – Variability (of a baby's baseline heart rate)
- **A** – Accelerations (a temporary rise in a baby's heart rate)
- **D** – Decelerations (a temporary drop in a baby's heart rate)
- **O** – Overall (whether the CTG is considered normal or otherwise)

The Dr M C Q BrRaVADO mnemonic is a non-evidenced based descriptive tool and does not support clinicians in their decision making or categorisation of CTGs. (HSIB maternity team)

**Or**

## DR (M)C(Q) BRaVADO

A mnemonic (memory tool) used to describe a CTG. It is a non-evidenced based descriptive tool and does not support clinicians in decision making. (HSIB maternity team)

## Drugs and lactation database

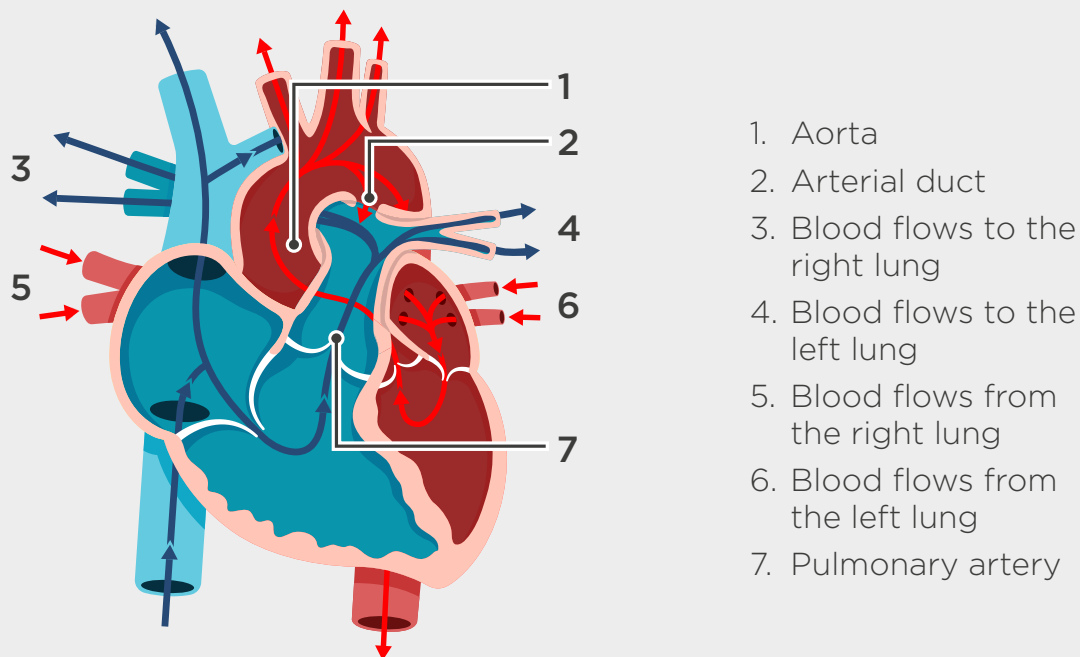
The National Institutes of Health (NIH) drugs and lactation database (sometimes called LactMed) is an online resource containing information on medicines and other chemicals. It includes information on the levels of each substance and the possible adverse effects to a breastfeeding mother and her baby. (HSIB maternity team)



## Drugs used to support the circulation

A number of drugs are used in critical care settings to support cardiac function and blood pressure. These include adrenaline, noradrenaline, dopamine and dobutamine. They are usually given into a vein and can be given as single or repeated doses, or via a continuous infusion. (HSIB maternity team)

## Ductus arteriosus (arterial duct)



The ductus arteriosus (sometimes known as the arterial duct) is a short blood vessel that connects the two main arteries of a baby's heart. Before a baby is born the arterial duct allows blood to largely bypass the lungs. After a baby is born, the arterial duct is no longer required as the lungs fill with air when a baby breathes and blood flows through the lungs. The arterial duct usually closes by itself within the first week of life. If the baby's cardiac function is compromised by a condition present from birth, the closure of the arterial duct can lead to a deterioration in the baby's health. (HSIB maternity team)

## Dumping syndrome

Dumping syndrome describes symptoms a mother may experience following a gastrectomy (removal of part or all of a mother's stomach). Symptoms include;

- Feeling faint
- Sweating more than usual
- Palpitations
- Bloating of the abdomen
- Rumbling noises from the abdomen
- Nausea
- Indigestion
- Diarrhoea

Dumping syndrome is caused when foods high in sugar or starch move quickly into mother's small intestine after eating.

Further information from: **NHS - dumping syndrome**

### **Dural puncture**

A mother's brain and spinal cord are surrounded by a fluid which is kept in place by a membrane called the dura. The dura may be punctured accidentally when an epidural is being put in or it may be punctured as part of the procedure for inserting a spinal anaesthetic. The fluid around the mother's brain and spinal cord may then leak from the puncture. As the fluid leaks out, it causes a drop in pressure in the fluid around the brain resulting in a headache. This headache can be severe.

Further information from: **Obstetric Anaesthetists Association - epidural headache**

### **Duodenal atresia**

Duodenal atresia means the duodenum, which is the first part of the small intestine just beyond a baby's stomach, is closed off rather than being an open tube. This stops food and fluid passing from the stomach into the intestines. This can sometimes be discovered during pregnancy and may be seen on antenatal ultrasound scanning. Some babies with this condition are born prematurely. A baby may appear well at birth. When they start to feed, they may vomit which may be green in colour. An x-ray may confirm this diagnosis. (HSIB maternity team)

### **Dysmorphic features**

When a baby has unusually shaped body parts, such as low set ears or a small jaw, these are described as dysmorphic features. They may be associated with chromosomal abnormalities. (HSIB maternity team)

# E

## Echocardiogram

An echocardiogram (or echo) can help diagnose and monitor certain heart conditions by checking the structure of the heart and surrounding blood vessels, analysing how blood flows through the vessels, and assessing the pumping chambers of the heart.

Further information from: **NHS - Echocardiogram**

## Echogenic bowel

Echogenic bowel may be seen during a mother's ultrasound scan when part of a baby's bowel appears brighter (whiter) than usual.

This may be an incidental finding and may not be harmful to a baby. It may be caused by a baby having fluid containing blood in their bowel. The blood may come following a baby swallowing amniotic fluid (waters from around a baby) containing some blood.

In rare circumstances a baby with echogenic bowel may have other conditions such as cystic fibrosis (an inherited condition) or an infection with cytomegalovirus (a virus which can cause problems for a baby).

If echogenic bowel is seen on ultrasound scan, a mother will be offered testing for cystic fibrosis and cytomegalovirus infection, and regular ultrasound scans to review the growth of her baby. (HSIB maternity team)

## Eclampsia

Eclampsia describes one or more seizures occurring during or immediately after pregnancy as a complication of pre-eclampsia. Before they suffer an eclamptic seizure, most mothers have signs of pre-eclampsia (high blood pressure and/or protein in the urine). Eclampsia is rare, affecting about 400 mothers per year in the UK. Most mothers make a full recovery from eclampsia, one in every 50 die and some are left with a permanent disability. Unborn babies whose mothers are affected by eclampsia are at risk of problems caused by a lack of oxygen in the placenta at the time of the seizure. About one in every 14 of these babies die.

Further information from: **Action on Pre-Eclampsia**

## ECMO

ECMO is a technique which can be used in adults or in babies with severe or life-threatening heart or lung problems. ECMO stands for extracorporeal membrane oxygenation. The ECMO machine is very similar to a heart-lung machine. A tube (cannula) is used to take blood from a mother/baby to the ECMO machine which puts oxygen into the blood and removes carbon dioxide outside the body (extracorporeally) before returning the blood to the mother/baby. A drug is given to stop the blood from clotting. (HSIB maternity team)

## Ectopic beat

An ectopic heartbeat is when a mother/baby experiences a heart beat that is out of time with their usual heart rhythm. Ectopic heartbeats are not usually a cause for concern, the reason they may occur is not always known. (HSIB maternity team)

## Ectopic pregnancy

An ectopic pregnancy occurs when a fertilised egg implants itself outside of a mother's womb, usually in a fallopian tube. Symptoms of an ectopic pregnancy may include;

- A missed period and other usual signs of pregnancy
- Abdominal pain
- Bleeding from the vagina
- Shoulder tip pain
- Discomfort when passing urine or opening the bowels.

Some mothers may not experience symptoms. If not diagnosed, an ectopic pregnancy may cause a mother's fallopian tube to rupture (burst open). This may be a life threatening condition and requires urgent assessment and surgery.

Further information from: **NHS - ectopic pregnancy**

## Edwards' syndrome (trisomy 18)

Most people have two copies of each of their 23 chromosomes. In some people there is an extra copy of chromosome 18. This is called Edwards' syndrome. It occurs by chance and is not caused by anything anyone did before or during pregnancy. It is a rare and serious condition. Most babies with Edwards' syndrome will die before or shortly after birth.

Further information from: **NHS - Edwards' syndrome**

## Ehlers Danlos syndrome

A group of inherited conditions that affect the connective tissues of the body. Symptoms may include an increased range of movement, stretchy or fragile skin.

Further information from: **NHS - Ehlers-Danlos syndrome**

## Ejection fraction

(a measure of the volume of blood pumped out of a mother's/baby's heart with each beat)

## Electroencephalogram

An electroencephalogram is a recording of electrical activity of the brain.

Further information from: **NHS - EEG**

## Electrocardiogram

An electrocardiogram is a simple test that can be used to check the heart's rhythm and electrical activity. Sensors attached to the skin are used to detect the electrical signals produced by the heart each time it beats.

Further information from: **NHS - ECG**

## Electrolytes

(salts and minerals in the blood)

## Electronic cigarettes

Electronic cigarettes, sometimes known as ‘vapes’, are devices that allow a mother to inhale nicotine in a vapour (a heated solution) instead of smoke. The use of electronic cigarettes may help a mother to stop smoking. Vaping is substantially less harmful than smoking, for a mother and baby; the risks and long term effects of vaping are not yet known.

Further information from: **NHS - electronic cigarettes**

## Embolisation

Embolisation is a treatment used to slow down blood flow through a mother’s blood vessel. Medicines are placed into the blood vessel to form a clot which temporarily blocks the blood vessel. The procedure is done by a specialist doctor (an interventional radiologist) using a high-definition x-ray to accurately identify the blood vessel. (HSIB maternity team)

## End diastolic flow

End diastolic flow (EDF) describes how blood flows through a baby’s umbilical cord. It is measured during an ultrasound scan and may be described as positive (present), absent or reversed. Absent or reversed EDF may be associated with poor outcomes for babies. (HSIB maternity team)

## End tidal carbon dioxide monitoring

End tidal carbon dioxide (ETCO<sub>2</sub>) monitoring is a technique to measure carbon dioxide levels in expired air. It is used to confirm the correct placement of an airway device inserted for a patient. It also provides information on the effectiveness of a patient’s breathing or ventilation. (HSIB maternity team)

## Endometriosis

Endometriosis is a condition where tissue similar to the lining of the womb starts to grow in other places, such as the ovaries and fallopian tubes.

Further information from: **NHS - endometriosis**

## Endotracheal tube

An endotracheal tube (ETT) is a soft plastic tube that may be placed through a mother’s mouth or nose and into the windpipe (trachea). The ETT is then attached to a ventilator to support a mother’s/baby’s breathing. (HSIB maternity team)

## Enema

An enema is liquid inserted into a mother’s/baby’s rectum through their bottom, often used to empty the bowel. (HSIB maternity team)



## Engagement

Engagement describes the process of a baby's head, or bottom, moving down into a mother's pelvis. This may happen in the latter stages of pregnancy or during labour. (HSIB maternity team)

## English indices of deprivation

English indices of deprivation are measures of living conditions across England which are produced by the Ministry of Housing, Communities and Local Government.

There are seven domains which are taken into account when calculating the indices of deprivation. These are:

- income deprivation
- employment deprivation
- education, skills and training deprivation
- health deprivation and disability
- crime
- barriers to housing and services
- living environment deprivation.

The indices of deprivation data are published on the government website.

Further information from: **GOV.UK - English indices of deprivation 2019**

## Enoxaparin sodium

(a medication given to prevent blood clots)

## Enteral feeding

Enteral feeding describes a method of administering nutrition to a mother through a tube which is placed through the nose into their stomach or small intestine. (HSIB maternity team)

## Enterococcus

Enterococci bacteria are frequently found in the bowel of healthy mothers and babies. There are many different species of enterococci; only a few have the potential to cause infections in a mother/baby. They can cause a range of illnesses including urinary tract infections, bacteraemia (blood stream infections) and wound infections.

Further information from: **Public Health England**

## Enteroviruses

Enteroviruses are a group of common viruses, that may cause a number of infectious illnesses, and are spread from person to person through close contact. Enteroviruses usually cause no illness at all and, if symptoms do occur, they are usually mild. Certain types of enterovirus are associated with more severe illness. If an enterovirus spreads to a mother's/baby's central nervous system, they can cause serious illnesses like viral meningitis (infection of the lining of the brain and spinal cord) or viral encephalitis (infection of the brain). (HSIB maternity team)



## Epidural

An epidural is a method of pain relief which is inserted by an anaesthetist. An anaesthetist is a doctor who is specially trained to provide pain relief and general anaesthetics. The anaesthetist inserts a needle into the lower part of the back and uses it to place an epidural catheter (a very thin tube) near the nerves in the spine. The epidural catheter is left in place when the needle is taken out so a mother can be given painkillers during labour. The painkillers may be a local anaesthetic to numb the nerves, small doses of opioids (strong painkiller), or a mixture of both.

An epidural can usually be topped up to provide pain relief for the duration of labour or for any intervention that might be recommended such as an instrumental birth or a caesarean birth.

Further information from: **Obstetric Anaesthetists Association - pain relief for labour and birth**

## Epidural blood patch

If a mother has a dural puncture, one treatment that maybe offered is called an epidural blood patch. During this procedure, an epidural is performed; at the same time, a small amount of the mother's blood is taken from a vein in her arm. This blood is injected into the epidural space.

Further information from: **Obstetric Anaesthetists Association - epidural headache**

## Epigastric pain

Epigastric pain is pain or discomfort in the central part of the upper abdomen. (HSIB maternity team)

## Epilepsy

Epilepsy is a condition affecting a mother's brain. It is caused by bursts of electrical brain activity (seizures). It may cause a range of symptoms, some of which may temporarily affect a mother's ability to control her body's movements. Epilepsy may start at any age and may be treated with medicine to control seizures.

Further information from: **NHS - Epilepsy**

## Epileptic encephalopathy

Epileptic encephalopathy is a condition characterised by severe seizures, progressive loss of brain function and delays in development. There are several different recognised types. (HSIB maternity team)

## Episiotomy

A cut made at the end of labour to widen the vaginal opening.

Further information from: **NHS - episiotomy**

## **Erb's palsy**

Erb's Palsy is a type of brachial plexus paralysis, a condition which is mainly due to birth trauma. It can affect one or all of the five primary nerves that supply the movement and feeling to an arm. The paralysis can be partial or complete, the damage to each nerve can range from bruising to tearing. Most babies recover on their own, a few may require specialist intervention. (HSIB maternity team)

## **Escherichia coli**

Escherichia coli (E. coli) is a type of bacteria common in human intestines. There are several different types of E. coli and while most are harmless, some can cause serious infection such as urinary tract infection or food poisoning. Mothers are more susceptible to urinary tract infection by E. coli as the urinary tract is close to the anus. (HSIB maternity team)

## **Euglycaemic diabetic ketoacidosis**

Euglycaemic diabetic ketoacidosis is a serious condition which can affect a mother with diabetes. When this happens, her blood sugar levels remain in the expected range and the level of ketones (a by-product of the breakdown of fat stores) in the body rises, causing the blood to become acidic. Euglycaemic diabetic ketoacidosis can be a life-threatening condition if not treated.

For further information: **NHS - Diabetic ketoacidosis**

## **Evacuation of retained products of conception**

Any pregnancy tissue that remains in a mother's uterus after termination of pregnancy/miscarriage/vaginal or caesarean birth are called retained products of conception. Sometimes an operation may be needed to remove pregnancy tissue. This is called an evacuation of retained products of conception. (HSIB maternity team)

## **Exchange transfusion**

An exchange transfusion is a procedure used to treat severe jaundice in a baby. A thin tube (catheter) is placed in a blood vessel and the baby's blood is removed and replaced with blood from a matching donor.

Further information from: **NHS - exchange transfusion**

## **Expectant management (Induction of labour)**

Expectant management (sometimes called watch and wait) is an approach which may be used towards the end of a mother's pregnancy. Expectant management involves no medical or surgical interventions aimed to start labour and a mother waits for labour to begin spontaneously. (HSIB maternity team)

## **Expected ranges of maternal observations**

**(Please check the local meows chart/guidance for the normal ranges and amend the ranges accordingly.)**

During pregnancy, labour and in the postnatal period a mother's temperature, heart rate, blood pressure, respiratory (breathing) rate and oxygen saturation in the blood may be measured. Most mothers will have observations in the following ranges.

- Temperature 36C to 37.3C
- Heart rate 60-100 beats per minute (bpm)
- Blood pressure systolic (top number) 100-150mmHg, diastolic (bottom number) 50-90mmHg
- Respiratory rate 10-21 respirations per minute (rpm)
- Oxygen saturation 91%-100%

## **External cardiac pacing**

Cardiac pacing is the delivery of a small electrical current to a mother's heart to stimulate a contraction of the heart muscle. External pacing can be established quickly and easily during cardiopulmonary resuscitation (CPR). It gives time for the spontaneous recovery of electrical signals within a mother's heart or for more definitive treatment to be started. (HSIB maternity team)

## **External cephalic version**

External cephalic version is usually performed in a hospital by an obstetrician or specially trained midwife. It involves applying gentle firm pressure on a mother's abdomen to help a baby turn in the uterus to lie head-first.

Further information from: **RCOG - external cephalic version**

## **Extracorporeal carbon dioxide removal**

When a mother's lungs do not work effectively, she may develop high levels of carbon dioxide in her blood. Extracorporeal carbon dioxide removal involves blood being taken from a mother's circulation and passed through a machine which filters out the carbon dioxide. The blood is then returned to her circulation. (HSIB maternity team)

## **Extralobar subdiaphragmatic sequestration**

A condition where a small amount of lung tissue is separated from the rest of a mother's/baby's lungs and located beneath the diaphragm. It does not fill with air or contribute to breathing. (HSIB maternity team)

## **Extubation**

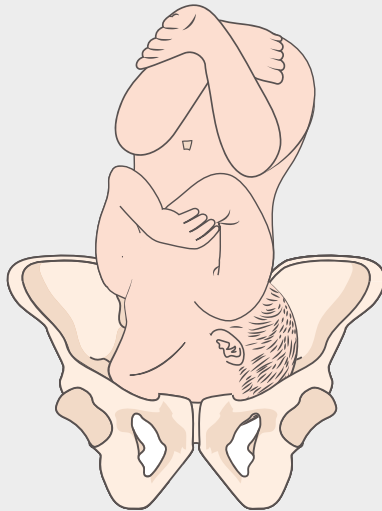
Extubation is when the breathing tube (which is required for mechanical ventilation) is removed from a mother's/baby's windpipe. (HSIB maternity team)



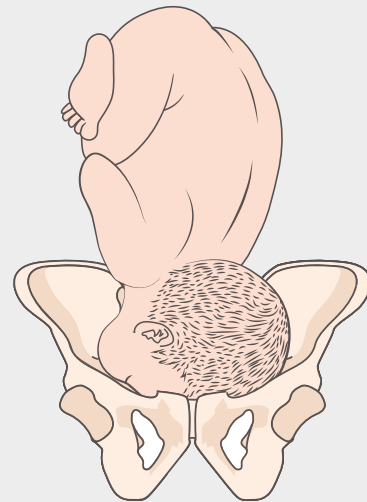
# F

## Face presentation

**Mento (chin) anterior**



**Mento (chin) posterior**



When a baby presenting head-first extends their neck as if to look downwards, they may enter a mother's pelvis face first. A baby who is lying with their back to their mother's back (mento (chin) anterior (front)) may be born vaginally. A baby who is lying with their back to their mother's front (mento posterior) will not be able to be born vaginally unless they change their head position. (HSIB maternity team)

## Facial congestion

Facial congestion (swelling of a baby's face) may occur as a normal feature following labour or birth. Facial congestion usually resolves within a few days of birth. (HSIB maternity team)

## Factor V Leiden

The Factor V Leiden mutation is a common type of thrombophilia (clotting tendency) caused by a faulty gene (mutation). It slightly increases the risk of developing a thrombosis (blood clot) in pregnancy. (HSIB maternity team)

## Family nurse partnership

The family nurse partnership (FNP) is an intensive support and development programme for some young parents and parents-to-be. Parents receive support during and after pregnancy, and through a baby's early years. (HSIB maternity team)

## **FAST test**

A stroke is a serious life-threatening condition that happens when the blood supply to part of the brain is cut off. The main symptoms of a stroke may be identified using a FAST (face, arms, speech, time) test.

- **Face** – A mother's face may have dropped on one side and they may not be able to smile. This may or may not involve the mouth or eye.
- **Arms** – A mother may not be able to lift her arms, or the arm may be numb or weaker.
- **Speech** – A mother's speech may be slurred, or she may be unable to speak or understand what another person is saying.
- **Time** – If any signs of stroke are present, then telephone '999' and request help.

Further information from: **NHS - FAST test**

## **Fasting glucose test**

A fasting glucose test is a blood test which may help to diagnose diabetes in a mother. A mother is usually advised not to eat or drink anything except water for 8-10 hours before having a fasting glucose test. This time gives a mother's body time to fast. (HSIB maternity team)

## **Female genital mutilation**

Female genital mutilation (FGM) is a procedure where the female genitals are deliberately cut, injured or changed, and there is no medical reason for this to be done.

Further information from: **NHS - FGM**

## **Femoral artery puncture**

Femoral artery puncture is a technique used to take blood from a blood vessel in a mother's groin during an emergency when blood cannot be obtained from another area. (HSIB maternity team)

## **Femoral pulse**

A femoral pulse may be felt in a baby's groin area by applying gentle finger pressure to the femoral artery. A weak or absent femoral pulse in a baby may suggest the presence of a congenital heart defect. (HSIB maternity team)

## **Ferritin**

(a protein found in a mother's/baby's blood which stores iron)

## **Fetal akinesia deformation sequence**

Fetal akinesia deformation sequence (FADS) is a condition characterised by reduced fetal movements as well as growth restriction, multiple joint contractures stiffening (arthrogryposis), facial anomalies, underdevelopment of the lungs (pulmonary hypoplasia) and other developmental abnormalities. It is generally accepted that this condition is not a true diagnosis or a specific syndrome, but rather a description of a group of abnormalities resulting from the reduced fetal movements. FADS may sometimes be caused by a faulty gene.



FADS is a rare syndrome, with approximately 100 cases reported worldwide. Of these babies, approximately 30% were stillborn, with most of the remaining babies dying as a result of their pulmonary hypoplasia. (HSIB maternity team)

### **Fetal alcohol syndrome**

A baby exposed to alcohol in the womb may have changes that can include:

- A head that is smaller than average.
- Poor growth during pregnancy and childhood
- Distinctive facial features – such as small eyes, a thin upper lip, and a smooth area between the nose and upper lip.
- Movement, co-ordination, behavioural or learning problems.
- Problems with the liver, kidneys, heart or other organs.
- Hearing and vision problems

Further information from: **NHS - fetal alcohol syndrome**

### **Fetal blood sampling**

Fetal blood sampling (FBS) is a test when there is concern about a baby's wellbeing during labour. A pinprick of blood may be taken from a baby's scalp. The result of the FBS may help the team to plan care. (HSIB maternity team)

### **Fetal echocardiogram (echo)**

A fetal echocardiogram is an ultrasound scan which focuses specifically on a baby's heart and major blood vessels. (HSIB maternity team)

### **Fetal fibronectin test**

The fetal fibronectin test may help to predict preterm birth in a mother with symptoms of premature labour (HSIB maternity team)

### **Fetal head compression**

Fetal head compression may occur when a baby's head is squeezed during a contraction. The compression may stimulate a nerve in a baby's brain causing a deceleration of their heart rate. This is an expected physiological response during a mother's labour, which does not usually require intervention. (HSIB maternity team)

### **Fetal head position**

The position of a baby's head in the birth canal is described based on the location of the back of a baby's head (the occiput bone), and its relationship to landmarks within the pelvis. (HSIB maternity team)

### **Fetal heart rate baseline**

(the average rate of a baby's heartbeat over a period of time)

### **Fetal heart rate cycling**

(the alternation of sleep and wake patterns seen in a baby's heart rate)

### **Fetal heart rate variability**

Fetal heart rate variability is the fluctuation in a baby's heart rate from one beat to the next. Normal fetal heart rate variability is between 5 and 25 bpm. A baby with variability in this range is considered to be healthy. (HSIB maternity team)

### **Fetal neonatal alloimmune thrombocytopenia**

A baby's blood contains platelets which are specialised blood components necessary for blood clotting. Platelets are made up of genetic material from a baby's mother and father. Fetal neonatal alloimmune thrombocytopenia is a condition where a baby's platelets, containing the father's genetic material may cross into a mother's bloodstream. This may cause a mother to make antibodies which cross into a baby's bloodstream and destroy the platelets. This may cause a baby's platelet count to become dangerously low and increase the risk of problems with bleeding, particularly into the brain. (HSIB maternity team)

### **Fetal scalp electrode**

Fetal scalp electrode (FSE) is a small clip placed on the unborn baby's head or bottom, if external monitoring produces an unreadable CTG. It is applied during a vaginal examination. (HSIB maternity team)

### **Fetal scalp stimulation**

Fetal scalp stimulation (touching the unborn baby's head during a vaginal examination) may lead to a rise in the unborn baby's heart rate. This is indicative of health.

Further information from: **NICE - care in labour (includes fetal scalp stimulation)**

### **Fetal Pillow®**

A disposable soft, silicone balloon device which can be inserted into the upper part of a mother's vagina immediately before a caesarean birth. When filled with water it is designed to lift a baby's head out of the mother's pelvis in order to make caesarean birth easier. It is particularly designed for use when a baby's head is low in the birth canal at the time of the caesarean birth. (HSIB maternity team)

### **Fetal thrombotic vasculopathy**

FTV includes fetal vascular malperfusion (abnormalities in the blood vessels on the fetal side of the placental structure) and is associated with cord abnormalities such as hypercoiling (more than the expected numbers of turns within a length of cord), stricture (narrowing of the cord), cord entanglement and a long cord. FTV is associated with poor perinatal outcomes. It can only be diagnosed on examination of a placenta under the microscope and cannot be detected during pregnancy. (HSIB maternity team).

### **Fetal vascular malformation**

Unusually structured blood vessels in the placenta indicating reduced or absent blood flow, most commonly caused by umbilical cord obstruction. (HSIB maternity team)





### **Feto-maternal haemorrhage (Use for IPSB)**

In the placenta a mother's and a baby's circulations are separated by a thin membrane through which oxygen, nutrients and waste products are exchanged. In a healthy pregnancy there is minimal loss of blood cells from a baby's circulation into a mother's circulation. If there is a complication of pregnancy, affecting the placenta, larger volumes of a baby's blood may enter a mother's circulation. This is called a feto-maternal haemorrhage. If the volume of feto-maternal haemorrhage is large a baby's wellbeing may be compromised and they may die before birth. (HSIB maternity team)

### **Feto-maternal haemorrhage (Use for HIE babies)**

In the placenta a mother's and a baby's circulations are separated by a thin membrane through which oxygen, nutrients and waste products are exchanged. In a healthy pregnancy there is minimal loss of blood cells from a baby's circulation into a mother's circulation. If there is a complication of pregnancy, affecting the placenta, larger volumes of a baby's blood may enter a mother's circulation. This is called a feto-maternal haemorrhage. If the volume of feto-maternal haemorrhage is large a baby's wellbeing may be compromised and they may need urgent birth. (HSIB maternity team)

### **Feto-maternal haemorrhage (Use for NND)**

In the placenta a mother's and a baby's circulations are separated by a thin membrane through which oxygen, nutrients and waste products are exchanged. In a healthy pregnancy there is minimal loss of blood cells from a baby's circulation into a mother's circulation. If there is a complication of pregnancy, affecting the placenta, larger volumes of a baby's blood may enter a mother's circulation. This is called a feto-maternal haemorrhage. If the volume of feto-maternal haemorrhage is large a baby's wellbeing may be compromised and they may die in the newborn period. (HSIB maternity team)

### **Feto-placental ratio**

If the placenta is proportionally smaller than would be expected from the weight of a baby the ratio between the fetus and the placenta is said to be raised. A feto-placental ratio significantly raised [above the 97th centile] is associated with a higher risk of stillbirth or a baby requiring additional neonatal care. (HSIB maternity team)

### **Fibrinogen**

Fibrinogen is a protein found in a mother's/baby's blood. When tissue damage occurs that results in bleeding, fibrinogen is converted to fibrin. Fibrin provides the scaffolding to help clots to form, in the blood, at the site of the injury. (HSIB maternity team)

### **Fibrinogen concentrate**

(a blood clotting factor)



### **Fibreoptic nasal endoscopy**

Fibreoptic nasal endoscopy is a procedure to look at a mother's nasal and sinus passages. It is done with an endoscope. This is a thin, flexible tube with a small camera and a light. (HSIB maternity team)

### **Fibroid degeneration**

This is a painful condition that occurs when a fibroid grows rapidly and the central portion of the fibroid dies (degenerates) due to insufficient blood supply. This rarely causes problems for the unborn baby and is generally treated with painkillers alone for the limited time that a mother experiences pain. (HSIB maternity team)

### **Fibromyalgia**

Fibromyalgia is a long term condition that may cause pain all over a mother's body. Mothers with fibromyalgia can also experience increased sensitivity to pain, fatigue (extreme tiredness), muscle stiffness, difficulty with sleeping, memory and concentration. There is currently no cure for this condition. Treatment includes medication, talking therapy and exercise.

Further information from: **NHS - fibromyalgia**

### **Fibrosed adhesion**

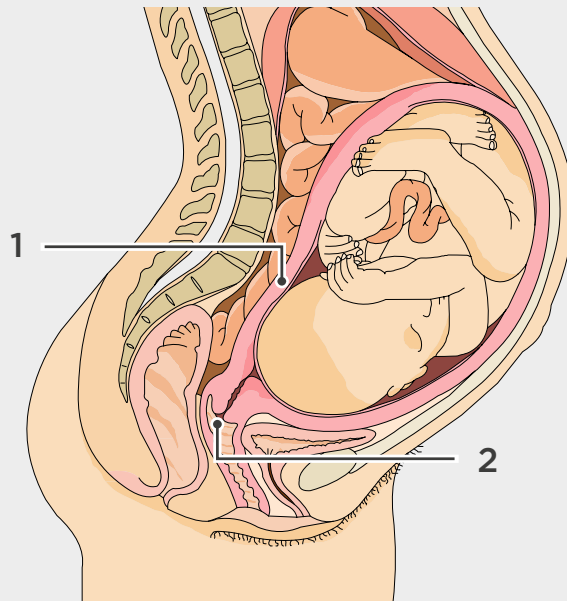
Adhesions are bands of scar tissue which may form between tissues and organs in a mother's body following surgery. They can become hardened or fibrosed. They may make a caesarean birth more complex and lengthier. (HSIB maternity team)

### **FIGO**

(a model used for CTG categorisation)

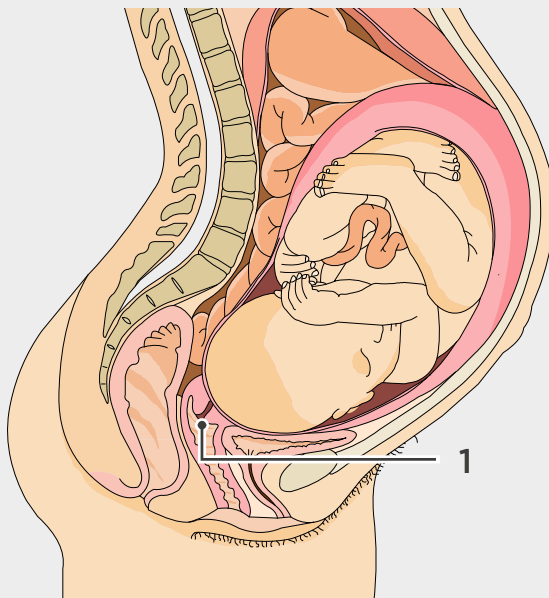
## First stage of labour

The first stage of labour can be divided into two parts:



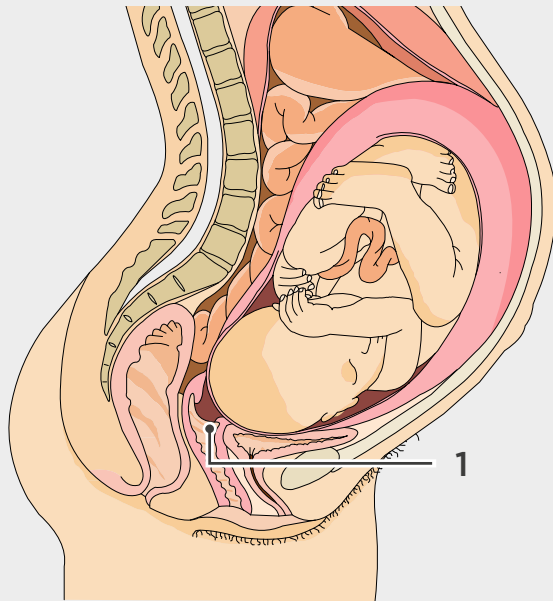
- 1. Uterus
- 2. Cervix

1. The first part is referred to as the latent phase, when there are painful contractions and there is some cervical change, including thinning out and opening of the cervix.



- 1. 1cm dilated

2. The second part is referred to as the established first stage of labour, when there are regular painful contractions and there is ongoing opening of the fully thinned out cervix.



1. 4cm dilated

(Adapted from RCOG StratOG 'Mechanism of normal labour and birth').  
Further information from: **NICE - care in labour**

### Flash glucose monitoring

A flash glucose monitoring system measures sugar (glucose) levels continuously throughout the day. Flash glucose monitoring measures the amount of sugar in the fluid under the skin, called interstitial fluid. No blood glucose measurement is made. Interstitial fluid sugar readings are a few minutes behind the blood sugar levels. Finger prick testing of the blood glucose level is needed every now and then.  
Further information from: **NHS - flash glucose monitoring**

### Flat hands/prayer hands

Flat hands/prayer hands describes the position of a clinician's hands on a baby when performing internal manoeuvres during a vaginal breech birth. (HSIB maternity team)

### Flexion point

The flexion point on a baby's head is where the cup of a ventouse is placed. When the ventouse cup is applied on the flexion point, a baby's head will remain flexed (tucked in) during the procedure. (HSIB maternity team)

### Fluid challenge

A fluid challenge involves giving a mother/baby fluid over a short period of time followed by an assessment of their response. (HSIB maternity team)

### Fluid overload

(too much fluid in the circulatory system)

## **Fluoroscopy**

Fluoroscopy is an imaging technique used to look at a mother's internal organs using x-rays. Unlike a standard x-ray, fluoroscopy produces a moving image. (HSIB maternity team)

## **Focussed assessment with sonography in trauma**

Focussed assessment with sonography in trauma (sometimes called a FAST scan) is an ultrasound scan that is performed at a mother's bedside to quickly assess her after trauma. A FAST scan may help to diagnose the cause of any bleeding inside the abdomen. (HSIB maternity team)

## **Focused echocardiography in emergency life support**

Focused echocardiography in emergency life support (FEEL) involves the use of echocardiography (ultrasound of a mother's heart) during the resuscitation of a mother. The focused echocardiogram may help to identify treatable causes of a mother's cardiac arrest. (HSIB maternity team)

## **Folic acid**

Folic acid is a medication recommended for a mother to take who is trying to get pregnant or who is in the first 12 weeks of pregnancy. Folic acid may help a baby's brain, skull and spinal cord to develop in the expected way.

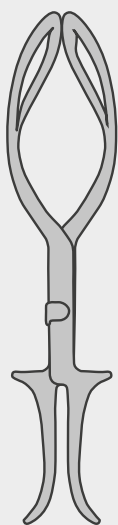
Further information from: **NHS - Folic acid**

## **Forced air warming device**

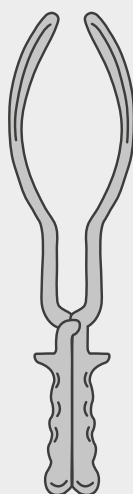
A forced air warming device is a blanket or gown which may be placed over or under a mother's body. Warm air is pushed through the device with the aim of maintaining a mother's temperature. (HSIB maternity team)

## Forceps

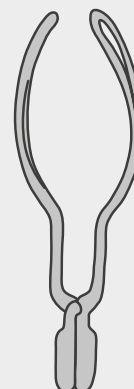
Rotational forceps



Long handled non-rotational forceps



Short handled non-rotational forceps



Forceps are smooth metal instruments that look like large spoons or tongs. They're curved to fit around a baby's head. The forceps are carefully positioned around a baby's head and joined together at the handles. With a contraction, and whilst a mother pushes, an obstetrician gently pulls to help birth a baby. There are different types of forceps. Some are specifically designed to turn a baby to the right position to be born, such as if a baby is lying facing upwards or to one side and these are known as rotational forceps. (HSIB maternity team)

### Forceps during caesarean birth

Forceps are smooth metal instruments that look like large spoons or tongs. They are curved to fit around a baby's head. The forceps are used during a caesarean birth to gently lift a baby's head out of a mother's pelvis to aid birth. (HSIB maternity team)

### Forewaters/hindwaters

As a baby moves lower in the birth canal, the membranes and the fluid within them may get squashed, meaning some of the fluid is in front of a baby's head while the rest is behind their head. The water in front is known as forewater and the water behind is known as hindwater.

A hole in the membranes in front of a baby's head may cause an obvious gush of fluid (forewater) and there will be no obvious bag of water felt in front of their head during vaginal examination.

A hindwater leak is when amniotic fluid leaks from a hole in the membranes behind a baby's head. When this happens there may not be an obvious gush of fluid, and it may be possible to still feel a bag of water in front of a baby's head during vaginal examination. (HSIB maternity team)

### **Fraction of inspired oxygen**

The fraction of inspired oxygen (FiO<sub>2</sub>) is the concentration of oxygen that is being inhaled by a mother baby. (HSIB maternity team)

### **Fractured humerus**

The humerus is the upper arm bone that runs from a baby's shoulder to their elbow. On rare occasions, during birth, a baby's humerus may fracture (break). (HSIB maternity team)

### **Frank's nudge**

Frank's nudge, sometimes called a shoulder press, is a manoeuvre which may be performed during an upright breech birth to aid the birth of a baby's head. (HSIB maternity team)

### **Fresh ears**

(whereby a second clinician confirms the fetal heart rate pattern – please adapt to ensure this reflects local interpretation).

### **Fresh eyes**

(a review of a baby's wellbeing, including categorisation of the CTG, by a second clinician).

### **Fresh eyes review**

A cardiotocograph (CTG) is usually assessed, by a clinician, each hour during a mother's labour. A fresh eyes review is an in-person assessment of a baby's wellbeing, including categorisation of the CTG, by a second clinician. This can be completed at any time before the next CTG assessment takes place.

Further information from: **NICE - Fetal monitoring in labour**

### **Fresh frozen plasma**

Fresh frozen plasma is made from the liquid part of blood. It is used to treat conditions where there are low clotting factors in the blood. (HSIB maternity team)

### **Friedreich's ataxia**

Friedreich's ataxia is an inherited condition which causes a mother to have problems with balance and coordination, weakness, difficulty swallowing and loss of sight or hearing. It is a progressive condition, and usually develops before the age of 25.

Further information from: **NHS - Friedrich's ataxia**

### **Full blood count**

This is a blood test to check the types and numbers of cells in the blood, including red blood cells, white blood cells and platelets.



## **Fungal infection**

A fungal infection is an infection caused by a fungus. Usually the symptoms of fungal infections are mild and easily treated. Rarely, when the immune system is severely weakened, the infection may become life threatening if the infection spreads from a mother's lungs to her brain. (HSIB maternity team)

## **Funisitis**

Inflammation in the umbilical cord, involving the external surface of the cord and the Wharton's jelly (a jelly like substance within the cord which supports and protects the internal blood vessels). (HSIB maternity team)

## **Furcate insertion**

Furcate insertion is a rare condition where the blood vessels of the umbilical cord insert into the placenta without the protection of the jelly which usually surrounds the umbilical cord. The loss of protection makes the umbilical cord blood vessels more vulnerable to damage and can cause complications such as bleeding during a mother's labour. (HSIB maternity team)

# G

## **Gag reflex**

Gag reflex describes a contraction of a mother's/baby's throat that may happen when something touches the roof of the mouth, the back of the tongue or throat, or the area around the tonsils. A gag reflex is a reflexive action which helps to prevent choking and swallowing harmful substances. (HSIB maternity team)

## **Gallbladder sludge**

(particulate matter released from the gall bladder)

## **Gallstones**

Gallstones are small stones, usually made of cholesterol, that form in the gallbladder. They may cause no symptoms. If they get stuck in an opening (duct) in the gallbladder it can trigger sudden and immense pain lasting several hours. Further information from: **NHS - Gallstones**

**Entonox is no longer to be used in reports. Please see the definition below**

## **'Gas and Air'**

'Gas and air' is a gas made up of 50% nitrous oxide and 50% oxygen that is used for pain relief during birth. It is administered through a mask or mouthpiece. It is simple and quick to act and wears off in minutes.

Further information from: **NHS - gas and air**

## **Gastric bypass**

A gastric bypass is an operation where surgical staples are used to create a small pouch at the top of a mother's stomach. The pouch is then connected to the small intestine, missing out (bypassing) the rest of the stomach. Gastric bypass reduces a mother's intake of food and fewer calories are absorbed. (HSIB maternity team)

## **Gastritis**

(inflammation of the lining of the stomach)

## **Gastrocnemius tear**

(an injury to a mother's calf muscle)

## **General anaesthesia**

For a general anaesthetic, the anaesthetist gives a mother medication to make her go to sleep and passes a tube through the mouth into her airway to allow oxygen to be delivered to the lungs. General anaesthesia is used less often



nowadays. It may be needed for some emergencies, if there is a reason why a regional anaesthetic is not suitable or if a mother prefers to be asleep.

Further information from: **Obstetric Anaesthetists Association - anaesthetic for caesarean birth**

### **Generalised anxiety disorder**

Anxiety is a feeling of worry or fear that may be mild or may stop a mother from completing her usual activities. Generalised anxiety disorder (GAD) is a long term condition where a mother may be anxious about more than one issue at the same time. She may feel anxious most of the time and have difficulty relaxing.

Further information from: **NHS - generalised anxiety disorder**

### **Generalised anxiety disorder 2-item**

Generalised anxiety disorder 2-item (GAD-2) is a short test that may be used as an initial screening tool for generalised anxiety disorder. (HSIB maternity team)

### **Generalised anxiety disorder 7-item scale**

Generalised anxiety disorder 7-item (GAD-7) is a test that may be used as an initial screening tool for generalised anxiety disorder. (HSIB maternity team)

### **Genetic cardiomyopathy**

A genetic cardiomyopathy is a condition where there is a genetic problem with the building blocks of the heart muscle that can lead to scarring over time. (HSIB maternity team)

### **Genetic karyotyping**

Genetic karyotyping is a blood test that may be offered during pregnancy to test for genetic or chromosomal conditions. (HSIB maternity team)

### **Genital herpes**

Genital herpes is a sexually transmitted infection caused by the herpes simplex virus (HSV). There are two types, HSV-1 and HSV-2, both of which can cause infection in the genital and anal areas. Once a person has the virus it stays in their body for life although it remains inactive for most of the time. People may only get one episode, others may have repeated flare ups.

If a mother has a first infection less than 6 weeks before she gives birth, her immune system will not have antibodies to protect the baby. This means there is a high chance of the baby contracting neonatal herpes which can be very serious. In this instance the mother would be offered a planned caesarean birth.

If the mother's first infection is before 28 weeks of pregnancy, or she has a recurrent infection, anti-viral treatment will be considered and a vaginal birth would be considered safe.

Further information from: **RCOG - Genital herpes and pregnancy**

### **Gestational allo-immune liver disease**

Gestational allo-immune liver disease (GALD) is a rare condition which may occur if fetal antigens (proteins), from a baby's liver, enter the mother's blood. The mother's immune system does not recognise the fetal antigens and creates antibodies which cross the placenta and target and damage the fetal liver. This can result in fetal or neonatal liver failure. If the condition is severe it may result in fetal loss or neonatal death. (HSIB maternity team)

### **Gestational diabetes mellitus**

Gestational diabetes (GDM) is a form of diabetes that may affect a mother in the second half of the pregnancy. It is usually diagnosed through a blood test at 24–28 weeks of pregnancy. The hormones produced during pregnancy make it more difficult for the body to use glucose properly for energy, so the glucose remains in the blood and the levels rise, leading to gestational diabetes. Mothers who are overweight, come from certain ethnic backgrounds, have a family history of diabetes, have previously had a baby over 4500g or had gestational diabetes in a previous pregnancy are at increased risk of developing gestational diabetes. Further information from: **Diabetes UK - gestational diabetes** and **NHS - gestational diabetes**

### **Gilbert's syndrome**

Gilbert's syndrome is an inherited condition where a mother's/baby's liver is unable to process bilirubin properly causing increased levels in the blood. Bilirubin is a yellow substance found in the blood. Bilirubin is produced when red blood cells are broken down in a mother's/baby's body. (HSIB maternity team)

### **Glasgow coma scale**

The Glasgow coma scale (GCS) is a system that can be used to score a person's level of consciousness. Lower scores indicate more severely impaired consciousness. Further information from: **NHS - Glasgow coma scale**

### **Glucose challenge test**

In a glucose challenge test a 50g glucose solution or sugary drink is given to a mother to drink. One hour later, a blood sample is taken from the mother and the level of glucose in her blood is calculated. If the result is above the expected range she is offered further testing to explore a possible diagnosis of gestational diabetes. (HSIB maternity team)

### **Glucose infusion rate (neonatal)**

A glucose (sugar) infusion may be given to a newborn baby either to maintain normal levels of sugar in their blood or in response to low levels of sugar in their blood. The amount of glucose needed will be calculated and given over a set amount of time; this is the infusion rate. (HSIB maternity team)



## **Glyceryl trinitrate during caesarean section**

### **Glyceryl trinitrate**

Glyceryl trinitrate (GTN), is a medicine that may be given to a mother during a caesarean birth. Obstetricians use this medicine when it is thought that relaxing the muscles of the uterus will make the birth of a baby easier. (HSIB maternity team)

### **Gradually evolving hypoxia**

(a progressive reduction in a baby's oxygen level)

### **Gram staining**

Gram staining is a microbiological examination where a mother's blood cells are stained with a purple dye (known as Gram stain) and then examined under a microscope. Bacteria that change colour are Gram-negative. Bacteria that stay purple are Gram-positive. Identifying the type of bacteria present enables treatment with the correct type of antibiotics. (HSIB maternity team)

### **Grandmultiparity**

(a mother who has given birth to four or more babies)

### **Graves' disease**

The thyroid is a small butterfly shaped organ at the front of the neck. Graves' disease is an autoimmune condition where a mother's immune system mistakenly attacks their thyroid, causing it to become overactive. An overactive thyroid can cause a wide range of symptoms. The cause of Graves' disease is unknown, it mostly affects young or middle-aged women and often runs in families.

Further information from: **NHS - overactive thyroid**

### **Gravidity and parity**

Gravidity is a term used to describe the number of times a woman has been pregnant. Parity is a term used to describe the number of times a mother has given birth to a baby after 24+0 weeks. The way gravidity and parity are recorded in a mother's maternity records varies in style. A minus ('-') symbol may be used to note a stillbirth or neonatal death; a plus ('+') symbol may be used to note a pregnancy loss before 24 weeks. (HSIB maternity team)

### **Greater occipital nerve block**

A greater occipital nerve block is a procedure that involves injecting pain-relieving medicine into nerves in the back of a mother's head (the greater and lesser occipital nerves). It may be used as a treatment for chronic migraines or headaches. (HSIB maternity team)

### **Grimace**

(a facial movement which may occur as a response to stimulation)



## Group and save/screen

(a test to determine a mother's blood group and presence of red cell antibodies)

## Group A streptococcus

Group A streptococcus (GAS), is a type of bacteria, that may be found in a mother's throat or on her skin. A mother may carry GAS without becoming ill, have a range of symptoms or, rarely, develop a life-threatening illness. If a mother is known to carry GAS, intravenous antibiotics may be recommended, to prevent the development and progression of an infection. (HSIB maternity team)

## Group B streptococcus

Group B streptococcus (GBS) is one of the many bacteria that live in the body and mothers may carry it in their vagina without any problems to themselves. If a mother is known to carry GBS, antibiotics would be recommended in labour, to prevent a rare and potentially serious infection in a baby. These should be given within an hour of onset of active labour or within one hour of admission if a mother is already in active labour. If a mother has a urinary tract infection (UTI) with GBS during pregnancy she should be offered antibiotics at the time to treat the UTI as well as antibiotics in labour.

Further information from: **RCOG - Group B streptococcus**

## Growth assessment protocol

One method of monitoring the growth of a baby is to consider relevant features of a mother (such as height, weight, ethnicity, number and weights of previous babies). These assist in making an individual projected growth chart (GROW chart) for that baby. Two measurements can be plotted on the same chart:

- Measurements taken of a mother's uterus (symphysis-fundal height, SFH)
- Expected weight of a baby (estimated fetal weight, EFW) at the time of an ultrasound scan

Measurements plotted on the individualised graph through the pregnancy, can detect slowing of the growth of a baby. This is known as the growth assessment protocol (GAP) and is produced by the Perinatal Institute.

Further information from: **Perinatal Institute - fetal growth**

## Growth ultrasound scan

This is an ultrasound scan performed to check the overall wellbeing of a baby. It involves some combination of assessing a baby's size, the amount of fluid around a baby and the measurement of blood flow to the placenta and within a baby using Doppler ultrasound. (HSIB maternity team)

## Grunting

Grunting is a particular form of noisy breathing in a newborn baby. If it occurs with every breath, or is associated with other signs of respiratory distress (nostrils flaring, chest wall being sucked in with each breath, or rapid breathing) a medical review may be needed.

Further information from: **NHS - Newborn respiratory distress**



# H

## **Haemangioma**

Haemangioma, sometimes called a strawberry birth mark, is a collection of small blood vessels that may form under a baby's skin. They are usually harmless and fade during childhood. (HSIB maternity team)

## **Haematinics**

These are substances that are essential to the formation of blood cells and include folate, vitamin B12, and iron. Deficiencies in these substances may lead to anaemia. (HSIB maternity team)

## **Haematemesis**

(vomiting blood)

## **Haematocrit**

The haematocrit, or HCT, is a measure of the red blood cells in a mother/baby's blood. A calculation is performed using measurements taken when analysing a mother/baby's blood. If these measurements are inaccurate then the HCT value will reflect this. A HCT value may be higher if a mother/baby has a high number of red blood cells or if they are dehydrated. (HSIB maternity team)

## **Haematoma**

(a collection of blood outside of blood vessels following active bleeding)

## **Haematuria**

(blood in a mother's/baby's urine)

## **Haemodynamically unstable**

(when a mother's pulse and blood pressure are not stable)

## **Haemoglobin**

Haemoglobin is the protein in red blood cells that carries oxygen to the body's organs and tissues. If a blood test reveals that haemoglobin levels are lower than normal this is known as anaemia. (HSIB maternity team)

## **Haemoglobinopathy screening**

All pregnant mothers in England are offered a blood test which checks for sickle cell and thalassaemia. This is called a haemoglobinopathy screen. Sickle cell and thalassaemia are inherited blood disorders which affect the haemoglobin in a person's blood. Haemoglobin is the part of the blood which carries oxygen around the body.

Further information from: **NHS - Haemoglobinopathy screening**



## **Haemolysed blood sample**

A haemolysed blood sample describes when the red blood cells in a mother's/ baby's blood have broken down. This may be due to disease, how the sample was obtained or laboratory factors. As a result, blood tests may not be able to be processed and a new sample may need to be taken. (HSIB maternity team)

## **Haemolytic disease of the newborn**

When a mother and baby have incompatible blood groups, a mother may make antibodies to remove any of the baby's blood cells that have crossed into her circulation. These antibodies may then cross the placental barrier in the current or a subsequent pregnancy. The antibodies may attach to the baby's blood cells, leading to these cells being broken, causing anaemia and jaundice. (HSIB maternity team)

## **Haemophilia**

Haemophilia is an inherited condition where a mother's/baby's blood is not able to clot in the expected way. Usually when a mother/baby has an injury, substances in the blood, called clotting factors, mix with platelets to make the blood form a clot. The clot will help the bleeding to stop by filling the space where the injury is. When a mother/baby has haemophilia, they may not have enough clotting factors in their body and this means that when they have an injury they may bleed for longer. There is no cure for haemophilia although treatments may be given to ease the symptoms.

Further information from: **NHS - haemophilia**

## **Haemoptysis**

(coughing up blood)

## **Haemorrhagic ovarian cyst**

An ovarian cyst is a fluid-filled sac that develops in a mother's ovary during her menstrual cycle. The cyst has a network of blood vessels within its thin walls. If a blood vessel bursts the cyst may haemorrhage (bleed) and this is called a haemorrhagic ovarian cyst. Ovarian cysts are common and may go away in a few months without needing any treatment. Some haemorrhagic cysts may require removal by surgery. (HSIB maternity team)

## **Haemothorax**

(an accumulation of blood within a mother's/baby's chest)

## **Handheld Doppler machine**

(a device used to listen to a baby's heart rate)

## Hashimoto's thyroiditis

Hashimoto's thyroiditis is a condition where a mother's immune system attacks and damages her thyroid gland, causing it to swell. This may cause a reduction in the amount of thyroid hormone produced (hypothyroidism). Symptoms of hypothyroidism include tiredness, weight gain and dry skin.

Further information available: **NHS - Thyroiditis**

## Hazardous area response team

A hazardous area response team (HART) is an emergency team who provide an initial assessment and treatment for mothers/babies who have injuries or medical problems and are located within a hazardous environment. The members of the team are specially trained ambulance staff. (HSIB maternity team)

## HbA1c

HbA1c is the average blood glucose (sugar) levels over the last two to three months. It is made when glucose in the blood sticks to red blood cells.

Further information from: **Diabetes UK - HbA1c**

## Heart block

Heart block is a condition where a mother's heart beats more slowly or with an abnormal rhythm. It is caused by a problem with the electrical pulses that control how the heart beats.

Further information from: **NHS - heart block**

## Heart failure

Heart failure is a long-term condition where a mother's/baby's heart is unable to pump blood around the body in the expected way. This may be due to the heart muscle becoming weak or stiffened.

Further information from: **NHS - heart failure**

## Heart murmur

A heart murmur is where a mother's/baby's heartbeat has an extra or unusual sound caused by a disturbed blood flow through the heart. (HSIB maternity team)

## Helicobacter pylori

Helicobacter pylori is a type of bacterium and is usually found in the mucous lining of a mother's/baby's stomach or duodenum. (HSIB maternity team)

## Helicopter emergency medical service

Helicopter emergency medical service (HEMS) organisations are often registered charities that deploy doctors (trained in pre-hospital care) and paramedics using helicopters. The HEMS team may be dispatched from the local NHS ambulance trust control room and sent to the most critically ill or injured patients. Hours of operation vary between HEMS trusts; they may operate 24/7, using a helicopter



during daylight hours and a rapid response vehicle at night. The service performs advanced medical interventions at the scene of an incident in life-threatening, time-critical situations. (HSIB maternity team)

### **HELLP syndrome**

HELLP syndrome is a rare liver and blood clotting disorder that can affect pregnant mothers. It is a severe form of pre-eclampsia.

The letters in the name HELLP stand for each part of the condition:

- **“H”** is for haemolysis – this is where the red blood cells in the blood break down
- **“EL”** is for elevated liver enzymes (proteins) – a high number of enzymes in the liver is a sign of liver damage
- **“LP”** is for low platelet count – platelets are substances in the blood that help it clot

Further information from: **NHS - HELLP syndrome**

### **Hemifacial microsomia**

Hemifacial microsomia (sometimes known as craniofacial microsomia) is a condition present from birth where some of a mother's/baby's facial features on one side of the face are underdeveloped. (HSIB maternity team)

### **Henoch-Schönlein purpura**

Henoch-Schönlein purpura (HSP) is a condition affecting a mother's blood vessels which may cause a rash. The rash may involve a few or many raised red or purple spots. The condition usually resolves by itself within a few weeks. HSP can affect the kidneys which may require additional treatment and follow up.

Further information from: **NHS - Henoch-Schönlein purpura**

### **Hepatic encephalopathy**

An important role of a mother's liver is to remove toxins from the blood. If the liver becomes damaged, the level of toxins in the blood may increase and can affect the functioning of the brain. Symptoms of hepatic encephalopathy include;

- **Agitation**
- **Confusion**
- **Disorientation**
- **Muscle stiffness/tremors**
- **Difficulty speaking**
- **Coma**

Further information from: **NHS - hepatic encephalopathy**

### **Hepatic necrosis**

(when the cells of the liver die and the liver is unable to work effectively)

### **Hepatic vein obstruction**

(a blockage in the blood vessels that take blood away from the liver)



## **Hepatitis B**

Hepatitis B is an infection of a mother's/baby's liver, caused by a virus that is spread through blood and body fluids. If a mother has hepatitis B the infection may be passed on to a baby at birth.

Further information from: **NHS - Hepatitis B**

## **Hepatitis B immunisation**

A baby who is at risk of catching hepatitis B during their birth, will be recommended to receive a hepatitis B vaccine shortly after birth to prevent infection and serious liver disease later on in life. Immunisation from birth is usually effective in preventing a baby developing long-term hepatitis B infection. Further doses may be given at 4, 8, 12 and 16 weeks, and a final dose at 12 months. The baby will be tested for hepatitis B infection at 12 months of age.

Further information from: **NHS - Hepatitis B**

## **Hepatitis C virus**

Hepatitis C is an infection of a mother's/baby's liver. The infection is caused by a virus and is usually spread by blood to blood contact. If a mother has hepatitis C, the infection may be passed on to her baby at birth.

Further information from: **NHS - Hepatitis C.**

## **Hepatitis D**

Hepatitis D is a liver infection, caused by a virus that is spread through a mother's blood and body fluids. It affects mothers who are already infected with hepatitis B. If a mother has hepatitis D, the infection may be passed on to her baby at birth.

Further information from: **NHS - hepatitis**

## **Heparin**

(a medication used to treat and prevent blood clots)

## **Heparin-induced thrombocytopenia**

(the development of a low platelet count due to the administration of heparin)

## **Hepatorenal syndrome**

Hepatorenal syndrome is a condition where a mother's kidneys do not work in the usual way as a result of serious liver conditions. (HSIB maternity team)

## **Hepatosplenomegaly**

Hepatosplenomegaly is when a mother's/baby's liver and spleen are larger than expected. (HSIB maternity team)

## **High epidural block**

A high epidural block may occur when a mother's epidural anaesthetic spreads above a specific point in her spinal cord. This may affect her heart or her ability to breathe. (HSIB maternity team)



### **‘High head’**

A clinician may describe a baby’s head as high, when on examination it remains high in the birth canal. This may be taken into account when giving information to a mother or making recommendations about a mother’s care. (HSIB maternity team)

### **High flow nasal canula**

High flow nasal canula (HFNC) is a form of ventilation that uses nasal cannula to deliver heated and humidified oxygen or air. (HSIB maternity team)

### **High frequency oscillation ventilation**

This is a type of mechanical ventilation which may be used for a mother/baby when conventional ventilation has not worked. (HSIB maternity team)

### **High output cardiac failure**

(When a mother’s heart cannot keep up with an unusually high cardiac output.)

### **High spinal block (to be used with the spinal text box)**

A high spinal block may occur when the spinal anaesthetic spreads above a specific point in a mother’s spinal cord. This may affect her heart or breathing function. (HSIB maternity team)

### **Hirschsprung’s disease**

Hirschsprung’s disease is a condition where the nerves that control the passage of stool (poo) through a mother’s/baby’s bowel are missing from the end of the bowel. A baby with Hirschsprung’s disease may present with delayed passing of meconium, abdominal distension and signs of an obstruction in the bowel.

Further information from: **NHS - Hirschsprung’s disease**

### **HIT score**

(the likelihood of developing HIT)

### **Horseshoe kidney**

A congenital anomaly when the two kidneys are fused together at the upper or lower ends forming a single organ lying across the midline of the body. (HSIB maternity team)

### **Hospital acquired pneumonia**

A hospital acquired pneumonia is an infection in a mother’s/baby’s lungs which occurs whilst a mother/baby is in hospital receiving care for another condition. (HSIB maternity team)



## **Hot cot**

A hot cot, or warming mattress, consists of a soft, water or gel filled mattress which is maintained, by a heating pad and a control unit, at a precise temperature. The aim is to provide extra warmth to a baby to support them in maintaining a normal body temperature. They may also be used to rewarm a cold baby. (HSIB maternity team).

## **Hot debrief**

(a discussion that takes place immediately after an event)

## **Human albumin solution**

Albumin is a protein produced by a mother's/baby's liver that circulates in plasma (the clear liquid portion of blood). Human albumin solution (HAS) may be given to a mother to restore or maintain circulating blood volume. (HSIB maternity team)

## **Human immunodeficiency virus**

The human immunodeficiency virus (HIV) is a virus that damages the cells in the immune system and weakens the ability to fight everyday infections and disease. Further information from: **NHS - HIV**

## **Hyaline membrane disease**

Hyaline membrane disease, sometimes called respiratory distress syndrome is difficulty breathing secondary to immaturity of a baby's lungs. This may be caused by deficiency of a substance in the lungs called surfactant. Hyaline membrane disease is most common in preterm babies but can occur in term babies. (HSIB maternity team)

## **Hydrocephalus**

(extra fluid in a mother's/baby's brain)

## **Hydronephrosis**

Hydronephrosis is a condition where one or both kidneys become stretched and swollen as the result of a build-up of urine inside them. Hydronephrosis is common in pregnancy and is usually mild. Mothers may not require any treatment as it resolves when a baby is born, the condition can increase the chances of getting a urinary tract infection (UTI).

Further information from: **NHS - hydronephrosis**

## **Hydrops fetalis**

Hydrops fetalis is a serious condition in which a baby has an abnormal build-up of fluid in and around their lungs, heart and abdomen, or under their skin. It may be caused by a variety of conditions in either a mother or baby. Treatment of the condition depends on the cause. (HSIB maternity team)

## Hydrotherapy

Being in water can help mothers relax and make contractions seem less painful. This could be in a bath or a birthing pool. The water is kept at a comfortable temperature, not above 37.5C, and the temperature of the mother should be monitored hourly whilst she is in water.

Further information from: **NHS - using water in labour**

## Hyperaesthesia

Hyperaesthesia is a condition where a mother/baby has an increased sensitivity to stimulation of one or more of their senses (sight, sound, touch or smell). (HSIB maternity team)

## Hypercoiled umbilical cord

If there are more than 3 coils per 10cm of umbilical cord it is said to be hypercoiled. The blood vessels in a hypercoiled umbilical cord are more likely to be compressed, which can affect the blood and oxygen supply to a baby. (HSIB investigation team)

## Hyperemesis gravidarum/severe vomiting in pregnancy

Some mothers experience severe nausea and vomiting. They may be sick many times a day and be unable to keep any food or drink down. This can impact on their daily life. Excessive nausea and vomiting is known as hyperemesis gravidarum (HG) and often needs hospital treatment.

Further information from: **NHS - Severe vomiting in pregnancy**

## Hyperinsulinemia

Hyperinsulinemia is a condition where a mother/baby has a more insulin in their blood than usual.

Further information from: **Diabetes.co.uk - hyperinsulinemia.**

## Hyperkalaemia

Hyperkalaemia is a condition where there is too much potassium in a mother's/ baby's blood. Potassium is a mineral in the blood which keeps muscles and nerves working properly. Too much potassium can affect how the heart functions causing the development of an abnormal rhythm which can be dangerous.

Hyperkalaemia may be treated in the acute situation with a variety of medications - intravenous calcium chloride (to protect the heart), an insulin-glucose infusion or a salbutamol nebuliser (to move potassium into cells) and potassium binding drugs (to remove potassium from body). (HSIB maternity team)

## Hypermobility syndrome

Hypermobility syndrome is when a mother's joints are more flexible than usual, and this causes pain. The main treatment is improving muscle strength and fitness, so the mother's joints are protected.

Further information from: **NHS - hypermobility syndrome**



## Hyperstimulation

Hyperstimulation is overactivity of the uterus, which sometimes may be caused by medications given to induce labour. Hyperstimulation means more than five contractions every 10 minutes, for at least 20 minutes; or a contraction lasting more than two minutes. In hyperstimulation there are changes in a baby's heart rate in response to the increased or prolonged contractions.

A baby needs time to recover in between contractions or their wellbeing may become compromised. A medicine called terbutaline may be given to space out contractions. Giving terbutaline to slow contractions is referred to as tocolysis. Further information from: **NICE - induction of labour**

## Hypertelorism

Hypertelorism is a condition present from birth where there is larger than expected distance between a mother's/baby's eyes. (HSIB maternity team)

## Hypertension in pregnancy

Hypertension describes high blood pressure. Blood pressure is recorded with two numbers. The systolic pressure (higher/top number) is the force at which the heart pumps blood around the body. The diastolic pressure (lower/bottom number) is the pressure in the arteries when the heart rests in between beats. They are both measured in millimetres of mercury (mmHg). As a general guide: high blood pressure is considered to be 140/90 mmHg or higher. Hypertension in pregnancy can be pre-existing (before pregnancy), or pregnancy-related (if it develops after 20 weeks).

Further information from: **NICE - hypertension guidance**

## Hyperthyroidism

Hyperthyroidism, sometimes called overactive thyroid is a condition where a mother's/baby's thyroid gland produces too much thyroid hormone. Symptoms of hyperthyroidism include;

- Nervousness, anxiety and irritability
- Mood swings
- Persistent tiredness and weakness
- Sensitivity to heat
- Swelling in the neck (caused by an enlarged thyroid gland)
- Irregular and/or faster than expected heart rate
- Twitching or trembling
- Weight loss
- Poor feeding and poor weight gain in baby's

Further information from: **NHS - hyperthyroidism**

## Hypertonic/hypertonia

(where there is increased muscle tone in a mother/baby)

## Hypertrophy

(thickening)



## **Hypertrophic obstructive cardiomyopathy**

Hypertrophic obstructive cardiomyopathy (HOCM) is a condition that affects the walls of a mother's heart, which become thickened. The condition can either be inherited or occur as a result of an altered gene. HOCM can affect the ability of the heart to pump blood around the body. (HSIB maternity team)

## **Hypnobirthing**

Hypnobirthing involves a mother learning and using a variety of techniques as coping strategies during her labour. These may include visualisation, pregnancy and birth affirmations, relaxation, deep breathing, self-hypnosis and mindfulness. (HSIB maternity team)

## **Hypocalcaemia (baby)**

Hypocalcaemia is a condition where there are low calcium levels in a baby's blood. Symptoms of hypocalcaemia may include:

- Irritability
- Poor feeding
- Muscle twitches or jitteriness
- Lethargy
- Seizures

Hypocalcaemia may resolve by itself, sometimes a calcium supplement can be given to a baby by mouth or intravenous infusion. (HSIB maternity team)

## **Hypocomplementemic urticarial vasculitis syndrome**

Hypocomplementemic urticarial vasculitis syndrome (HUVS) is a rare and severe form of urticarial vasculitis. As well as the symptoms of hypocomplementemic urticarial vasculitis (HUV) a mother will experience wider problems within the body, these may cause inflammation of the eyes, kidneys, lungs and tissues under the skin. HUVS may cause breathing difficulties and heart problems. (HSIB maternity team)

## **Hypocomplementemic urticarial vasculitis**

Hypocomplementemic urticarial vasculitis (HUV) is a severe form of urticarial vasculitis and may include symptoms such as purple or dark red spots or rash on a mother's skin (a typical vasculitic rash); arthritic joint pain; breathing difficulties such as asthma, or stomach pains. (HSIB maternity team)

## **Hypoglycaemia**

(when there is a low level of sugar in a mother's/baby's blood.)

## **Hypoglycaemic protocol**

Hypoglycaemia is when there is a low level of sugar in a baby's blood. When a baby is at risk of or suspected to have hypoglycaemia, their blood will be tested before and after a feed. They may be given extra milk feeds or medicine to increase their blood sugar. (HSIB maternity team)

### **Hypoglycaemia screen**

Blood tests that may be performed on a baby, to explore the cause of hypoglycaemia (low levels of sugar in a baby's blood), are called a hypoglycaemia screen. (HSIB maternity team)

### **Hypokalaemia**

(low potassium levels in a mother's/baby's blood)

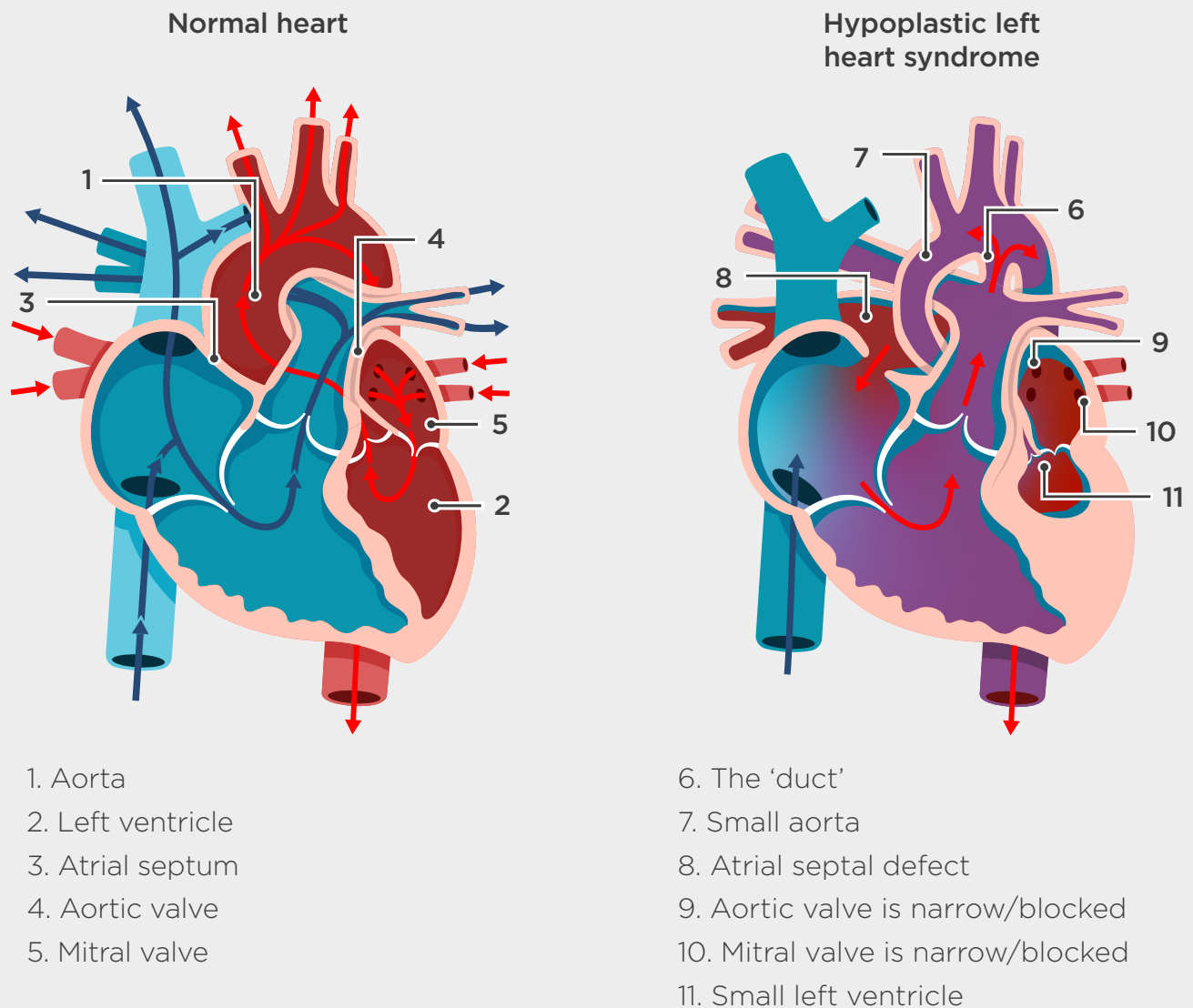
### **Hyponatraemia**

Hyponatraemia is a low level of sodium in a mother's/baby's blood. Sodium is needed to regulate blood pressure and fluid balance. Hyponatraemia may be caused by a mother drinking excess amounts of water. (HSIB maternity team)

### **Hypoperfusion**

Hypoperfusion occurs when there is a reduced circulation of blood within a mother's body. If this continues, the part of the body affected may not receive enough oxygen. (HSIB maternity team)

## Hypoplastic left heart syndrome



Hypoplastic left heart syndrome is when the left side of a baby's heart does not develop as expected. This means that blood does flow through the heart and lungs in the usual way.

Illustration based on an image and further information from: **British Heart Foundation - Heart and circulatory conditions**

### Hypothyroidism

An underactive thyroid gland (hypothyroidism) is where a mother's/baby's thyroid gland does not produce enough thyroid hormone. Mother's/Babys' may have pre-existing hypothyroidism, or may develop it during pregnancy. A mother may need treatment with daily thyroid hormone replacement medication.

Further information from: **NHS - underactive thyroid**



## Hypoxic ischaemia

Hypoxic ischaemia is a lack of blood flow and oxygen to a mother's/baby's organs. (HSIB maternity team)

## Hypoxic ischaemic encephalopathy

Hypoxic ischaemic encephalopathy (HIE) is a brain injury caused by an interrupted supply of oxygen to a baby's brain occurring during the antenatal, intrapartum or postnatal period. It occurs in 1.0 to 3.5 per 1000 live births in the United Kingdom. An interrupted oxygen supply can also affect other organs as well as the brain which can lead to severe, lifelong disability or death. The UK total body cooling trial confirmed that 72 hours of cooling to a core temperature of 33-34C within six hours of birth for babies with moderate or severe HIE reduces death and disability at 18 months of age and improves neurodevelopmental outcome in survivors. Therapeutic hypothermia (active cooling) is a procedure where a baby is cooled to between 33C and 34C, with the aim of preventing further brain injury following a hypoxic (lack of oxygen) injury. Hypothermia is usually induced by cooling the whole body with a blanket or mattress and this is referred to as active cooling. Prior to active cooling, a baby once resuscitated can have passive cooling by turning off heating equipment and removing any coverings from the baby. Further information from: **British Association of Perinatal Medicine 2020 - Therapeutic hypothermia for neonatal encephalopathy**

## Hypoxic ischaemic encephalopathy (mother)

Hypoxic ischaemic encephalopathy (HIE) can also be referred to as global hypoxic ischaemic brain injury. This is caused by reduced oxygen delivery to the brain which can occur when a mother's heart stops beating, or if she has insufficient oxygen in her blood. The resulting lack of oxygen to the brain causes permanent damage to the tissues in the brain. HIE can result in seizures, loss of consciousness, abnormal blood pressure and abnormal hormones throughout the body. (HSIB maternity team)

## Hysteroscopic resection of a uterine septum

Usually the inside of a mother's uterus is regular in its outline. Sometimes there is a wall of tissue that runs from the upper part of the uterus towards the lower part. This is called a uterine septum. A small camera (hysteroscope) may be inserted into a mother's uterus through her cervix and the uterine septum may be removed. This is called hysteroscopic resection. (HSIB maternity team)



## **Iatrogenic**

(illness or harm to a mother/baby caused by healthcare investigations or treatment)

## **Idiopathic thrombocytopenic purpura**

Idiopathic thrombocytopenic purpura (ITP) is a condition where the number of platelets in a mother's/baby's blood is reduced. Platelets help a mother's/baby's blood to clot and prevent bruising. (HSIB maternity team)

## **Ileus**

An ileus occurs when there is a lack of movement of a mother's/baby's bowel. This stops the contents of the bowel moving through the body. (HSIB maternity team)

## **Impacted head**

A baby's head is said to be 'impacted' if a mother's contractions have forced the head deep into her pelvis. A baby's head cannot advance, and it is difficult to pull or push back into the uterus for a caesarean birth. (HSIB maternity team)

## **Improving access to psychological therapy programme**

Improving access to psychological therapy (IAPT) is an NHS service designed to offer short-term, evidence-based psychological therapies to people with anxiety disorders and depression.

Further information from: **NHS - IAPT**

## **Incoordinate uterine contraction**

(when the upper and lower areas of a mother's uterus are not contracting in time with each other)

## **Induction of labour**

Induction of labour (IOL) is the process of artificially starting labour using a variety of medications and techniques. Usually the first stage is to soften and prepare a mother's cervix by using prostaglandin tablets, pessaries or gels. Sometimes her cervix will be prepared using a mechanical method, such as a balloon. The next stage is to artificially break the waters (artificial rupture of membranes (ARM)). If contractions are still not strong or regular enough the drug oxytocin is given. This is one of the hormones produced naturally by mothers in labour and assists in increasing the frequency of contractions. Oxytocin is given through a drip, and the timing of the subsequent contractions are monitored closely. If the contractions are too sparse, or become too frequent, the amount of oxytocin given via the drip will be altered.

Further information from: **NICE - induction of labour**



## **(Following IUFD)**

### **Induction of labour when a baby is stillborn**

Induction of labour (IOL) following the death of a baby in the womb is the process of artificially starting labour using a variety of medications and techniques.

The first stage is often for a mother to take an oral tablet that stops the pregnancy hormone progesterone working, to prepare her body for labour.

The next stage is to artificially start contractions of a mother's uterus. This may be using vaginal or oral prostaglandin tablets, by artificially breaking the waters (artificial rupture of membranes (ARM)) or using the drug oxytocin given through a drip. (HSIB maternity team)

### **Infarction**

Infarction occurs when there is an interruption of the blood supply to a mother's/ baby's organ or region of tissue causing the cells in that area to die. (HSIB maternity team)

### **Inflammatory bowel disease**

Inflammatory bowel disease (IBD) is a term used to describe two conditions: ulcerative colitis and Crohn's disease. These are long-term conditions that involve inflammation (swelling) of a mother's gut. Ulcerative colitis affects the colon (large intestine). Crohn's disease may affect any part of a mother's digestive system, from the mouth to the bottom (anus). A mother may develop IBD at any age; it is usually diagnosed between the age of 15 and 40.

Further information from: **NHS - Inflammatory bowel disease**

### **Inflation and ventilation breaths**

If a baby is not breathing by themselves following birth, they may require inflation breaths to help fill their lungs with air and expel the fluid that is within the lungs in the womb. These are given using emergency breathing equipment designed for newborn babies on a resuscitaire or carried by the midwife at a homebirth.

Once the lungs have been adequately inflated, if a baby still needs support with breathing the same equipment is used to provide shorter, more frequent ventilation breaths to a baby. (HSIB maternity team)

### **Inotropes**

Inotropes are a group of medicines that alter the strength of the heart muscle's contractions. They are commonly used when a mother/baby's heart is failing. (HSIB maternity team)

### **Insulin pumps**

An insulin pump delivers insulin into the blood throughout the day and night. This reduces episodes of low blood sugars and can improve blood glucose levels.

Insulin flows into the body through a tiny tube under the skin. The tube is replaced every 2 to 3 days and the pump moved to another part of the body. It delivers a set amount of background insulin with additional insulin at mealtimes.



A pump can give a mother with diabetes more flexibility with what they eat and help them to have more stable blood glucose levels.

Further information from: **NHS - insulin pumps in pregnancy**

## **INTERGROWTH-21ST**

The INTERGROWTH-21st project is a worldwide study that has developed tools to monitor a baby's growth before birth.

Further information from: **INTERGROWTH-21st**

## **Intermittent auscultation**

Intermittent auscultation (IA), or 'listening in', is the recommended method of a listening to a baby's heart rate in labour, in pregnancies where there are no anticipated complications. This is performed by using either a hand-held (Pinard) stethoscope or a hand-held Doppler machine. During labour, midwives listen into a baby's heartbeat for at least a minute, immediately after a contraction. This is repeated at a minimum of every 15 minutes in the first stage of labour, and at least every 5 minutes in the second stage of labour. A mother's pulse should be measured, recorded hourly in the first stage of labour and every 15 minutes in the second stage of labour. The pulse may then be compared to a baby's heart rate, to check both heart beats are being monitored.

Further information from: **NICE - care in labour (includes IA)**

## **Intermittent pneumatic compression boots**

Intermittent pneumatic compression (IPC) boots may be used to help prevent a mother developing blood clots in the deep veins of her legs. The boots fit around her lower legs and are inflated intermittently. IPC boots gently squeeze the legs and increases blood flow through the veins, helping to prevent blood clots. (HSIB maternity team)

## **Internal carotid artery**

The internal carotid area is a blood vessel in a mother's/baby's neck which supplies blood to her brain. (HSIB maternity team)

## **Internal carotid artery dissection**

The internal carotid artery is a vessel that supplies blood to a mother's brain. Internal carotid artery dissection is a condition when a tear appears in the internal wall of the artery which can cause problems with blood supply to the brain. (HSIB maternity team)

## **Internal iliac artery ligation**

Internal iliac artery ligation (IIAL) is a surgical procedure where blood vessels are tied off with the aim to control pelvic haemorrhage. (HSIB maternity team)

### **Internal rotation manoeuvres**

A manoeuvre used during a shoulder dystocia to try to birth a baby. A midwife or doctor will use their hand to press on the front or the back of the shoulder, to encourage a baby to rotate in a mother's pelvis. When pressure is placed on the back of the shoulder it should also reduce the diameter of a baby's shoulders. (HSIB maternity team)

### **International normalised ratio**

International normalised ratio (INR) is one of the blood tests that measures how fast a mother's blood is able to clot. (HSIB maternity team)

### **Interventional radiology**

Interventional radiology is a medical specialisation that involves performing a range of imaging procedures to obtain images of the inside of the body. The interventional radiologist interprets these images to diagnose injury and disease, and to perform a range of interventional medical procedures such as embolization (a procedure to stop bleeding). (HSIB maternity team)

### **Intestinal obstruction**

(blockage in the bowel)

### **Intestinal peristalsis**

Intestinal peristalsis describes part of a mother's digestive process where the muscle walls in the intestine repeatedly tighten and relax (peristalsis). This moves food and waste through the body. (HSIB maternity team)

### **Interstitial cystitis**

Interstitial cystitis is a condition of a mother's bladder which may cause chronic pelvic pain and difficulties passing urine. Interstitial cystitis is not thought to be caused by an infection and treatment with antibiotics is not needed.

Further information: **NHS - interstitial cystitis**

### **Intracranial hypertension**

Intracranial hypertension (IH) is an increase of pressure around a mother's/baby's brain. IH may be caused by an injury to the head or by bleeding or infection in and around the brain. If there is no known cause for the IH, this is called idiopathic IH.

Further information from: **NHS - intracranial hypertension**

### **Intracranial pressure**

Intracranial pressure is a measure of the pressure within a mother's/baby's brain. (HSIB maternity team)

### **Intraparenchymal haemorrhage**

(bleeding within the brain tissue)

## **Intraosseous cannulation**

Intraosseous cannulation is the insertion of a needle into a bone to allow the medication or fluids to be given directly into the blood stream. (HSIB maternity team)

## **Intraosseous needle**

(a needle which is inserted into a bone to allow medication to be given)

## **Intrapartum**

(the time from the onset of a mother's labour to when a baby is born)

## **Intrapartum haemorrhage**

(bleeding during a mother's labour)

## **Intrauterine fetal death**

(When a baby dies whilst they are inside their mother's womb)

## **Intrauterine infection**

Intrauterine infection is infection within a mother's womb. The womb, amniotic fluid and the environment in which a baby develops can become infected with bacteria. These are often bacteria that many women carry in their vagina or on their skin. These are usually harmless. In some cases, these bacteria may move to parts of the body where they should not be. The most common route of intrauterine infection is through the vagina and cervix. It may also come through the placenta, the fallopian tubes or following an invasive procedure such as amniocentesis.

Further information from: **Tommy's - intrauterine infection**

## **Intravenous cutdown**

Intravenous cutdown is an emergency procedure in which a skin incision is made directly over a mother's vein in their ankle or elbow. Once the vein is exposed a cannula can be inserted into the vein under direct vision. Intravenous cutdown can be used to obtain vascular access when peripheral cannulation is difficult or impossible. (HSIB maternity team)

## **Intravenous immunoglobulins**

Immunoglobulins are the antibodies produced naturally by the immune system, which help fight infection and disease. Intravenous immunoglobulin (IVIg) is a treatment that combines immunoglobulins donated by different people to treat various conditions. IVIg is used to reduce the effects of some inflammatory conditions that involve the immune system, also known as autoimmune diseases. It's also used to increase levels of immunoglobulins if these are low, or have been lowered by treatment with other drugs. IVIg is not commonly used in the UK.

Further information from: **Versus Arthritis - What is IVIg?**

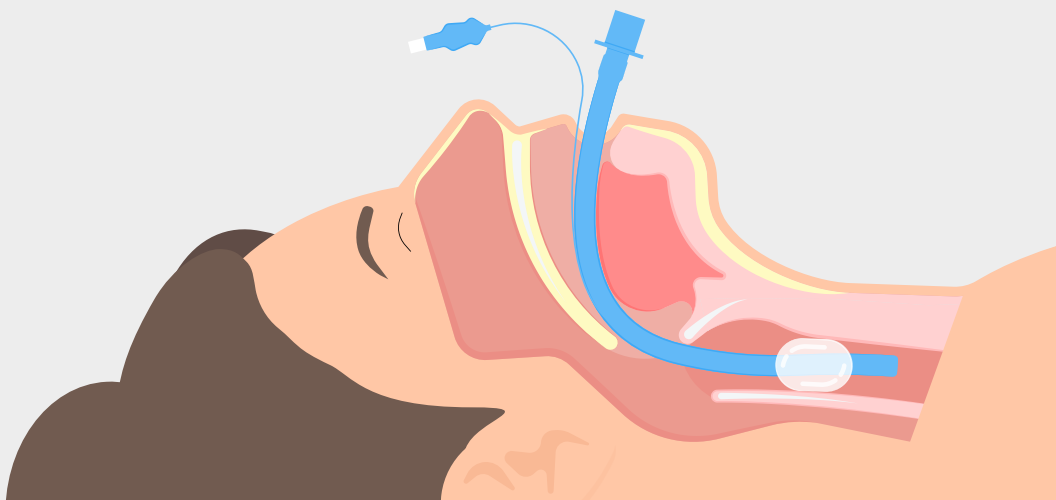
### **Intravenous iron infusion**

When a mother with low iron levels is unable to take iron tablets, or if there is a need to increase her iron levels quickly, an intravenous iron infusion may be used. (HSIB maternity team)

### **Intra-ventricular haemorrhage**

Intra-ventricular haemorrhage is bleeding into the fluid filled spaces (ventricles) in a mother/baby's brain. (HSIB maternity team)

### **Intubation and ventilation**



Mechanical ventilation uses a breathing machine called a ventilator to help move air into and out of the lungs. In order to connect a mother's lungs to a ventilator a clinician will insert a plastic tube through the mouth into the windpipe through a process known as intubation. The tube that is inserted is known as an endotracheal (ET) tube. (HSIB maternity team)

### **Intubation of a baby**

When a baby needs additional support with breathing, a tube may be passed through the mouth and into the windpipe to allow oxygen to be delivered directly to the lungs. A breathing machine, called a ventilator, may be used to move the oxygen into and out of the lungs. (HSIB maternity team).

### **Inverted T incision**

An inverted T incision describes a type of an incision that can be made during a caesarean birth. The inverted T incision usually begins with a low incision across (transverse) a mother's uterus. A vertical incision upwards in the centre of the uterus completes the inverted T shape. An inverted T incision may be performed if the surgeon requires additional access to a mother's uterus to safely birth the baby. (HSIB maternity team)

## Investigations following a stillbirth

Clinical assessment and laboratory tests are recommended following a stillbirth to assess maternal wellbeing, to try to find the cause of death of a baby, to understand the chance of recurrence and as a possible means of avoiding future pregnancy complications. It is known that no specific cause is found in almost half of stillbirths.

Abnormal test results may not necessarily be related to a baby's death and correlation between post-mortem examination reports and blood tests is needed. Investigations may involve blood samples for conditions known to be related to stillbirth e.g. diabetes and microbiology samples (swabs) to look for infective causes. In addition a mother and father may choose to have a post-mortem examination of the baby and histological (under a microscope) examination of the placenta. (HSIB maternity team)

## Iron deficiency anaemia

Iron deficiency anaemia is a condition caused by low levels of iron in a mother's body, often because of blood loss or pregnancy. Common symptoms can include tiredness and lack of energy, shortness of breath, noticeable heartbeats (heart palpitations) and pale skin. Iron deficiency anaemia can be treated with iron tablets or intravenous medication and by eating iron-rich foods.

Further information from: **NHS - Iron deficiency anaemia**

## Ischaemic bowel

Ischaemic bowel is a condition that occurs when blood flow to a mother's/baby's bowel is blocked. Ischaemic bowel can be caused by a clot blocking an artery, narrowing of arteries, or when the amount of blood flowing in the arteries to the bowel is reduced (due to low blood pressure, heart failure or loss of blood volume). Ischaemic bowel may occur suddenly or over a long period of time.

Further information from: **British Heart Foundation - bowel ischaemia**

## Ischial spines

The ischial spines are a landmark in a mother's pelvis. Clinicians describe a baby's position in relation to the spines as a measure of how far through the birth canal a baby has travelled.

- **Midpoint of the birth canal** = spines
- **High in the birth canal** = above spines
- **Low in the birth canal** = below spines
- **Visible at the vaginal opening** = +3

(HSIB maternity team)

## Isoflurane

(an anaesthetic gas used to maintain general anaesthesia)





# J

## **Jaundice in a mother**

Bilirubin is a waste product, formed in the liver, and is removed from the body in bile and urine. Jaundice occurs when a mother's skin and the whites of her eyes turn yellow, caused by a build-up of bilirubin in her body. Jaundice can be a sign of something serious, such as liver disease and requires urgent medical attention. Assessment of central jaundice can be more challenging in mothers who have black or brown skin.

Further information from: **NHS – Jaundice**

## **Jaw thrust**

Jaw thrust is a manoeuvre that may be used during the resuscitation of a mother/baby. The jaw thrust manoeuvre involves moving the mother's/baby's jaw forwards. This moves the tongue away from the back of the throat and may help to open and/or maintain their airway.

Further information available: **Resuscitation Council UK - Newborn resuscitation**

## **Jugular venous pressure**

Jugular venous pressure is an indirect measure of the amount of blood returning to a mother's heart and how effectively the heart is pumping the blood around the body. (HSIB maternity team)

## **Juvenile myoclonic epilepsy**

Epilepsy is a condition affecting a mother's brain. It is caused by bursts of electrical brain activity (seizures). Epilepsy may cause a range of symptoms, some of which may temporarily affect a mother's ability to control her body's movements.

A myoclonic seizure causes a mother's body to twitch or jerk, like an electric shock. They often happen soon after waking up and are short lasting (a fraction of a second). Sometimes a mother may have several myoclonic seizures, one after the other.

# K

## **Kawasaki disease**

Kawasaki disease (sometimes called mucocutaneous lymph node syndrome) is a condition that mainly affects children under the age of five. Symptoms may include a high temperature that lasts for five days or more, with a rash, swollen glands in the neck, dry cracked lips, red fingers or toes and red eyes. After a few weeks, and with the correct treatment, the symptoms may become less severe. It may take longer than this in some children. (HSIB maternity team)

## **Ketamine**

(a medication used to assist with pain control and to induce anaesthesia)

## **Ketones in the urine**

Ketones are produced when a mother's/baby's body breaks down fat to use as fuel for energy. Usually a mother's/baby's body will use glucose (sugar) for energy. When there is not enough glucose, the body uses fat as an alternative and ketones will then be present in a mother's/baby's urine. (HSIB maternity team)

## **Klebsiella pneumoniae**

Klebsiella pneumoniae is a bacterium that may live inside a mother's/baby's intestines, where it does not usually cause disease. Klebsiella pneumoniae can travel to other areas of a mother's/baby's body and may cause illnesses such as pneumonia (infection of the lungs), septicaemia (infections in the blood stream), meningitis (infection of the brain or spinal cord) or urinary tract infections. (HSIB maternity team)

## **Klebsiella aerogenes**

Klebsiella aerogenes is a bacterium that may live inside a mother's/baby's intestines, where it does not usually cause disease. Klebsiella aerogenes can travel to other areas of a mother's/baby's body and may cause illnesses such as urinary tract infections. (HSIB maternity team)

## **Kleihauer test**

A Kleihauer test is a blood test which may be performed to establish whether there are any of a baby's blood cells within a mother's circulation. (HSIB maternity team)

# L

## **Lactate (mother)**

Lactate is produced in tissues when there is not enough oxygen available for normal energy metabolism. An elevated lactate level (above 2.0mmol/L for a mother) is associated with more significant illness. A mother's lactate level may be raised during and immediately after an uncomplicated labour and birth. (HSIB maternity team)

## **Lactate (baby)**

Lactate is produced in tissues when there is not enough oxygen available for normal energy metabolism. The expected lactate level for a newborn baby has been reported as up to 4.9mmol/L. (Chanrachul et al, 1999)

## **Lactic acid**

If a baby has low oxygen levels in the womb, lactic acid may be produced when sugar is broken down to produce energy. This process is called anaerobic (without oxygen) metabolism. If the low oxygen levels continue a baby's blood may become acidic, which can affect their wellbeing. (HSIB maternity team)

## **Laparotomy**

A laparotomy is a surgical procedure that involves an incision being made in the abdominal wall. This allows the surgeon access to the contents of the abdomen in order to identify and repair any emergency problems that may have occurred. (HSIB maternity team)

## **Large for gestational age (macrosomia)**

Babies who measure above the 95th centile (NICE, 2022) on either a personalised or population based growth chart, or are estimated to weigh more than 4,500 grams (RCOG, 2012), are considered to be large for gestational age (LGA). Current NICE guidance recommends that the options for birth for mothers (without diabetes) with suspected fetal macrosomia are expectant management, induction of labour or caesarean birth. As there is not enough evidence to recommend one method over another, NICE states that women be provided with information about different modes of birth so they are able to make an informed decision. The RCOG recommend that mothers with suspected LGA babies are counselled about the risks of shoulder dystocia.

Further information from: **NICE - Inducing Labour, RCOG and Shoulder dystocia**

## **Large loop excision of the transformation zone and cone biopsy**

Large loop excision of the transformation zone (LLETZ) is a common treatment to remove abnormal cells from a mother's cervix using a thin wire loop that is heated. A cone biopsy is done less frequently than LLETZ and is a minor operation to cut a cone-shaped piece of tissue, from a mother's cervix, that

contains the abnormal cells. A cone biopsy is usually performed when there is a large area of tissue that needs to be removed

Further information from: **NHS - Colposcopy**

### **Laryngomalacia**

Laryngomalacia is a cause of noisy breathing in a baby. It happens when a baby's larynx (or voice box) is soft and floppy. When a baby takes a breath, the part of the larynx above the vocal cords falls in and temporarily blocks their airway. (HSIB maternity team)

### **Laser therapy of abnormal cervical cells**

Laser therapy, sometimes called ablation, describes the use of a laser beam directed onto abnormal cells within a woman's cervix. The cells are burnt away by the laser. (HSIB maternity team)

### **Laxative**

(a medicine given to treat constipation)

### **Laryngoscope**

(a tongue depressor with a light source used to examine a mother's/baby's airway)

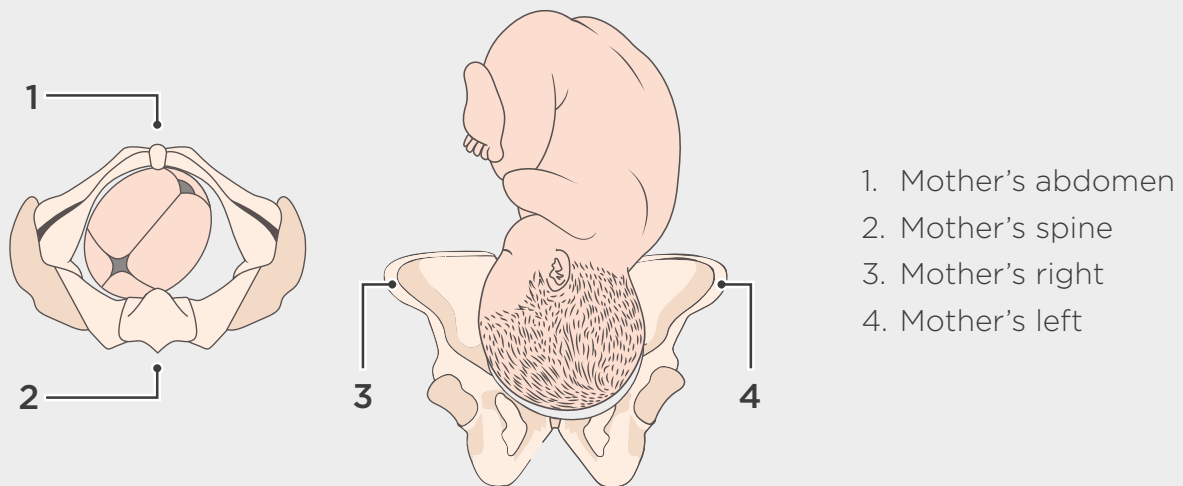
### **Left iliac fossa**

(an area of a mother's/baby's lower abdomen on her/their left side)

### **Leucocytes**

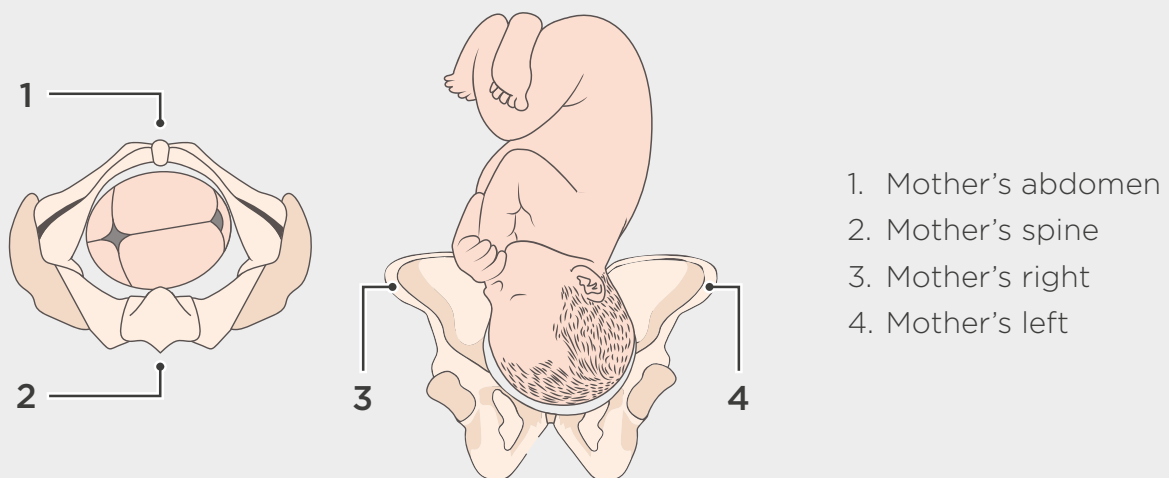
Leucocytes are white blood cells that fight infection in a mother's/baby's body. They are commonly identified in the urine of pregnant mothers. Whilst the presence of leucocytes can mean an infection is present, this is usually not the case. (HSIB maternity team)

## Left occipito anterior position



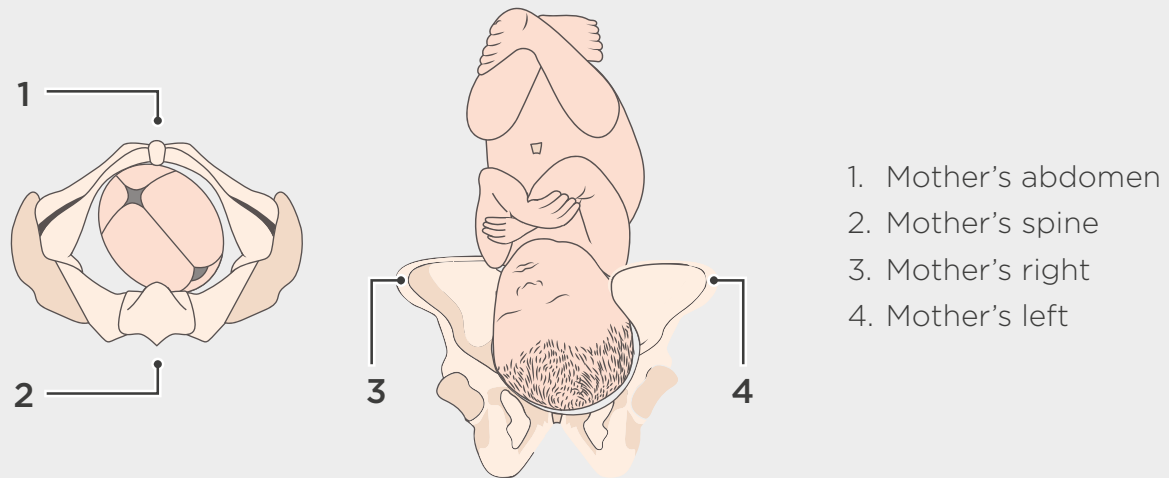
Left occipito anterior (LOA) is when a baby is head down and the back of a baby's head is against a mother's abdomen to her left side. (HSIB maternity team)

## Left occipito transverse position/Left occipito lateral position



Left occiput transverse (LOT)/left occiput lateral (LOL) is where a baby is head down and the back of a baby's head is against the mother's left side. (HSIB maternity team)

## Left occipito posterior position



Left occipito posterior (LOP) is where a baby is head down and the back of a baby's head is against the left side of a mother's back. (HSIB maternity team)

## Left sacro anterior position

Left sacro anterior (LSA) position is when a baby is bottom down with their back against a mother's abdomen to her left side. (HSIB maternity team)

## Left sacro posterior position

Left sacro posterior (LSP) position is where a baby is bottom down and the back of a baby's bottom is against the left side of a mother's back. (HSIB maternity team)

## Level of inpatient care

### Level 0

Mothers whose needs can be met through normal ward care in an acute hospital.

### Level 1

Mothers at risk of their condition deteriorating, or those recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the critical care team.

### Level 2

Mothers requiring more detailed observation or intervention including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care.

### Level 3

Mothers requiring advanced respiratory support alone or basic respiratory support together with support of at least two organ systems. This level includes all complex mothers requiring support for multi-organ failure. (HSIB maternity team)

### Levothyroxine

(a medicine used to treat an underactive thyroid gland)

### Lichen sclerosis

Lichen sclerosis is a skin condition which may cause itchy white patches on a mother's/baby's skin. There is no cure; treatment may relieve the symptoms.

Further information from: **NHS - Lichen sclerosis**

### Limb-girdle muscular dystrophy

Limb-girdle muscular dystrophy (LGMD) refers to a number of related inherited conditions that cause weakness in the big muscle groups at the base of a mother's arms and legs (around the shoulders and hips). LGMD may also cause weakening of the heart muscle and cause heart palpitations or irregular heartbeats.

Further information from: **NHS - Muscular dystrophy - NHS**

### Liquor volume

(the amount of amniotic fluid around a baby, measured during an ultrasound scan)

### Lithotomy

(when a mother's legs are elevated and supported in rests)

### Liver blood tests

Liver blood tests, also known as liver function tests, look at how well the liver is functioning and can indicate whether there is any damage or inflammation inside the liver.

Further information from: **British Liver Trust - liver blood tests**

### Loading dose

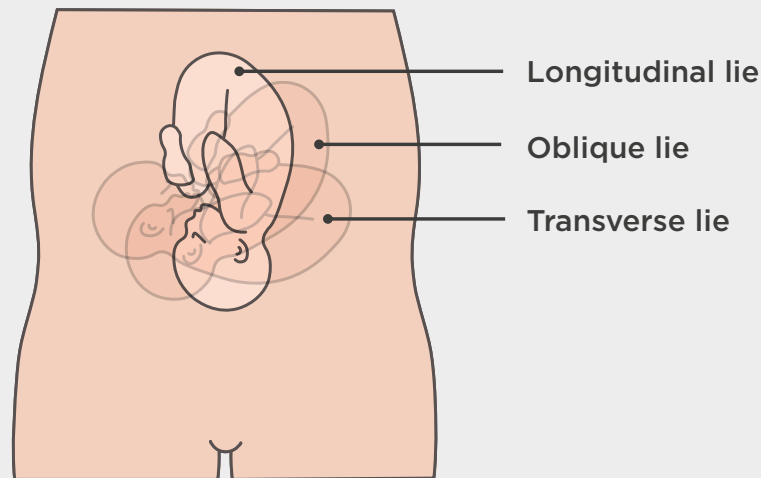
A loading dose is an initial, higher, dose of a medicine that may be given to a mother/baby at the beginning of a course of treatment before reducing to a lower maintenance dose. (HSIB maternity team)

### Long chain fatty acid disorder

A long chain fatty acid disorder is a condition, present from birth, where the proteins (enzymes) needed to break down a mother's/baby's long chain fatty acids (energy source) are missing or not working as expected. This means a mother/baby may not be able to break down fats for energy as effectively. (HSIB maternity team)



## Longitudinal lie



A longitudinal lie is where a baby is lying in a head or bottom first presentation in the womb. (HSIB maternity team)

### Long QT syndrome

Long QT syndrome is an inherited condition, present from birth, which affects how a mother's/baby's heart beats. The heart may beat more slowly, or quickly, which can cause a mother/baby to faint or have a seizure. The heart usually returns to a normal rhythm by itself. When this does not happen, treatment with a defibrillator may be needed to shock the heart back in to a normal rhythm. Long QT syndrome can be life threatening if it causes the heart to beat abnormally and it is not treated quickly.

Further information from: **NHS - long QT syndrome**

### Loop reader

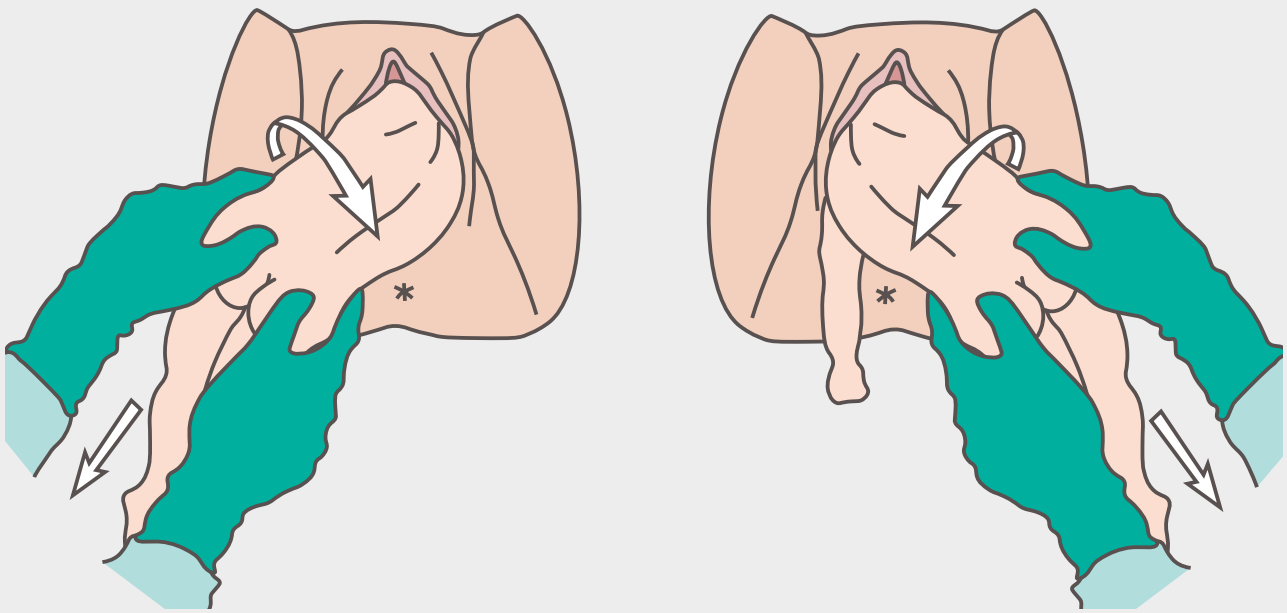
A loop reader is a small device, implanted under the skin of a mother's chest, that records the electrical signal from her heart over a period of time. (HSIB maternity team)

### Lotus birth

This is the practice of leaving the umbilical cord uncut after childbirth so that a baby is left attached to the placenta, until the cord naturally separates at the umbilicus. This usually occurs 3-10 days after birth. (HSIB maternity team)



## Løvsett/Lovset manoeuvre



A technique used to deliver a baby's arms during breech birth. (HSIB maternity team)

### Low body mass index in pregnancy

A body mass index (BMI) of less than 18.5kg/m<sup>2</sup> suggests a mother is underweight and this may lead to additional complications in pregnancy. These complications include an increased chance of;

- miscarriage
- premature birth (when a baby is born before 37 weeks)
- a baby having a low birth weight
- gastroschisis (when a baby's stomach doesn't develop properly).

Further information from: **Tommys - low BMI in pregnancy**

### Low cardiac output

Low cardiac output describes when a mother's/baby's heart does not pump blood around her body sufficiently, to meet the demands of her body. (HSIB maternity team)

### Lower uterine segment

(the lower part of a mother's womb)

### Low lying placenta

The placenta develops along with a baby in the uterus (womb) during pregnancy. It connects the baby to the mother's blood system and provides the baby with oxygen and nourishment. In some mothers, the placenta attaches low in the uterus and may be close to but not covering the cervix (entrance to the womb). This

attachment can be seen on ultrasound scans, after 16 weeks, and is called a low-lying placenta. In most cases, as the uterus enlarges, the placenta moves upwards. Further information from: **RCOG - low lying placenta**

### **Low molecular weight heparin**

(a medicine given to a mother to prevent blood clots forming).

### **Lown Ganong Levine syndrome**

Lown Ganong Levine (LGL) syndrome is a heart condition which causes a mother's heart to beat abnormally fast for periods of time. It is caused by an extra electrical pathway in a mother's heart. (HSIB maternity team)

### **Lumbar puncture**

A lumbar puncture is a test to take a sample of fluid from a mother's/baby's spinal cord.

Further information from: **NHS - lumbar puncture**

### **Lumbar puncture (maternal)**

A lumbar puncture (LP) is a medical test during which a doctor or specialist nurse inserts a thin needle between the bones in a mother's lower spine.

A lumbar puncture may be used to:

- take a sample of fluid from a mother's spinal cord (cerebrospinal fluid) or measure the fluid's pressure – to help diagnose a condition
- inject medicine – such as painkillers, antibiotics or chemotherapy
- inject a spinal anaesthetic – to numb the lower part of a mother's body before an operation
- remove some fluid to reduce pressure in a mother's skull or spine

Further information from: **NHS - lumbar puncture**

### **Lung consolidation**

Lung consolidation occurs when the air, that usually fills the small airways of a mother's/baby's lungs, is replaced with a different substance such as amniotic fluid, (remove if in a mother) pus or blood. (HSIB maternity team)

### **Lymphoma**

Lymphoma is a type of blood cancer affecting a mother's lymphocytes.

Lymphocytes are a type of white blood cell that help the body to fight infection.

When a mother's lymphocytes grow out of control, they may become cancerous and collect in groups around the body. These 'abnormal' lymphocytes may be found anywhere; they are commonly found in lymph nodes which are located in a mother's groin, armpits and neck. (HSIB maternity team)

# M

## **Magnesium sulphate (for neuroprotection of a baby's brain)**

A medicine given to mothers, to protect the brain of babies at risk of being born prematurely. (HSIB maternity team)

## **Magnesium sulphate (for pre-eclampsia)**

Magnesium sulphate is a medicine given intravenously to mothers who are at risk of developing seizures caused by eclampsia. It is only given if there is an intention to birth the baby. (HSIB maternity team)

## **Magnetic resonance imaging**

Magnetic resonance imaging (MRI) is a type of scan that uses strong magnetic fields and radio waves to produce detailed images of the inside of the body. Brain MRI may be performed on a baby suspected of having brain damage due to lack of oxygen, bleeding, structural and other abnormalities. There are no risks of MRI although as babies need to lie still, sedation may be necessary for the procedure. (HSIB maternity team)

## **Magnetic resonance imaging during pregnancy**

Magnetic resonance imaging (MRI) is a type of scan that uses strong magnetic fields and radio waves to produce detailed images of the inside of the body. In pregnancy, an MRI may be performed to closely examine any structural abnormalities in a baby which have been identified on an ultrasound scan. (HSIB maternity team)

## **Magnetic resonance imaging terminology (please copy and paste as required to support readability of MRI terms in your report)**

**Bilateral** (both sides)

**Tentorial** (part of the brain)

**Subdural haematomas** (collection of blood under one of the coverings of the brain)

**Posterior parafalcine** (part of the brain)

**Cavum septum pellucidum** (part of the brain)

**Congenital** (present at birth)

**Grey/white matter** (different types of brain tissue) differentiation

**Intraventricular** (within the fluid filled spaces of the brain)

**Haemorrhage** (bleeding)

**Germinal matrix** (part of the brain)

**Asphyxia** (brain injury caused by an interruption in oxygen supply).

**T2** (an image taken of a baby's brain during an MRI scan which may assist in the diagnosis of HIE)

**Fluid attenuated inversion recovery (FLAIR) change** (a technique used during an MRI scan to detect changes in the brain which assist in the diagnosis of HIE)

**Peri-trigonal white matter** (an area of a brain that may appear bright on an MRI scan)

**T1 hyperintensity** (an image pattern of a baby's brain which may be seen on a baby's MRI scan and may help in diagnosis of HIE)

**Posterior limb of the internal capsule (PLIC)** (an area of a baby's brain which may be affected in the presence of HIE) (HSIB maternity team)

### **Magnetic resonance spectroscopy**

Magnetic resonance spectroscopy (MRS) of the brain, sometimes called nuclear magnetic resonance (NMR) spectroscopy, is an analytical technique that can be used to study metabolic changes within a mother's/baby's brain. It may be done with magnetic resonance imaging (MRI), to provide a more detailed clinical picture of a specific condition. (HSIB maternity team)

### **Magnetic resonance venography**

Magnetic resonance venography (MRV) is a non-invasive technique used to look at veins in the body. (HSIB maternity team)

### **Major haemorrhage protocol**

Major haemorrhage protocol is an agreed multidisciplinary team approach to major haemorrhage with the involvement of medical, anaesthetic and surgical staff of sufficient seniority and experience, underpinned by clear lines of communication between clinicians and the transfusion laboratory. (HSIB maternity team)

### **Malignant hyperthermia**

Malignant hyperthermia (MH) is a rare genetic condition, which may cause a dangerous rise in a mother's/baby's body temperature in response to some anaesthetic medicines. Without prompt treatment, a mother may experience multiple organ failure and blood clotting problems. These complications may be life-threatening.

Further information from: **Royal College of Anaesthetists -**

### **Malignant hyperthermia**

### **Melaena**

Melaena describes dark sticky faeces containing blood. Melaena may occur as a result of bleeding from within a mother's/baby's bowel. (HSIB maternity team)

### **Manchester triage system**

Manchester triage system (MTS) is a tool that may be used by clinicians to support their decision making, when assessing the clinical risk to a mother/baby. (HSIB maternity team)

### **Manual displacement of the uterus**

(moving a mother's uterus towards one side)



### **Manual removal of placenta**

Manual removal of placenta (MROP) is when the placenta is detached from a mother's uterus by hand following a vaginal birth. It is usually carried out in an operating theatre under anaesthesia. (HSIB maternity team)

### **Manual rotation of the fetal head prior to vaginal birth**

Manual rotation may be performed to turn a baby's head to the occipito-anterior (facing backwards) position. This may be from either the occipito-transverse (facing sideways) or occipito-posterior (facing forwards) positions. Manual rotation involves the use of the clinician's hand or fingers to rotate a baby's head. It may take two or three contractions to be performed and the position is commonly held for two contractions. (RCOG Robust)

### **Mass effect**

Mass effect occurs when the pressure within the head (intracranial pressure) rises and compresses the soft tissues of the brain. (HSIB maternity team)

### **Massive perivillous fibrin deposition**

Massive perivillous fibrin deposition is a condition when perivillous fibrin deposition covers most of the placental disc. It is associated with higher rates of fetal growth restriction and other complications for a baby. It may be a cause of stillbirth (remove if not required) (HSIB maternity team)

### **Maternal vascular malperfusion**

Maternal vascular malperfusion can be seen on histological (under a microscope) examination of the placenta. It is suggestive of poor placental function and is associated with pre-eclampsia, clotting disorders and diabetes. (HSIB maternity team)

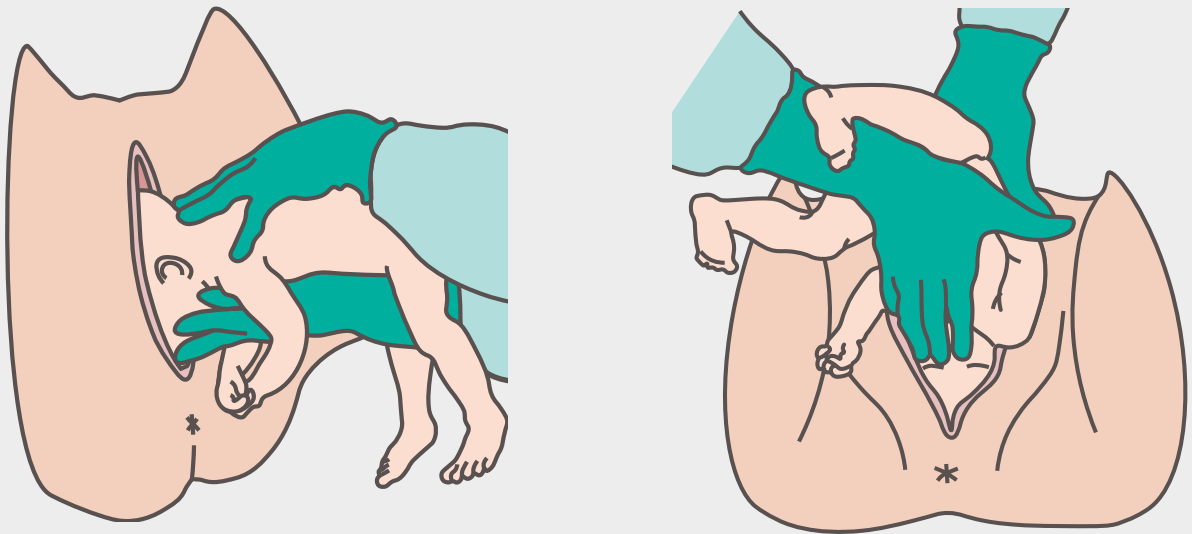
### **Maturity onset diabetes of the young**

Maturity onset diabetes of the young (MODY), is a rare, and usually less severe form of diabetes caused by a change in a mother's genetic material. It is estimated that one to two out of 100 people living with diabetes may have MODY. A mother with MODY may be misdiagnosed with type 1 or type 2 diabetes. Diagnosis can be made by a blood test. Mothers with MODY may be at a lower chance of complications in pregnancy than mothers with other types of diabetes. (HSIB maternity team)

### **Mauriceau-Cronk manoeuvre**

An alternative manoeuvre to aid the birth of a baby's head in an upright breech birth. (HSIB maternity team)

## Mauriceau-Smellie-Veit



A manoeuvre to birth a baby's head in a breech birth. (HSIB maternity team)

## McCune Albright syndrome

McCune Albright syndrome is a rare genetic disorder caused by a change to a specific gene of a mother/baby. McCune Albright syndrome may affect the skin, bones and endocrine (hormone) system causing changes in the growth and formation of bones. (HSIB maternity team)

## McRoberts' position



A mother is laid flat, and pillows are removed from under her back. With an assistant on either side, a mother's legs are hyperflexed against her abdomen so that her knees are up towards her ears. McRoberts' position increases the internal space within a mother's pelvis for a baby, and straightens the sacrum

(tailbone) giving a baby room to rotate and birth. It has a low rate of complication and is one of the least invasive manoeuvres and therefore it is recommended to be used first.

(PRactical Obstetric Multi-Professional Training (PROMPT) 2018)

### **McRoberts' position during a vaginal breech birth**

A mother is laid flat, and pillows are removed from under her back. With an assistant on either side, a mother's legs are hyperflexed against her abdomen so that her knees are up towards her ears. The McRoberts' position increases the internal space within a mother's pelvis for a baby and straightens the sacrum (tailbone) giving a baby room to rotate and be born. This position can be used with suprapubic pressure to assist the birth of a baby's head during a vaginal breech birth. (HSIB maternity team)

### **Mean arterial pressure**

Mean arterial pressure (MAP) describes the average pressure of blood in a mother's/baby's blood vessels during each beat of the heart. MAP which is either higher or lower than expected can affect blood flow in a mother's/baby's blood vessels. (HSIB maternity team)

### **Mechanical cardiac compression device**

A mechanical device used to deliver high quality cardiac compressions to a mother in cardiac arrest. (HSIB maternity team)

### **Mechanical circulatory support**

A mechanical device used to deliver cardiac compressions to a mother in cardiac arrest. Use of a machine makes the delivered cardiac compressions continuous and consistent. (HSIB maternity team)

### **Mechanical thrombectomy**

Mechanical thrombectomy is a minimally-invasive procedure in which an interventional radiologist uses specialised equipment to remove a clot from a mother's blood vessel. Using fluoroscopy, or continuous x-ray, a doctor guides instruments through a mother's blood vessel to the clot in order to remove it. (HSIB maternity team)

### **Meconium**

Meconium is a baby's first bowel motion (poo), usually passed after birth, and formed mainly of mucus and bile. If a baby passes meconium before they are born it may be found in the amniotic fluid (waters that surround a baby ).

Approximately 15-20% of babies have meconium-stained fluid in labour. In babies born after their due date, the presence of meconium, may indicate that their gut is mature. It can also indicate that a baby's wellbeing has been compromised and a full risk assessment and discussion with the mother should be completed.

Meconium in the amniotic fluid can vary from light to heavy staining. Significant meconium may be dark green or black in colour, thick or lumpy. The appearance



of any meconium should be considered as part of the overall clinical assessment along with any other risk factors and considering the use of CTG.

If significant meconium is present, ensure that healthcare professionals trained in advanced neonatal life support are readily available for the birth

Further information from: **NICE - Intrapartum care; NICE - Fetal monitoring in labour**

**Or when specific to neonatal care, use definition below:**

### **Meconium**

Meconium, a dark green substance, is a newborn's first stool. Newborns expel meconium almost always in the first 24 hours of life. (HSIB maternity team)

### **For meconium in the case of an intrapartum stillbirth**

### **Meconium**

Meconium is a baby's first bowel motion, formed mainly of mucus and bile. It is usually passed after birth and can sometimes be found in the amniotic fluid ('waters') during birth. Passing meconium before the birth may indicate that a baby's wellbeing has been compromised. In babies born after their due date it can simply indicate that their gut is mature. Approximately 15-20% of babies have meconium-stained fluid in labour. For the majority of those, it does not cause any problems. Significant meconium is defined as dark green or black amniotic fluid that is thick or tenacious, or any meconium-stained amniotic fluid containing lumps of meconium. Non-significant meconium is defined as a thin yellow/green tinged amniotic fluid, with no particles of meconium. (NICE, 2022).

### **Meconium aspiration syndrome**

On occasion a baby can breathe in meconium in the womb, or around the time of birth. This can cause a condition known as meconium aspiration syndrome (MAS). This is rare (affecting 1-3% of babies) and can cause serious breathing problems (infant respiratory distress syndrome). In addition, it can cause a condition called persistent pulmonary hypertension of the newborn. (HSIB maternity team)

### **Meconium associated vascular myonecrosis**

Meconium associated vascular myonecrosis is the deterioration and death of cells of the umbilical cord and placenta. It is caused by prolonged exposure to meconium in a mother's womb. (HSIB maternity team)

### **Meconium Ileus**

Meconium ileus is blockage of the small intestine in a newborn caused by excessively thick intestinal content (meconium).

Meconium ileus is most often an early sign of cystic fibrosis which causes intestinal secretions to be abnormally thick and sticky, and the secretions stick to the lining of the intestine causing an obstruction of the small intestine. These extremely sticky secretions are the first indication of illness in 10 to 20% of



children with cystic fibrosis.

- Meconium ileus can be the result of cystic fibrosis.
- Typically, newborns vomit, have an enlarged abdomen, and do not have a bowel movement during the first several days of life.
- The diagnosis is based on symptoms and x-ray results.
- The blockage is treated with enemas and/or surgery.
- Meconium ileus is sometimes complicated by
  - Perforation of the small intestine
  - Twisting of the intestine on itself

Further information from: **MSD Manuals - meconium ileus**

## Meconium peritonitis

During pregnancy, meconium is found in a baby's bowel. Rarely there may be a leakage of meconium into a baby's a peritoneal cavity (where the stomach, liver, parts of the duodenum and bowel are located). The leakage of meconium may cause inflammation (swelling) of the organs. (HSIB maternity team)

## Mediastinal mass

The mediastinum is the area in the middle of a mother's/baby's chest, that lies between their breastbone and spine (backbone). A mediastinal mass is a tumour found in this region of the body. (HSIB maternity team)

## Medical examiner

A medical examiner is a medical doctor trained in the legal and clinical elements of the process of certifying a person's death. The role of a medical examiner is to:

- agree the proposed cause of death and accuracy of the medical certificate of cause of death with the doctor completing it
- discuss the cause of death with bereaved people
- act as a medical advice resource for the local coroner
- identify cases for further review under local mortality arrangements and contribute to other clinical governance processes.

Further information from: **NHS England - the national medical examiner system**

## Medicines used in neonatal care (please delete as required)

- **dopamine** – to increase the strength of a baby's heart contractions
- **fentanyl** – to relieve a baby's pain and to sedate a baby
- **morphine** – to relieve a baby's pain and to sedate a baby
- **nitric oxide gas inhalation** – to dilate the blood vessels in a baby's lungs
- **pancuronium** – a long acting muscle relaxant
- **pancuronium and rocuronium** – a mixture of medicines to relax a baby's muscles given by infusion
- **parenteral nutrition** – a liquid nutrition given intravenously
- **phenobarbital** – to control a baby's seizures
- **suxamethonium** – to relax a baby's muscles
- **vecuronium** – to relax a baby's muscles

(HSIB maternity team)



## Medicines used in neonatal resuscitation

**Adrenaline** - Adrenaline is a medicine which may be used during a baby's resuscitation. Adrenaline works most effectively when given into a baby's blood vessel (intravenous) or bone (intraosseous).

**Sodium bicarbonate** - Sodium bicarbonate is a medicine used to treat acidosis in response to low oxygen levels in a baby's body during resuscitation.

**Dextrose** - Dextrose is a sugar-based medicine used to provide energy to a baby during resuscitation.

Further information from: **Resuscitation Council (UK) - Guidelines for resuscitation and support of transition of babies at birth**

## Membrane sweep

A membrane, or cervical sweep, involves having a vaginal (internal) examination that separates the membranes of the amniotic sac surrounding a baby from the cervix (neck of the womb). This separation releases hormones (prostaglandins) that may trigger natural labour. It is not uncommon to experience some discomfort or slight bleeding afterwards.

Further information from: **NHS - induction of labour**

## Meningitis

Meningitis is an infection of the protective membranes that surround a mother's/ baby's brain and spinal cord (meninges).

Further information from: **NHS - meningitis**

## Meningoencephalitis

Meningoencephalitis is an inflammation of a mother's/baby's brain and spinal cord (meninges) usually caused by a viral infection. (HSIB maternity team)

## Mental Capacity Act

The Mental Capacity Act (MCA) is designed to protect and empower people who may not have the mental capacity to make their own decisions about their care and treatment. It applies to people aged 16 and over. It covers decisions about day-to-day things and serious life-changing decisions.

Examples of people who may not have capacity include those with:

- dementia
- a severe learning disability
- a brain injury
- a mental health illness
- stroke
- unconsciousness caused by an anaesthetic or sudden accident

While a person may have one of these health conditions, it does not necessarily mean they do not have the capacity to make a specific decision.

Further information from: **NHS - Mental Capacity Act**

## Metabolic acidosis

(a high level of acid in a mother's/baby's blood)

## **Metabolic disease**

Metabolic disorders affect metabolism. Metabolism is the term used for all the chemical reactions that go on inside the body. A metabolic disease may lead to a build-up of toxic chemicals in a mother's/baby's body. In some cases, the disorder can be managed by a special diet. In other cases, it may be incompatible with life (delete if not required) (HSIB maternity team)

## **Metaraminol**

(a medicine given to treat low blood pressure)

## **Methadone**

Methadone is a medicine that may be used to help a mother with heroin dependence, to stop taking heroin. Methadone reduces heroin withdrawal symptoms which include shaking, shivering and flu-like symptoms. It can also stop cravings.

Further information from: **NHS - methadone**

## **Methicillin-resistant staphylococcus aureus**

Methicillin-resistant staphylococcus aureus (MRSA) is a type of bacteria that is resistant to several widely used antibiotics. This means infections with MRSA can be harder to treat than other bacterial infections. MRSA lives harmlessly on the skin of around 1 in 30 people, usually in the nose, armpits, groin or buttocks. This is known as colonisation or carrying MRSA.

Further information from: **NHS - MRSA**

## **Methylene blue (in critical care)**

Methylene blue is a medication that may be used to increase a mother's blood pressure when they are critically unwell. (HSIB maternity team)

## **Methylene blue test**

A methylene blue test may be used if a bladder injury is suspected during an operation. Methylene blue is a dye which, when diluted, can be used to fill a mother's bladder through a catheter to identify any leaks or injuries. (HSIB maternity team)

## **Metformin (a medicine used to treat diabetes)**

Microdeletions within chromosome 17 at point 13.3

A chromosome microdeletion is a condition present from birth, where a part of a mother's/baby's chromosome is missing. Microdeletions within chromosome 17 at point 13.3 may cause conditions associated with developmental delay, difficulties understanding and processing information and seizures. (HSIB maternity team)

## **Microdeletions within chromosome 13 at point 21**

A chromosome microdeletion is a condition present from birth, where a part of a mother's/baby's chromosome is missing. Microdeletions within chromosome 13 at point 21 may affect growth and cause developmental delay. (HSIB maternity team)



## Micrognathia

(a condition where a baby is born with a very small lower jaw)

## Microscopy, culture and sensitivity analysis (delete highlighted section if not required)

Microscopy, culture and sensitivity (MC&S) analysis is used to detect infection in a mother/baby. A sample of blood, urine, faeces, sputum, pus or a swab from a wound or body cavity is sent to a laboratory. The samples are examined under a microscope and spread on a special growing surface. If bacteria are present, they will grow and multiply (culture). Antibiotics are tested against these cultures to see which are the most effective at treating them. If a urine sample contains more than three types of bacteria this may indicate a sample is contaminated with bacteria from a mother's/baby's vagina, bladder opening or back passage. This is called mixed growth. (HSIB maternity team)

## Micturition syncope

(fainting when passing urine)

## Midazolam

Midazolam belongs to a class of medicines called benzodiazepines. It is a short acting medicine that can be used to reduce anxiety and provide sedation. (HSIB maternity team)

## Middle cerebral artery

The middle cerebral artery (MCA) is a blood vessel that supplies large parts of a mother/baby's brain. (HSIB maternity team)

## Mid pregnancy anomaly ultrasound scan

The mid-pregnancy anomaly ultrasound scan (USS) looks for some physical abnormalities in a baby. The USS only looks for these problems and can't find everything that might be wrong. It looks in detail at a baby's bones, heart, brain, skin covering the spinal cord, face, kidneys and abdomen. It allows the sonographer or doctor to look specifically for 11 conditions, some of which are very rare.

Further information from: **NHS - anomaly scan**

## Midstream specimen of urine

(a test for a urine infection)

## Midwives' exemptions

Midwives are independent practitioners and can give a range of medicines and intravenous fluids without a medical prescription; these are approved by the Nursing and Midwifery Council (NMC) and are known as midwives' exemptions medicines. This group of medicines includes some types of pain relief and other medications that are usually available over the counter to the public. (HSIB maternity team)



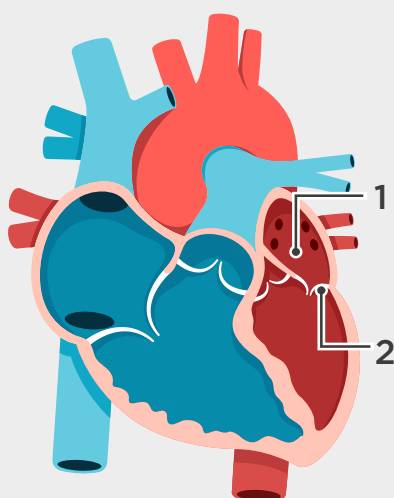
## Missed miscarriage

A miscarriage is the loss of a pregnancy before 24 weeks; a miscarriage commonly presents with abdominal pain and vaginal bleeding. Sometimes, a miscarriage is diagnosed when a mother attends for a routine ultrasound scan of her pregnancy and her baby is found not to have a heart beat or is smaller than expected. This is called a missed or delayed miscarriage.

Further information from: **NHS - miscarriage**

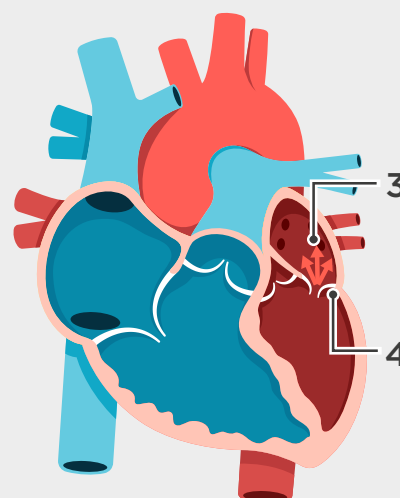
## Mitral regurgitation

Normal heart



1. Left atrium
2. Mitral valve
3. Blood leaking back into left atrium
4. Mitral valve that does not close properly

Heart with mitral valve regurgitation



Mitral regurgitation describes an abnormal flow back into the left atrium (pumping chamber) of a mother's heart during a heart beat. This can be caused by the expected changes a mother's body undergoes during pregnancy and may not cause symptoms, or illness. (HSIB maternity team)

## Mitral valve

(a flap in a mother's/baby's heart that stops blood flowing the wrong way)

## Modified early obstetric/maternity early warning score

The modified early obstetric/maternity early warning score (MEOWS/MEWS) is a tool to detect and respond to mothers who are at risk of their condition worsening. Vital signs such as temperature, blood pressure, heart rate, respiration rate etc. are recorded and scored on an observation chart. The resulting total score indicates the appropriate action to take. (HSIB maternity team)

## Molar pregnancy

A molar pregnancy is a condition where there is a problem with a fertilised egg and this results in a baby and placenta not developing in the usual way. A molar pregnancy is very rare and will not be able to survive. There are two types of molar pregnancy;

- **A complete molar pregnancy** – where the cells grow and there is no sign of a baby
- **A partial molar pregnancy** – where there may be early signs of a baby and they cannot develop or survive.

Further information from: **NHS - Molar pregnancy**

## Molybdenum cofactor deficiency of complementation group B

Molybdenum cofactor (MoCo) deficiency of complementation group B is a condition, present from birth, where a baby's brain does not work in the usual way (encephalopathy). A baby with MoCo deficiency of complementation group B may appear to have normal brain function at birth. Within a week or two they may develop feeding and breathing problems and have seizures that do not improve when treated with medicine. (HSIB maternity team)

## Monoclonal antibody treatment

Antibodies are proteins that a mother's/baby's immune system naturally makes, in response to an infection. Monoclonal antibodies are made in a laboratory and adapted to interact with a specific illness or infection. Monoclonal antibody treatment is usually given to a mother/baby intravenously (IV) and supports their body to fight the infection.

When a mother/baby receives monoclonal antibody treatment for COVID-19, the antibody works by attaching to the virus and stopping it from entering the cells of the body. (HSIB maternity team)

## Montgomery ruling

The 2015 UK Supreme Court decision on Montgomery vs. NHS Lanarkshire has significant implications for clinician-patient communications, information sharing and informed consent. The ruling makes it clear that consent for any intervention must include an information sharing process which ensures the patient is aware of all options and they are supported to make an informed choice.

Further information from: **RCOG - Montgomery ruling**

## Morning sickness

(nausea and vomiting, common in early pregnancy)

## Moro reflex

The Moro reflex is a reaction present at birth and can be seen for several months. When it happens, a baby will spread out their arms, before quickly pulling them back towards their body. They may also cry. The presence of the Moro reflex is used in the assessment a baby's neurological function. (HSIB maternity team)

## **Morphine**

(an opiate based pain-relieving medicine)

## **Motion artifact**

(movement of a patient during an imaging procedure making diagnosis difficult)

## **Motivational interviewing**

Motivational interviewing is a technique used to support behaviour change. It is based on the following assumptions;

- How we speak to people is as important as what we say
- Being heard and understood is an important part of the process of change
- The person who has the problem is the person who has the answer to solving it
- People change their behaviour when they feel ready, not when they are told to do so
- The solutions people find for themselves are the most enduring and effective

Motivational interviewing techniques have been shown to be successful in behaviour modification within healthcare. (HSIB maternity team)

## **Moulding**

(when the bones of a baby's skull temporarily overlap to fit through the birth canal)

## **Moxibustion**

Moxibustion is a type of traditional Chinese medicine where a herb (artemisia vulgaris) is burned near to a mother's skin at the tip of her fifth toe. Moxibustion may be used as a complimentary therapy in pregnancy to turn a baby from a breech (bottom first) to cephalic (head first) presentation. (HSIB maternity team)

## **Multicystic dysplastic kidney**

A multicystic dysplastic kidney (MCDK) is an anomaly present at birth, where a baby's kidney has not developed as expected in the womb. It is one of the most common kidney anomalies found on a mother's mid pregnancy anomaly ultrasound scan. The condition has no treatment and if both kidneys are affected the condition may be life limiting. (HSIB maternity team)

## **Multi-organ failure**

Multi-organ failure is when at least two of the following organs of a mother/baby stop working: liver, kidneys, lungs. It is a life-threatening condition and is usually the result of major trauma, or severe infections such as sepsis or pneumonia. (HSIB maternity team)

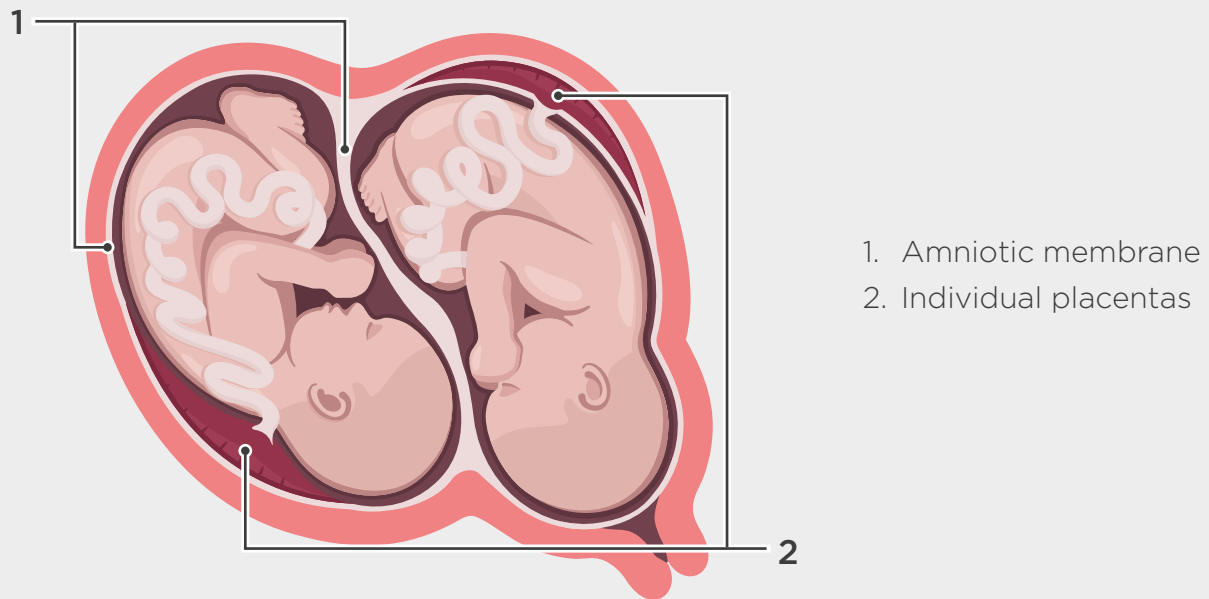
## **Multiple pregnancy**

A twin, triplet, or higher-order pregnancy (four or more babies) is called multiple pregnancy. Early in a multiple pregnancy, an ultrasound exam is done to find out whether each baby has its own chorion and amniotic sac. Multiple pregnancies require obstetric led care due to the increased chance of complications in pregnancy and birth. There are three types of twins:



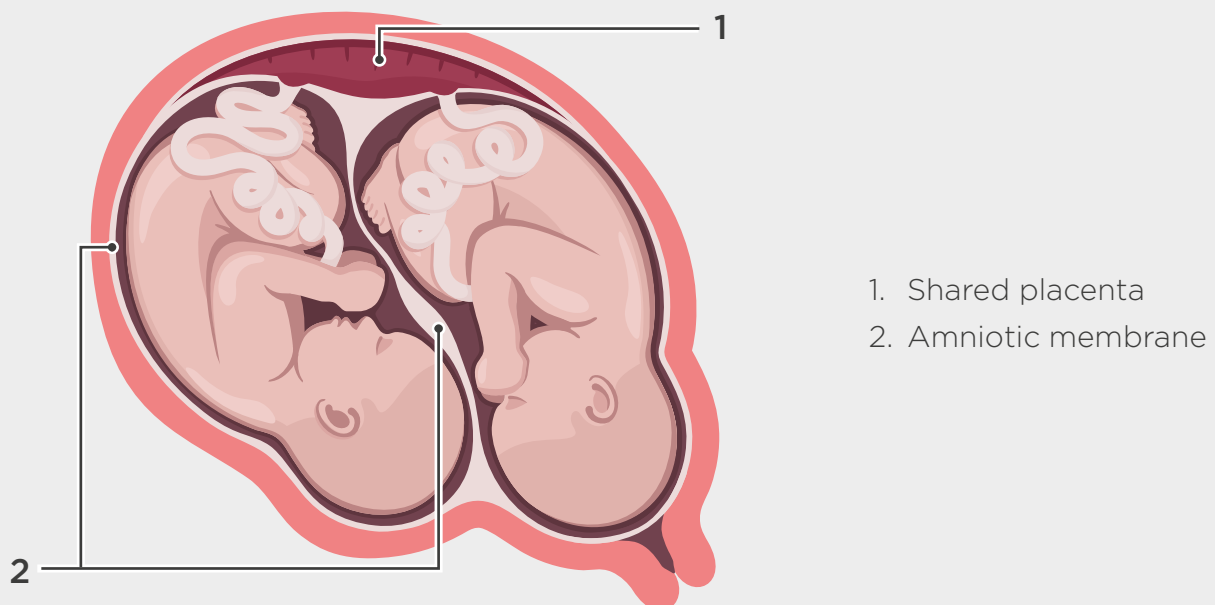


## Dichorionic-diamniotic



Twins who have their own chorions and amniotic sacs. They typically do not share a placenta and can be non-identical or identical.  
(Illustration based on an image from Twins Trust)

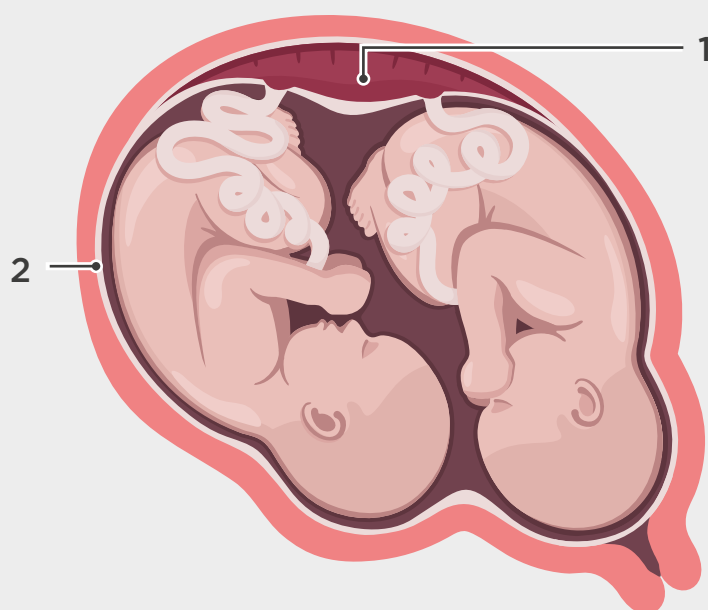
## Monochorionic-diamniotic



Twins who share a chorion and have separate amniotic sacs. They share a placenta and are identical.  
(Illustration based on an image from Twins Trust)



## Monochorionic-monoamniotic



1. Shared placenta
2. Amniotic membrane

Twins who share one chorion and one amniotic sac. They share a placenta and are identical.

(Illustration based on an image from Twins Trust)

## Multidisciplinary team

Multidisciplinary team describes a group of staff from more than one clinical speciality/profession working together to manage a mother's/baby's care. (HSIB maternity team)

## Multiple sclerosis

Multiple sclerosis (MS) is a condition that can affect a mother's brain and spinal cord, causing a wide range of potential symptoms, including problems with vision, arm or leg movement, sensation or balance. (HSIB maternity team)

## Multip's os

A multip's os describes the cervix of a mother who has given birth previously and is not in established labour. The cervix may feel slightly open during vaginal examination. (HSIB maternity team)

## Myocarditis

Myocarditis is a condition where a mother's/baby's heart muscle (myocardium) is inflamed (swollen). The cause of myocarditis is not always known, it is usually caused by:

- a viral, bacterial, or fungal infection
- a chest infection
- an auto immune disease (when a mother's own immune system attacks her body).

Further information from: **British Heart Foundation - Myocarditis**

## Myomectomy

Myomectomy, sometimes called a fibroidectomy, is a term used to describe a surgical procedure to remove fibroids (non-cancerous growths) from a mother's womb.

Further information from: **NHS - fibroids**

## Myotonic dystrophy

Myotonic dystrophy is a genetic disorder that may impair a mother's/baby's muscle function. The condition affects muscles and other bodily organs. Myotonic dystrophy causes muscles to become weaker and smaller. (HSIB maternity team)

# N

## **N-acetylcysteine**

(a medicine used to treat the effects of paracetamol overdose) or (a medicine used in the management of severe liver damage) or (a medicine used to treat excess mucous in cystic fibrosis or asthma)

## **Naloxone**

(a medicine which may be given to a mother/baby to reverse the effect of opioids on breathing.)

## **Narrow pubic arch**

A mother's pubic arch is in the centre of her pelvis. In some mothers this may be narrow and may affect the passage of a baby through the birth canal. (HSIB maternity team)

## **Nasal cannula**

A nasal cannula is a lightweight tube which splits into two prongs at one end. The prongs are placed in a mother's nostrils and a mixture of air and oxygen can be given. (HSIB maternity team)

## **Nasogastric tube**

A nasogastric (NG) tube is a thin plastic tube that goes through the nose to a mother/baby's stomach. This may be done to feed a person, or to remove their stomach contents. (HSIB maternity team)

## **Nasojejunal tube**

A nasojejunal (NJ) tube is a thin plastic feeding tube which goes through a mother's/baby's nose into the jejunum, a part of the small intestine. (HSIB maternity team)

## **National early warning score version 2**

The national early warning score version 2 (NEWS2) is a scoring system in which a score is allocated to physiological measurements, already recorded in routine practice, when patients present to, or are being monitored in hospital. A score of five or more is a key threshold that should trigger an urgent clinical review. Six simple physiological parameters form the basis of the scoring system:

- Respiration rate
- Oxygen saturation
- Systolic blood pressure
- Pulse rate
- Temperature
- Level of consciousness or new confusion.

It is not specific to pregnancy or the postnatal period. (HSIB maternity team)



## **National Institute of Health stroke scale**

The National Institute of Health (NIH) stroke scale is a tool that may be used by healthcare providers to measure and record the level of impairment caused by a stroke. (HSIB maternity team)

## **Near patient coagulation testing**

Near patient coagulation testing is a blood test to confirm how well a mother's blood is clotting performed at or near to her bedside. (HSIB maternity team)

## **Nebuliser**

A nebuliser is a device that turns a saline solution (a mixture of water and salt) into a mist, which a mother then breathes in through a facemask or mouthpiece. Medications may be added to this solution. (HSIB maternity team)

## **Necrotising chorioamnionitis**

(the most severe infection of the membranes)

## **Necrotising enterocolitis**

Necrotising enterocolitis (NEC) is a serious illness in which the tissues of a baby's intestines become inflamed and start to die. This may lead to a perforation (hole) forming, which allows the contents of the intestine to leak into a baby's abdomen. NEC can cause a serious infection. It may be treated by resting the bowel and feeding a baby intravenously and treating any infections with antibiotics. In some babies surgery may be required.

Further information from: **GOSH - necrotising enterocolitis**

## **Necrotising funisitis**

Necrotising funisitis is a condition where there is severe inflammation of the umbilical cord, where necrotic (dead) tissue may be seen on the external surface of the cord and the Wharton's jelly (a jelly like substance within the cord which supports and protects the internal blood vessels). (HSIB maternity team)

## **Needle phobia**

When a mother has an overwhelming fear of medical procedures that involve needles or injections. (HSIB maternity team)

## **Needle thoracentesis**

A needle thoracentesis is a procedure where a needle is inserted into the chest between the ribs to remove either air or fluid that has accumulated outside of the lungs. Removing this air or fluid may allow for improved lung expansion (HSIB maternity team).

## **Neonatal abstinence syndrome**

Many substances, which may cause dependency in mothers, such as alcohol, nicotine, caffeine, prescription medicines and recreational drugs, are able to cross the placenta and pass into an unborn baby's blood stream. After birth, the supply

of this substance is suddenly interrupted. This may cause a baby to experience symptoms of withdrawal. This is called neonatal abstinence syndrome (NAS). The symptoms may be very mild, or they may be more severe and require treatment to keep the baby comfortable. If a baby is considered at risk of NAS during pregnancy, their care will be planned by the neonatal team and may include observation and treatment. (HSIB maternity team)

### **Neonatal alert form**

A neonatal alert form is a method of communication used by clinicians when a baby has a suspected or diagnosed abnormality. A neonatal alert form may include detailed plans formulated by paediatric/neonatal consultants to notify practitioners providing subsequent care. (HSIB maternity team)

### **Neonatal cerebral infarction**

A neonatal cerebral infarction describes an interruption of the blood supply to part of a baby's brain, during the neonatal period, leading to damage of the cells and tissue in that area. (HSIB maternity team)

### **Neonatal early-onset sepsis calculator**

A neonatal early-onset sepsis calculator may be used by neonatal doctors and nurses to calculate the chance of early-onset (in first 72 hours of life) sepsis (severe infection) for a baby born after 34 weeks gestation.

Further information from: **KPR - neonatal early-onset sepsis calculator**

### **Neonatal/Paediatric early warning score**

The neonatal/paediatric early warning score is a tool to detect and respond to children and young people who are at risk of their condition worsening. Vital signs such as temperature, blood pressure, heart rate, respiration rate etc. are recorded and scored on an observation chart. The resulting total score indicates the appropriate action to take. (HSIB maternity team)

### **Neonatal stroke**

A neonatal stroke is a term used to describe when blood supply to part of a baby's brain is interrupted. There are two main types of neonatal stroke:

- **Ischaemic strokes**, which are caused by a blockage in the blood supply to a baby's brain.
- **Haemorrhagic strokes**, when there is bleeding from a blood vessel in a baby's brain.

(HSIB maternity team)

### **Neonatal transitional care**

Neonatal transitional care is offered when a baby needs extra monitoring or support. This care is carried out at a mother's bedside rather than in a neonatal unit ensuring a mother and baby are not unnecessarily separated. (HSIB maternity team)

## Neonatal units – definitions

| Unit                                | Description of level of care                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Special care unit (SCU)             | SCU provide special care (for example giving oxygen or treating babies with low sugars and low temperatures) for babies born at above 32 weeks. Other babies will be transferred out to other neonatal units.                                                                                                                                                                                                                                                                                                                                     |
| Local neonatal unit (LNU)           | LNU care for babies who need a higher level of medical and nursing support are cared for here. If the baby was or will be born after 27 weeks the mother may be transferred to an LNU. Care may include breathing support (ventilation); short term intensive care; continuous positive airway pressure (called CPAP); and feeding through a drip in their vein (called parenteral nutrition). Babies who need complex or longer-term intensive care may be transferred to a NICU, as LNUs are not staffed to provide longer-term intensive care. |
| Neonatal intensive care unit (NICU) | NICU care for babies with the highest need for support. Often these babies will have been born before 27 weeks or be very unwell after birth. Babies will be transferred to NICUs for cooling treatment after a difficult birth                                                                                                                                                                                                                                                                                                                   |

Further information from: **NHS - neonatal units**. Further information at:  
**Department of Health - Toolkit for high quality neonatal services**

## Nephrotic syndrome (glomerulonephritis)

Nephrotic syndrome, sometimes called glomerulonephritis, is a condition where there is damage to the tiny filters (glomeruli) in a mother's kidneys. It does not usually cause any symptoms and may be caused by a mother's immune system attacking healthy tissues. It is often diagnosed when blood or urine is tested for something else. Mild cases may be treated with dietary changes or medication. Sometimes long term kidney problems may occur.

Further information from: **NHS - glomerulonephritis**

## Neural tube defect

The neural tube is the structure that develops into a baby's brain and spinal cord, during early pregnancy. When the neural tube does not close, or develop as expected, the spinal cord and bones of the spine may not develop as expected. The most common neural tube defect is spina bifida.

Further information from: **NHS - Spina bifida**

## Neurofibromatosis

Neurofibromatosis is an inherited condition of a mother's/baby's nervous system where tumours form on a mother's/baby's nerve tissues. Neurofibromatosis affects the growth and development of nerve cell tissue. (HSIB maternity team)



## Neurogenic pulmonary oedema

Neurogenic pulmonary oedema occurs when fluid leaks from the blood into the lungs following a significant central nervous system insult. The fluid builds up and makes it difficult to breathe. (HSIB maternity team)

## Neurological

(relating to the nervous system)

## Neurosurgical

Neurosurgical relates to or involves surgery performed on a mother's/baby's nervous system (the brain and spinal cord). (HSIB maternity team)

## Neutropenia

Neutropenia is a condition where a mother/baby has fewer neutrophils than expected. Neutrophils are white blood cells that fight infections. Neutropenia can be associated with life threatening infection or chemotherapy treatment. (HSIB maternity team)

## Newborn early warning trigger and track tool

The newborn early warning trigger and track (NEWTT) tool is designed to be used by healthcare professionals working in areas caring for newborns in the postnatal period. The tool is designed to standardise the process for observing a baby after birth and uses colour coding (white, yellow or red depending on the amount of variation from the expected range) to aid identification of babies that need additional support. (HSIB maternity team)

## Newborn and infant physical examination

The newborn and infant physical examination (NIPE) is a top to toe examination performed on all newborn babies within 72 hours of birth. The examination aims to identify and refer all babies born with abnormalities including of the heart, hips, eyes and testes, where these are detectable, within 72 hours of birth. The examination is repeated between six and eight weeks of age.

Further information from: **Public Health England - NIPE**

## Newborn jaundice

Newborn jaundice is a common and usually harmless condition which may affect a newborn baby. When a baby is born they have a large number of red blood cells in their blood. As these cells begin to naturally break down, bilirubin is produced. If the bilirubin builds up then this may cause a yellowing of a baby's skin and the whites of their eyes. Newborn jaundice usually resolves without treatment by the time a baby is 14 days old.

For further information: **Newborn jaundice - NHS**



## **Newborn life support**

Newborn life support describes the process of managing a baby's transition to life after birth. It includes guidance on the steps needed to resuscitate a baby, and the order these steps should be performed. (HSIB maternity team)

## **NHS 111**

NHS 111 is a telephone and an online service that may suggest the most appropriate course of action when a mother/baby is unwell. (HSIB maternity team)

## **NHS newborn blood spot screening programme**

The UK National Screening Committee (UK NSC) recommends all babies are offered screening for nine conditions, including cystic fibrosis. NHS newborn bloodspot screening (NBS) is offered to all babies from five days of age. For the small number of babies affected, early detection, referral and treatment can help to improve their health and prevent severe disability or even death. Parents can also receive support and education about their child's condition.

Further information from: **UK Government - standards for NHS newborn blood spot screening**

## **NHS Test and Trace**

The NHS Test and Trace service was set up by the Government in 2020 to reduce the spread of COVID-19. When someone tests positive for COVID-19 they may be asked to provide information on where they have been and who they have seen. Close contacts and relevant locations may then be notified by the service and advised on further action. Since October 2021, NHS Test and Trace services have been managed by the UK Health Security Agency. (HSIB maternity team)

## **Nifedipine (Please use the appropriate description depending on the indication for nifedipine.)**

(medication to lower blood pressure)

(medication to slow uterine contractions)

## **Nitric oxide**

Nitric oxide is an inhaled gas which may help to dilate (widen) the blood vessels in a baby's lungs. Nitric oxide may be used to improve a baby's oxygen levels. (HSIB maternity team)

## **Non-invasive positive pressure ventilation**

Non-invasive positive pressure ventilation involves the use of breathing support given to a mother/baby through a mask, nasal mask or helmet. (HSIB maternity team)





### **Non-invasive prenatal test**

A non-invasive prenatal test (NIPT) is a test to look for a baby's DNA (genetic material) in their mother's bloodstream. This is sometimes called a free fetal DNA (ffDNA) or a cell free fetal DNA test (cffDNA). (HSIB maternity team)

### **Non-invasive prenatal test for Down's, Edwards' or Patau's syndrome**

A non-invasive prenatal test (NIPT) is a test to look for a baby's DNA (genetic material) in their mother's bloodstream. A mother's blood sample is examined in a laboratory to assess the chance of a baby having Down's, Edwards' or Patau's syndrome. A NIPT is much more accurate than the combined screening test. It means mothers can be given the news that their baby is highly unlikely to have these syndromes and helps them to avoid invasive testing. (HSIB maternity team)

### **Non rebreathing mask**



A mask which covers a mother's nose and mouth. The mask is attached to a reservoir bag, that is connected to an oxygen supply. It is used to administer a high concentration of oxygen. (HSIB maternity team)

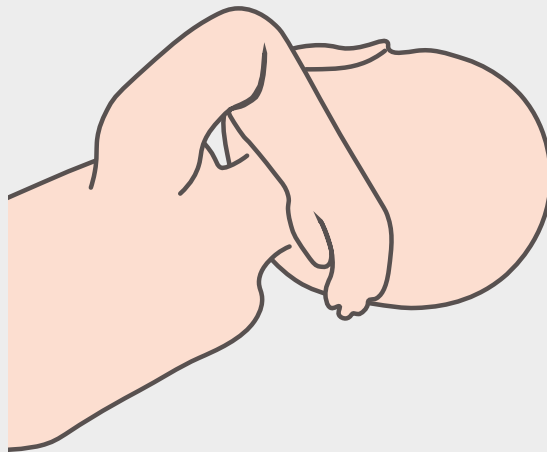
### **Normal CTG**

If the CTG is categorised as normal, no escalation is required. (HSIB maternity team)

### **Normocomplementemic urticarial vasculitis**

Normocomplementemic urticarial vasculitis (NUV) is generally the least severe form of urticarial vasculitis. It is less likely to be associated with any other symptoms. (HSIB maternity team)

## Nuchal arm



When a baby has their arm as pictured, this can impede spontaneous breech birth. It occurs in approximately 5% of breech presentations and is a significant cause of delay and complication. (HSIB maternity team; photo PrOMPT foundation)

## Nucleated erythroblasts

(an immature red blood cell).

## Nutrient artery

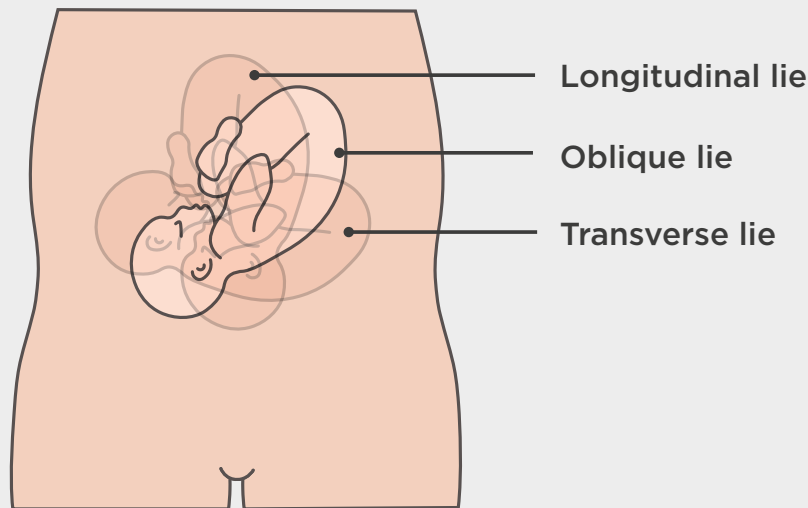
(provides the main blood supply to long bones).

## Nystagmus

Nystagmus is a rhythmical, repetitive and involuntary movement of a mother's/ baby's eyes. It is usually from side to side, and may sometimes occur in an up and down or circular motion. Both eyes can move together or independently of each other. A mother/baby with nystagmus has no control over this movement of the eyes. (HSIB maternity team)



## Oblique lie



An oblique lie is where a baby is lying in a diagonal position in the womb and therefore the presenting part of a baby (head or bottom) is not in a mother's pelvis. (HSIB maternity team)

### Obstetric cholestasis/Intrahepatic cholestasis of pregnancy

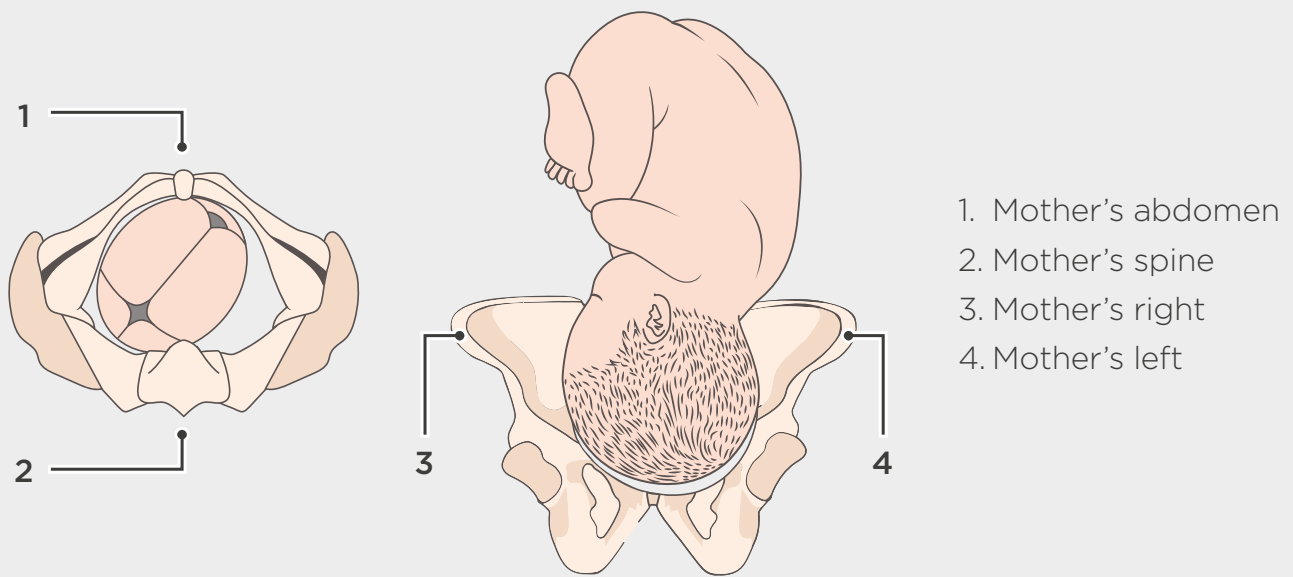
Obstetric cholestasis (OC), sometimes called intrahepatic cholestasis of pregnancy (ICP), is a potentially serious liver disorder that can develop in pregnancy. Normally, bile acids flow from the liver to the gut to help digest food. In OC/ICP the bile acids do not flow properly and build up in the body, instead causing itching.).

It affects 1 in 140 pregnant mothers in the UK. Symptoms of OC/ICP typically start from around 30 weeks, it is possible to develop the condition as early as 8 weeks. There is no cure for OC/ICP, and it usually resolves once a baby is born. Further information from: **NHS - obstetric cholestasis**

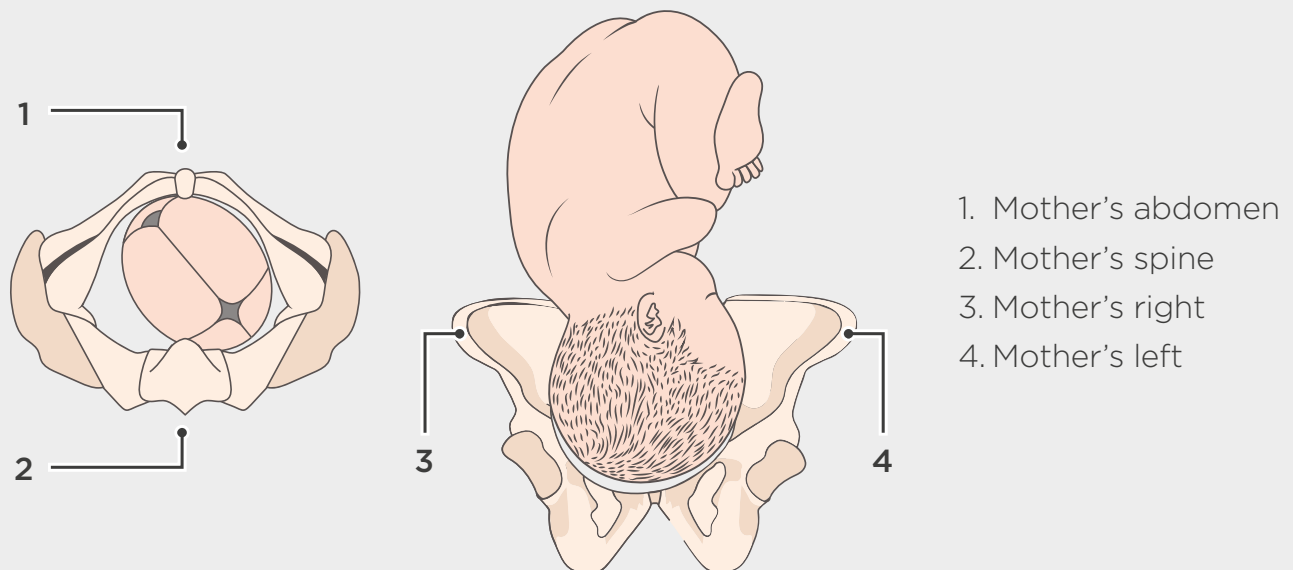
### Obstructed labour

Labour is considered obstructed when a baby cannot progress through the birth canal, despite strong uterine contractions. The most frequent cause of obstructed labour is cephalo-pelvic disproportion - a mismatch in size between a baby's head and a mother's pelvis. Obstructed labour is more common when a baby's head is in an unusual position. (HSIB maternity team)

## Occipito anterior position

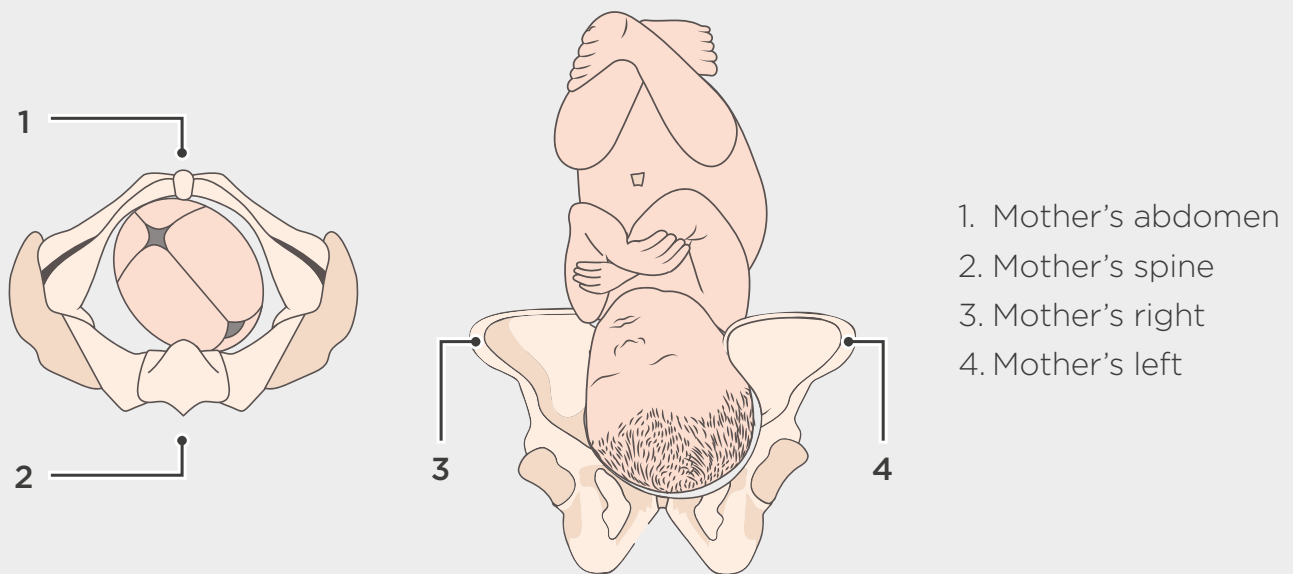


Left occipito anterior (LOA) is when a baby is head down and the back of a baby's head is against a mother's abdomen to her left side.

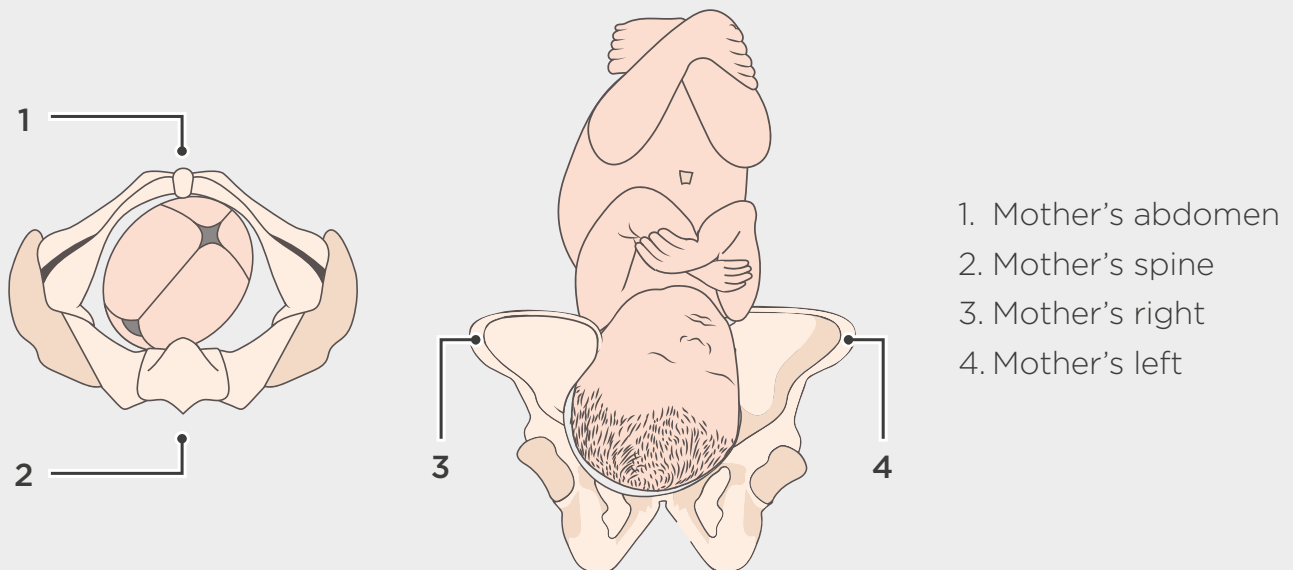


Right occipito anterior (ROA) is when a baby is head down and the back of a baby's head is against a mother's abdomen to her right side.  
When the back of a baby's head is against the middle of a mother's abdomen, this is known as direct occipito anterior. (HSIB maternity team)

## Occipito posterior position

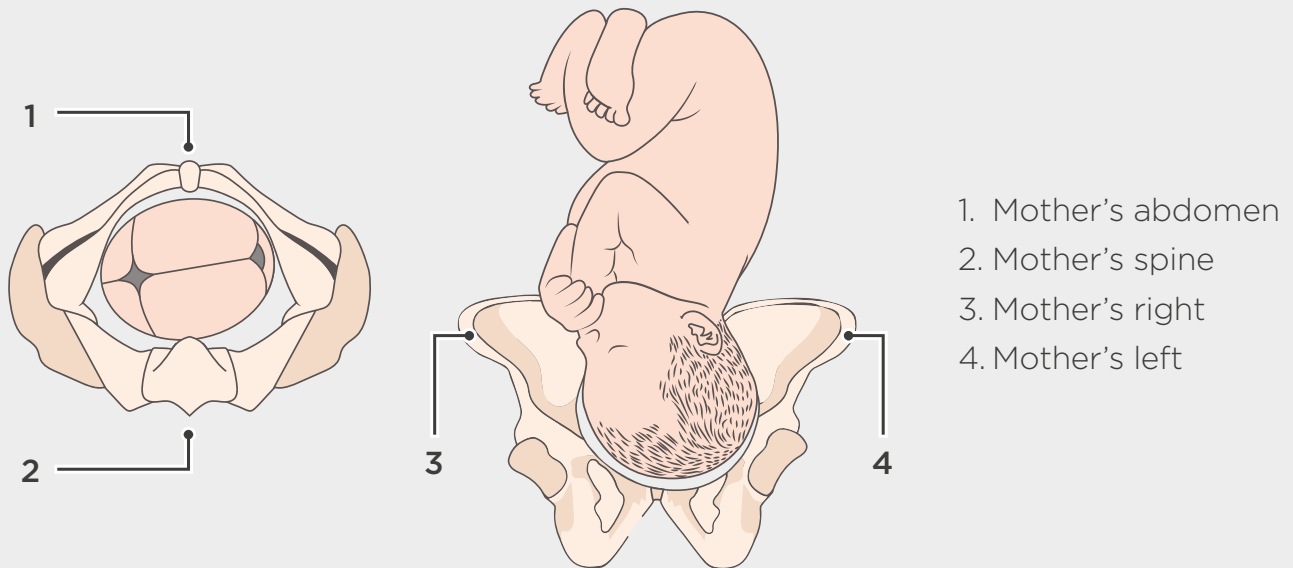


Left occipito posterior (LOP) is where a baby is head down and the back of a baby's head is against the left side of a mother's back.

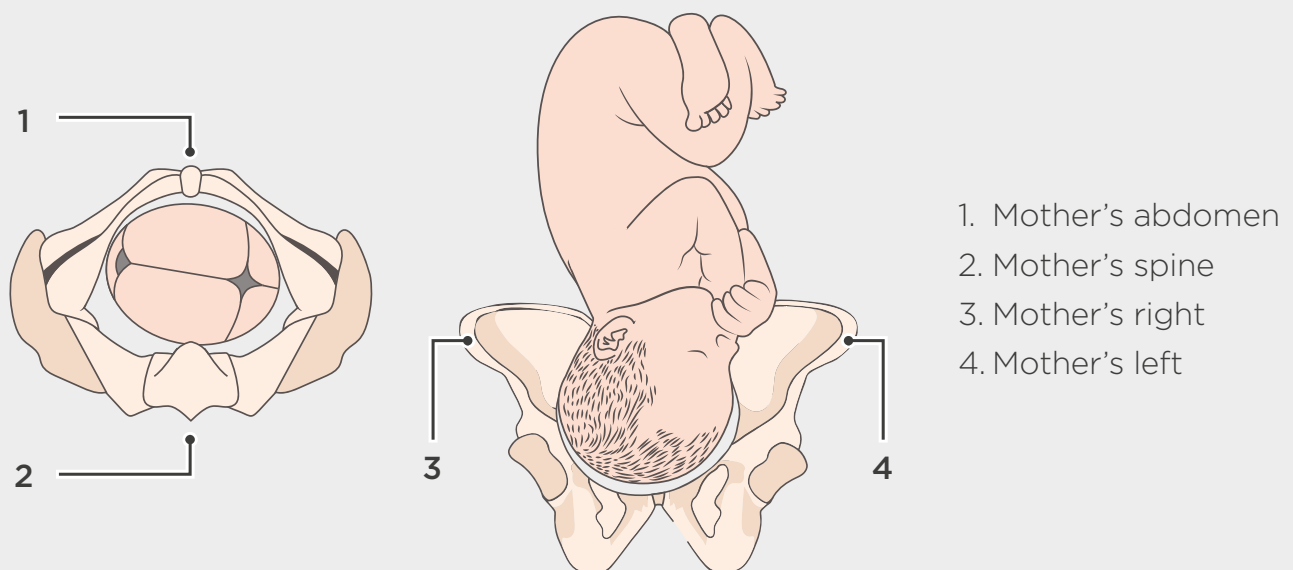


Right occipito posterior (ROP) is where a baby is head down and the back of a baby's head is against the right side of a mother's back.  
When the back of a baby's head is against with a mother's back, this is known as direct occipito posterior (DOP). (HSIB maternity team)

## Occipito transverse position



Left occiput transverse (LOT) is where a baby is head down and the back of a baby's head is against the mother's left side.



Right occiput transverse (ROT) is where a baby is head down and the back of a baby's head is against the mother's right side. (HSIB maternity team)

## Occult spina bifida

(a small gap in the bones of a mother's spine)

## Oedema of pregnancy

Oedema, particularly of a mother's legs, ankles, feet or fingers, is normal in pregnancy. It is often worse at the end of the day and towards the end of a pregnancy. The swelling is not harmful to a mother or a baby; it can be uncomfortable.

Further information from: **NHS – swollen ankles, feet and fingers in pregnancy**

## Oesophageal varices

The oesophagus (food pipe) carries food from a mother's mouth to the upper part of the stomach. Oesophageal varices are enlarged veins that may form at the lower end of the food pipe. They may cause bleeding. (HSIB maternity team)

## Oesophagogastroduodenoscopy

Oesophagogastroduodenoscopy (OGD) is a procedure that involves looking at the upper part of a mother's gastrointestinal tract. A narrow flexible tube (a gastroscope) is used to look at the oesophagus (food pipe), stomach and the first part of the small intestine. (HSIB maternity team)

## Oligohydramnios

A reduced amount of amniotic fluid (water) present around a baby in the womb. (HSIB maternity team)

## Oliguria

(reduced output of urine)

## One to one care in labour

(when a mother is cared for by a midwife who is looking after just her)

## Operational pressures escalation levels framework

The operational pressures escalation levels (OPEL) framework is a tool developed to establish a nationally consistent system for defining the pressure on health and social care systems.

Further information from: **NHS – OPEL**

## Oral glucose tolerance test

A oral glucose tolerance test is a medical test in which an initial fasting blood test is taken, then a glucose solution or sugary drink is given by mouth. A further blood sample is taken two hours later. The test determines how quickly the glucose is cleared from the blood in order to diagnose gestational diabetes.

Further information from: **Diabetes UK – testing for diabetes**

## Oral suctioning

The purpose of oral suctioning is to maintain an open airway and improve oxygenation by removing mucous secretions and foreign material (vomit or gastric secretions) from the mouth and throat of a mother/baby.

Further information from: **Clinical procedures**



## **Oropharyngeal airway**

A device used to maintain or open a mother/baby's airway. (HSIB maternity team)

## **Oxygen saturation (SpO2)**

### **For a mother**

Oxygen is predominately carried around in a mother's red blood cells. A special probe (pulse oximeter) may be placed on a mother's finger or toe to measure how much oxygen the blood is carrying. This is called the oxygen saturation and is a percentage (scored out of 100) The expected range for a pregnant woman is 94% to 100%. (HSIB maternity team)

## **Oxygen saturation**

### **For a baby**

Oxygen saturation is measured by placing a special probe on the hand or foot of a baby. This is an indicator of the amount of oxygen flowing through a baby's blood vessels. (HSIB maternity team)

## **Oxytocin**

### **(Labour)**

Oxytocin is one of the hormones produced naturally by mothers in labour and assists in increasing the frequency of contractions. Oxytocin is given through a drip, and the timing of the subsequent contractions, are monitored closely. If the contractions are too sparse, or become too frequent, the amount of oxytocin given via the drip can be altered if needed. (HSIB maternity team)

### **(Postpartum)**

Oxytocin may be given to a mother through a drip after a baby is born to prevent or control increased bleeding.



# P

## **Packed cell volume**

Packed cell volume, or PCV, is a blood test to directly measure the proportion of a mother/baby's blood that is made up of red blood cells. The measurement may be higher when a mother/baby has a higher than expected number of red blood cells or if they are dehydrated. (HSIB maternity team)

## **Paired cord gases**

(where samples of blood are taken from the venous and arterial vessels in an umbilical cord).

## **Palliative care/reorientation of care**

Palliative care/reorientation of care describes a care pathway for a mother/baby who has a life-threatening or life limiting condition. The care focuses on improving quality of life, reducing pain and supporting a mother's/baby's family with their emotional wellbeing and to make practical arrangements. (HSIB maternity team)

## **Pancreatic insufficiency**

Pancreatic insufficiency is a condition where a mother's pancreas does not produce enough of the enzymes (a type of protein) needed to break down food. (HSIB maternity team)

## **Pancreatitis**

Pancreatitis is a condition where a mother's pancreas becomes inflamed (swollen). The pancreas is a small organ located behind the stomach. The pancreas helps with digestion and releases insulin to help control blood sugar levels. Pancreatitis may cause sudden and severe pain below the centre of a mother's ribs, nausea, vomiting and diarrhoea.

Treatment usually involves staying in hospital and receiving fluids through an intravenous drip, liquid food through a feeding tube placed via the nose into the stomach, and oxygen through tubes in the nostrils. Pancreatitis usually starts to improve after a few days, although it can take longer or lead to other complications.

Further information from: **NHS - pancreatitis**

## **Pancytopenia**

Pancytopenia is a condition where there are a reduced number of red and white blood cells and platelets in a mother's/baby's blood. (HSIB maternity team)

## **Papilloedema**

Papilloedema is an eye condition that happens when pressure in a mother's/baby's brain makes the optic nerve swell. (HSIB maternity team)



## PAPP-A

Pregnancy associated plasma protein A (PAPP-A), is a hormone that is produced by the placenta in pregnancy. It is one of the markers that is tested as part of the combined screening test. Low levels of PAPP-A can be associated with chromosomal syndromes and may also be associated with small babies and early births. Because of this, national guidelines suggest that extra scans should be considered to check the growth of babies when a low PAPP-A level has been found.

Further information from: **NHS - PAPP-A**

## Parameters for treatment of hypertension (non-pregnancy)

Adults with extreme hypertension (220/120mmHg or higher) or emergency symptoms should be referred for same-day hospital specialist assessment.

For adults with hypertension aged under 80, reduce clinic blood pressure to

- below 140/90mmHg and ensure that it is maintained below that level.

To monitor the response to treatment in adults with hypertension, use the average blood pressure level taken during the person's usual waking hours.

Reduce blood pressure and ensure that it is maintained:

- below 135/85 mmHg for adults aged under 80

Further information from: **NICE - Hypertension in adults**

## Parameters for treatment of hypertension in adults with type 1 diabetes (non-pregnancy)

In adults with type 1 diabetes aim for blood pressure targets as follows:

- For adults with a urine albumin: creatinine ratio (ACR) less than 70 mg/mmol, aim for a clinic systolic blood pressure less than 140 mmHg (target range 120 to 139 mmHg) and a clinic diastolic blood pressure less than 90 mmHg.
- For adults with an ACR of 70 mg/mmol or more, aim for a clinic systolic blood pressure less than 130 mmHg (target range 120 to 129 mmHg) and a clinic diastolic blood pressure less than 80 mmHg.

Further information from: **NICE - Type 1 diabetes**

## Parasympathetic nervous system

The parasympathetic nervous system is part of a mother's/baby's involuntary nervous system. The parasympathetic nervous system acts to lower a mother's/baby's heart rate following a period of stress. (HSIB maternity team)

## Paroxysmal atrial fibrillation

Paroxysmal atrial fibrillation is a type of irregular and sometimes fast heartbeat. A mother with paroxysmal atrial fibrillation may feel dizzy, tired or short of breath. Paroxysmal atrial fibrillation usually resolves without treatment within seven days or treatment may be needed to treat the condition. (HSIB maternity team)

## **Parietal lobe stroke**

A parietal lobe stroke is a type of stroke that occurs in the part of the brain known as the parietal lobe. The type and severity of parietal stroke symptoms are based largely on the location and size of the injury and can include impairment of speech, thought, coordination, and/or movement. (HSIB maternity team)

## **Partial pressure of oxygen**

Partial pressure of oxygen (pO<sub>2</sub>) is a measurement of the amount of oxygen gas dissolved in a mother's/baby's blood. (HSIB maternity team)

## **Partogram**

The partogram is a graph in which all the relevant observations of a mother and the unborn baby during labour are written. (HSIB maternity team)

## **Parvovirus**

Parvovirus, sometimes called slapped cheek syndrome, is a viral infection. Symptoms may include a high temperature, runny nose, sore throat and a red rash on the face, which spreads to the trunk and limbs. Usually, infection is mild and treatment is not required. At least 50 to 70% of pregnant mothers are likely to already be immune to parvovirus B19. In mothers who are not immune, infection in the first 20 weeks of pregnancy can lead to miscarriage and serious conditions in a baby, including hydrops fetalis (excess collection of fluid in a baby's organs) and stillbirth.

Further information from: **NHS - parvovirus**

## **Passive leg raise test**

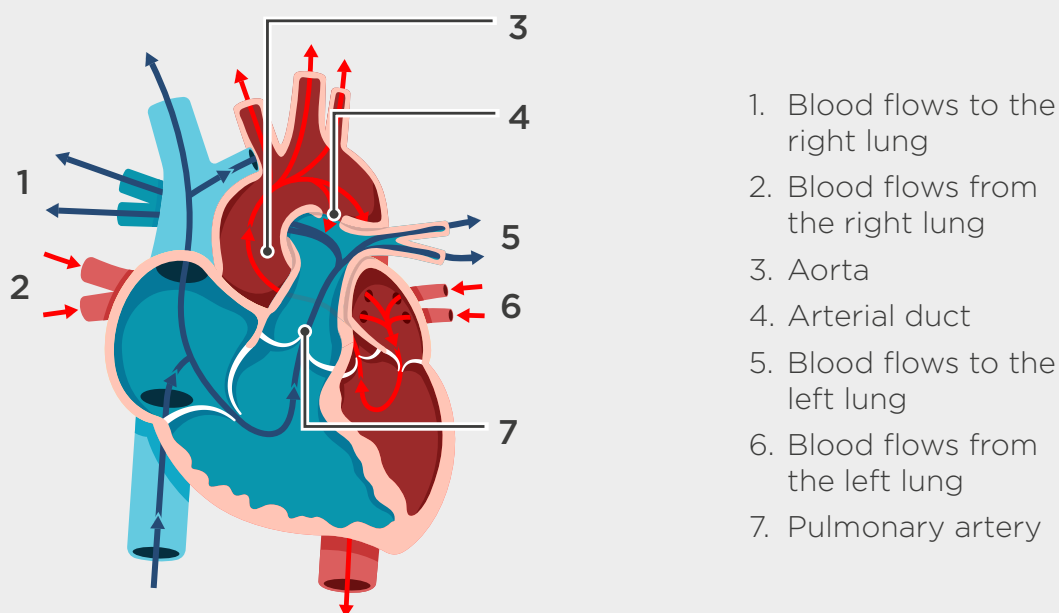
During a passive leg raise test a mother's legs are elevated and her blood pressure and heart rate are measured. This may indicate whether she needs further fluid. (HSIB maternity team)

## **Patau's syndrome (trisomy 13)**

Most people have two copies of each of their 23 chromosomes. In some people there is an extra copy of chromosome 13. This is called Patau's syndrome. It occurs by chance and is not caused by anything anyone did before or during pregnancy. It is a rare and serious condition. Most babies with Patau's syndrome will die before or soon after birth.

Further information from: **NHS - Patau's syndrome**

## Patent ductus arteriosus (Please add the highlighted section if the mother has a patent ductus arteriosus)



The arterial duct is a short blood vessel that connects the two main arteries of the heart. Before a baby is born the arterial duct allows blood to bypass the lungs. After a baby is born, the arterial duct is no longer required as the lungs fill with air when a baby breathes. The arterial duct usually closes by itself within the first week of life. Sometimes the duct does not close by itself and remains open. This is called patent ductus arteriosus (PDA). Because babies and young children often do not show any symptoms, a PDA may not be found until they are older. It is not unusual for a PDA to be diagnosed in older children, teenagers or even in adults. Usually, the only test that is needed to make the diagnosis is an echocardiogram (an ultrasound scan of the heart). PDA is treated with keyhole surgery, or open-heart surgery. Most ducts are small (only a couple of millimetres or so wide) and can be safely closed using a keyhole treatment. If a person has a larger duct, they may need open-heart surgery.

Further information from: **British Heart Foundation - PDA**

### Patent foramen ovale

A patent foramen ovale, or PFO, is a hole between the top two chambers of a baby's heart. This hole is present in all babies in the womb and normally closes soon after birth. When the hole does not close, it is called a patent foramen ovale. This may require correction with an operation. (HSIB maternity team)

### Pathological CTG

If a CTG is categorised as pathological this requires prompt senior review and action to further assess fetal wellbeing and consider if a baby should be born sooner. (HSIB maternity team)

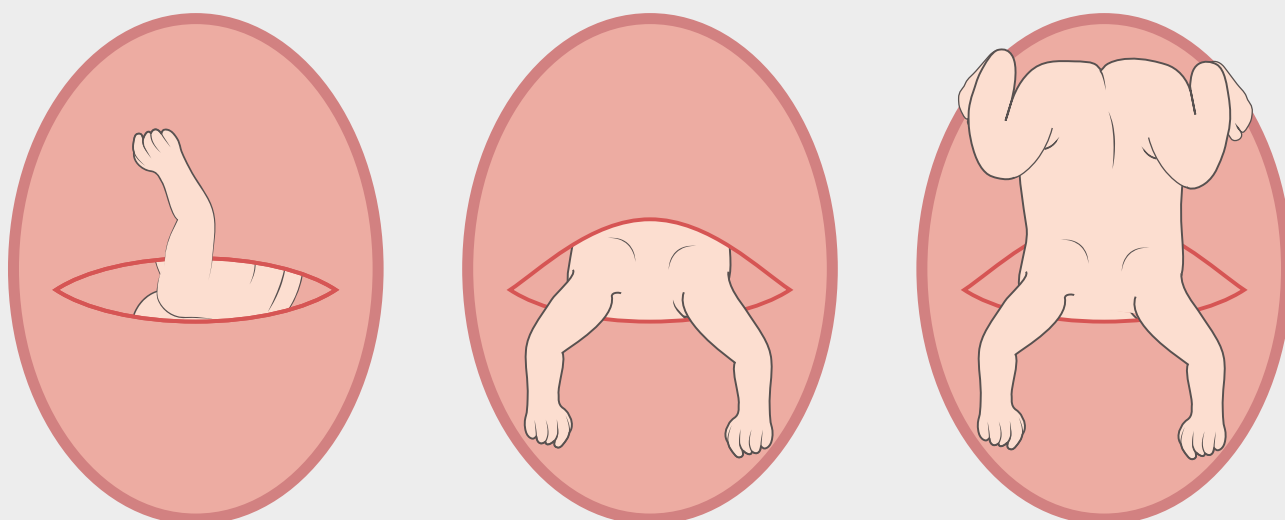
## Patient controlled epidural analgesia

Patient controlled epidural analgesia (PCEA) is the delivery of epidural pain relieving medicine via an infusion pump. It is programmed to deliver a pre-determined dose when triggered by a mother. The pump has a lockout period, during which time no further doses can be administered, preventing overdose. (HSIB maternity team)

## Patient group directions

Patient group directions (PGDs) provide a legal framework that allows some registered health professionals to supply and/or administer specified medicines to a pre-defined group of mothers, without them having to see a prescriber (such as a doctor or nurse prescriber). Supplying and/or administering medicines under PGDs should be reserved for situations in which this offers an advantage for a mother's care, without compromising their safety.

## Patwardhan's method



The Patwardhan's method is a technique used to support birth of a baby during caesarean birth when the head is very low in the birth canal. It involves birth of both a baby's shoulders through the caesarean section incision followed by the body, the breech (bottom) and then the head. (HSIB maternity team)

## Peak flow test

A peak flow test involves a mother blowing as hard as she can into a small handheld device called a peak flow meter. By measuring how fast she is able to breathe out, her peak flow score can indicate whether her airways are narrowed. Further information from: **NHS - Peak flow test**

## Peak inspiratory pressure

((PIP) pressure applied to the lungs during ventilation)

Or

### **Peak inspiratory pressure**

Peak inspiratory pressure is the maximum pressure in a mother's/baby's lungs that is achieved at the peak of inspiration (breathing in). (HSIB maternity team)

### **PEEP (positive end expiratory pressure)**

Pressure applied to a baby's airway during breathing out. This helps to stop the lungs from collapsing while a baby requires breathing support.

Further information from: **Bliss - neonatal unit explanations**

### **Pemphigoid gestationis**

Pemphigoid gestationis is a condition that may affect a mother's skin during pregnancy. It usually occurs in mid to late pregnancy, starting around a mother's tummy button with an itchy rash that develops into blisters and spreads across her abdomen. Pemphigoid gestationis may recur in future pregnancies.

Further information from: **British Association of Dermatologists**  
**- pemphigoid gestationis**

### **Pelvic girdle pain**

Some mothers develop pelvic pain in pregnancy. This is sometimes called pregnancy-related pelvic girdle pain (PGP) or symphysis pubis dysfunction (SPD). PGP is a collection of uncomfortable symptoms caused by a stiffness of the pelvic joints or the joints moving unevenly at either the back or front of the pelvis. PGP is not harmful to a baby; it can be painful and make it hard for mothers to get around.

Further information from: **NHS - PGP**

### **Percutaneous endoscopic gastrostomy**

Percutaneous endoscopic gastrostomy (PEG), is a procedure in which a flexible feeding tube is placed through the abdominal wall of a mother/baby and into the stomach. A PEG allows nutrition, fluids and/or medicines to be put directly into the stomach, bypassing the mouth and throat. (HSIB maternity team)

### **Performance status**

If a mother has cancer her performance status is a measure of her general wellbeing and how well she is able to carry on ordinary daily activities. It provides an estimate of what treatments a mother may tolerate, whether treatment dose adjustment is necessary and the required intensity of palliative care. (HSIB maternity team)

### **Peri-arrest**

Peri-arrest is a period of time, just before or just after a mother's/baby's heart stops (cardiac arrest) when their clinical condition is unstable. (HSIB maternity team)



## **Pericardial effusion**

A mother's heart has a protective fluid filled sac around it called the pericardium. If excess fluid builds up between the heart and the sac, this is called a pericardial effusion. (HSIB maternity team)

## **Pericardium**

(sac containing a mother's/baby's heart)

## **Peri-mortem caesarean birth**

A peri-mortem caesarean birth is a caesarean birth which is performed either during or just before a maternal cardiac arrest. The aim of the caesarean birth is to increase the chance of successfully resuscitating a mother. (HSIB maternity team)

## **Perinatal obsessive-compulsive disorder**

Obsessive-compulsive disorder (OCD) is a type of anxiety disorder. Perinatal OCD is when a mother experiences OCD during pregnancy or in the year after giving birth. (HSIB maternity team)

## **Perinatal pathologist**

A perinatal pathologist is a doctor who specialises in the diagnosis of conditions which may affect a fetus, placenta, infant or child by examining tissues or organs in a laboratory. The aim is to provide explanations and information for families following a pregnancy loss or when a baby is born requiring additional care, to help them to understand what has happened and reduce the chance of a similar event happening in another pregnancy. (HSIB maternity team)

## **Perineal tears during childbirth**

The perineum (area between a mother's vagina and back passage) may tear during childbirth. After giving birth a clinician will offer to examine a mother to confirm whether there is a tear and if stitches are needed. A tear involving a mother's perineum and the vaginal muscles is called a first- or second-degree tear. Usually these perineal tears will heal well within around six weeks of childbirth and there will be no long-term problems caused by the tear.

Sometimes, a mother's perineal tear may be deeper and involve her back passage and/or the muscles around this area. This is called a third- or fourth-degree tear and will need repairing in an operating theatre.

Further information from: **RCOG - Perineal tears**

## **Perineum (mother)**

(the area of skin between a mother's vulva and anus)

## **Perineum (baby)**

(the area of skin between a baby's scrotum or vulva and anus)

## **Peripartum cardiomyopathy**

Peripartum cardiomyopathy (PPCM) is a condition where a mother's heart becomes enlarged and weakened, and less able to pump blood than usual. It may occur in the last four weeks of pregnancy and up to five months post-partum (after the birth of a baby). It is a rare condition and can lead to symptoms and signs of heart failure, changes to a heart rhythm and even sudden death.

Symptoms of PPCM include;

- breathlessness (particularly at rest)
- a cough
- swelling in the ankles and abdomen
- heart palpitations
- extreme fatigue
- swollen veins in a mother's neck. (HSIB maternity team)

## **Peripartum haemorrhage**

Peripartum haemorrhage is heavy bleeding during pregnancy, labour, birth or the postpartum period. (HSIB maternity team)

## **Peripheral cyanosis**

Peripheral cyanosis is a bluish discoloration of the hands, feet and limbs.

Assessment of peripheral cyanosis is subjective and can be more challenging in mothers who have black or brown skin. The limbs will usually feel cold. It is often a sign that the blood circulation is poor.

Further information from: **NHS - cyanosis**

## **Peripherally inserted central catheter**

A peripherally inserted central catheter (sometimes called a PICC line) is a thin, soft, long tube that may be inserted into a mother's/baby's arm, leg or neck. The end of the PICC line will be placed near to a mother/baby's heart and may be used for weeks or months. The PICC line may be used to take blood or to give antibiotics, nutrition or medication to a mother/baby.

## **Perirolandic ischaemic changes**

Perirolandic ischaemic changes in a baby's brain suggest a hypoxic injury occurring before birth. (HSIB maternity team)

## **Periventricular leukomalacia**

Periventricular leukomalacia (PVL) is a type of brain injury that is most common in babies who are born too soon (premature) or have a low birthweight. It happens when parts of a baby's brain are deprived of blood and oxygen leading to softening of the tissue. In babies born at term it can be caused by hypoxia (lack of oxygen) or infection.

Further information from: **GOSH - PVL**



### **Perivillous fibrin deposition**

Perivillous fibrin deposition occurs when a mother's blood forms small fibrinous clots at the base of a baby's placenta. A considerable amount of fibrin may be present without causing any problems for a baby. (HSIB maternity team)

### **Permanent atrial fibrillation**

Permanent atrial fibrillation (AF) is a condition where a mother's heart rate is irregular and unusually fast and a return to normal rhythm cannot be achieved. (HSIB maternity team)

### **Persistent atrial fibrillation**

Persistent atrial fibrillation (AF) is a condition where a mother's heart rate is irregular and unusually fast for more than 1 week. (HSIB maternity team)

### **Persistent pulmonary hypertension of the newborn**

Persistent pulmonary hypertension of the newborn (PPHN) occurs when the blood vessels in a baby's lungs do not open wide enough to allow blood and oxygen to flow freely. This limits the amount of oxygen available to the baby's brain and other organs and causes a baby's skin to appear blue or pale. Causes include infection, meconium aspiration syndrome or congenital abnormality. (HSIB maternity team)

### **Personal assistants in adult social care**

One or more personal assistants may support a mother who has a social or health need. They may perform a wide range of tasks, to promote a mother's wellbeing and to support them to live as independently as possible. (HSIB maternity team)

### **Personal health questionnaire - 9**

The personal health questionnaire - 9 (PHQ-9) is a tool that may be used by a clinician to evaluate a mother's mental health. (HSIB maternity team)

### **Personal protective equipment**

Personal protective equipment (PPE) includes masks, gloves, aprons, gowns and eye protection. National guidance is available to explain to staff the PPE they need to wear in a given clinical situation. (HSIB maternity team)

### **Petechiae**

Petechiae are pinpoint, round spots that appear on a mother/baby's skin as a result of bleeding from the small blood vessels near the surface of the skin. This bleeding may be caused by illness, infection, reaction to medication, or pressure during birth (Edit as required). The petechial spots may appear red, brown or purple. Treatment of petechiae varies depending on the cause. (HSIB maternity team)

## **Pethidine**

Pethidine is a medicine that may be used to relieve a mother's pain in labour. It may also be used to help a mother relax during the early stages of labour. It is usually given as an injection into her thigh or buttock. It may take 20 minutes to work fully, and the effect may last for two to four hours. Pethidine can cross the placenta and may affect a baby's ability to breathe immediately after birth. (HSIB maternity team)

## **PET screen**

A PET screen may be performed when a mother is suspected of having pre-eclampsia.

It involves a series of blood tests to measure the effects of pre-eclampsia on a mother's organs. The tests include liver function tests (LFTs), and urea and electrolytes (U&Es) to monitor kidney function. A full blood count (FBC) is also taken to measure a mother's haemoglobin (iron), and the number of platelets (blood cells used to make blood clots) in her blood. Additional blood may be tested to assess how easily her blood clots. As well as blood tests, a mother's urine may be tested for the presence of protein as part of a PET screen.

The results of these tests will be considered alongside a mother's condition and will help clinicians to decide on the best course of treatment. (HSIB maternity team)

## **Phenylephrine**

(a decongestant medicine)

## **Pheochromocytoma**

A pheochromocytoma is a tumour of the adrenal glands. The tumour is usually non-cancerous (benign), around 1 in 10 are cancerous (malignant). The adrenal glands, which are found above a mother's kidneys, make the hormones adrenaline and noradrenaline. When released into a mother's bloodstream, these hormones control heart rate, blood pressure and metabolism (the chemical processes that keep the body's organs working). A pheochromocytoma can cause the adrenal glands to produce too much of these hormones. Symptoms of a pheochromocytoma can be unpredictable and may include heart palpitations, sweating, headaches and high blood pressure. (HSIB maternity team)

## **Photophobia**

Photophobia, sometimes called light sensitivity, is a condition where a mother/baby is sensitive to light. (HSIB maternity team)

## **Phototherapy**

Phototherapy is a treatment which may be used to treat jaundice in a baby. Phototherapy involves using a special type of light to help to break down the excess bilirubin in a baby's blood. A baby will be placed in a special cot under

the phototherapy light and their eyes are covered. During phototherapy a baby's bilirubin levels will be checked at regular intervals with a blood test. Phototherapy treatment usually takes one to two days.

Further information from: **NHS - Phototherapy**

### **Phototherapy blanket**

Phototherapy is a treatment which may be used to treat jaundice in a baby. Phototherapy involves using a special type of light to help to break down the excess bilirubin in a baby's blood. A special blanket containing a phototherapy light may be used. During phototherapy a baby's bilirubin levels will be checked at regular intervals with a blood test. Phototherapy treatment usually takes one to two days.

Further information from: **NHS - phototherapy**

### **Physician response unit**

A physician response unit (PRU) is a rapid response vehicle (car with emergency markings, blue lights and sirens) crewed by a doctor and with additional medications and equipment that a doctor can use. PRUs are most commonly deployed by charities such as air ambulance trusts and pre-hospital volunteer doctor schemes. (HSIB maternity team)

### **Physiological management of the third stage of labour**

Physiological management of the third stage of labour is when a mother is not given any medication to help the placenta separate from her uterus. The umbilical cord is usually not clamped or cut until it has stopped pulsating and the placenta and membranes are expelled by maternal effort. This usually happens within 60 minutes of a baby being born. (HSIB maternity team)

### **Pierre Robin sequence**

A baby with Pierre Robin sequence may have a combination of issues which may include a small jaw (which appears to recede) and a cleft palate. The small jaw means that a baby's tongue will be further back than usual, this can cause breathing difficulties. Sometimes a baby with Pierre Robin sequence may also have another syndrome.

Further information from: **Cleft lip and palate association**

### **Pinard stethoscope**

A small trumpet shaped device placed on a mother's abdomen. The midwife places their ear on the other end to listen directly to a baby's heartbeat. (HSIB maternity team)



## Pituitary apoplexy

Pituitary apoplexy is an endocrine disorder caused by a reduced blood supply or bleeding in a mother's pituitary gland. It may be linked with the presence of a pituitary tumour. Death of an area of a mother's pituitary gland (pituitary infarction), during labour or immediately after birth, is called Sheehan's syndrome. (HSIB maternity team)

## Placenta accreta

Placenta accreta is a rare and serious condition when the placenta is stuck to the muscle of the womb and/or to nearby structures such as the bladder. This is more common if a mother has previously had a caesarean. It may cause heavy bleeding at the time of birth.

Further information from: **RCOG - placenta accreta**

## Placental abruption

Placental abruption is the separation of the placenta from the uterine wall before a baby is born. It usually presents with abdominal pain and bleeding, although sometimes it is concealed, and no blood loss is seen. Its effect on a mother and baby depend on the severity of the bleeding and the gestation of the pregnancy. If the abruption is large, it can cause collapse in a mother and/or distress in a baby and requires urgent birth. Although there are certain factors in a mother that make placental abruption more likely, it can happen in any pregnancy (HSIB maternity team).

## Placental alpha macroglobulin-1 test

The placental alpha macroglobulin-1 test may be used to help to predict preterm birth in a mother with symptoms of premature labour. (HSIB maternity team)

## Placental dysfunction screening

Placental dysfunction is a complication that a mother may experience during pregnancy, where her placenta does not work effectively. Placental dysfunction means that a mother has an increased chance of developing preeclampsia or having a baby that is small for gestational age. Placental dysfunction screening aims to identify mothers with risk factors, so that they can receive the required additional care.

Risk factors for placental dysfunction include:

- **Maternal factors** – such as age, weight, height, ethnic group, method of conception, smoking status, number of pregnancies and medical history.
- **Biophysical markers** - a mother's blood pressure and uterine artery Doppler measurements
- **Biochemical markers** - measurement of the pregnancy associated plasma protein-A (PAPP-A) level during a blood test.

The information collected is entered into a software device which estimates a mother's individual risk for placental dysfunction. (HSIB maternity team)

## Placental infarction

A placental infarction is an area of a placenta where blood flow has been interrupted causing that part of the placenta to stop working. If a large area of a placenta has stopped working a baby may not receive the oxygen and nutrients they need. (HSIB maternity team)

### Use for SFA/FGR and alive or NND

## Placental insufficiency

Placental insufficiency describes when the placenta does not work as well as expected during pregnancy. It may lead to a baby growing less than expected. (HSIB maternity team)

### Use for when IUD

## Placental insufficiency

Placental insufficiency describes when the placenta does not work as well as expected during pregnancy. It may lead to a baby growing less than expected. If the placental function becomes extremely limited this may lead to the death of the baby in the womb. (HSIB maternity team)

## Placental growth factor

(blood test for likelihood of developing pre-eclampsia)

## Placental perfusion

(how well the blood moves through a placenta)

## Placental thickness/depth/size measurement

Placental depth/thickness/size is not usually measured during a mother's routine ultrasound scan (USS). Placental depth/thickness/size may be measured during a specialist USS. A larger placenta, sometimes called placentomegaly, can be a normal finding on USS. It may also be associated with a range of conditions in a mother and a baby. (HSIB maternity team)

## Placenta praevia

The placenta develops along with a baby in the uterus (womb) during pregnancy. It connects a baby with a mother's blood system and provides a baby with its source of oxygen and nourishment. The placenta is delivered after a baby and is also called the afterbirth. In some mothers, the placenta attaches low in the uterus and may be covering the cervix (entrance to the womb). This attachment can be seen on ultrasound scan after 16 weeks, it is called a placenta praevia. In most cases, the placenta moves upwards as the uterus enlarges.

Further information from: **RCOG - low lying placenta**



## **Plantar reflex**

The plantar reflex (sometimes called the Babinski reflex/sign) is a movement of the foot which occurs when the bottom of a mother's/baby's foot is stimulated with an instrument. There are two reflex responses; downward which is the expected response; and upward which may indicate problems within a mother's/baby's spinal cord or brain. (HSIB maternity team)

## **Platelets**

Platelets are specialised cells necessary for blood clotting. Platelet levels are measured with a full blood count (FBC) blood test. (HSIB maternity team)

## **Platelet transfusion**

Platelets are specialised cells necessary for blood clotting. Platelet levels are measured with a full blood count (FBC) blood test. When a mother's/baby's platelet levels are below the expected range they may need to be replaced with a transfusion of platelets. The platelets are given through a tube as an infusion into a mother's/baby's vein. (HSIB maternity team)

## **Pleural effusions**

(A build-up of fluid between a mother's/baby's lungs and the chest wall)

## **Pleurisy**

Pleurisy is inflammation of the tissue between a mother's/baby's lungs and ribcage (pleura).

Further information from: **NHS - Pleurisy**

## **Pneumonitis**

Pneumonitis is inflammation of the tissue in one or both lungs. Pneumonitis is often caused by a bacterial infection. It can also be caused by viruses, such as a coronavirus (COVID-19)

Further information from: **NHS - Pneumonia**

## **Pneumomediastinum**

A pneumomediastinum is air in the mediastinum.

The mediastinum is the space in the middle of the chest, between the lungs and around the heart.

Pneumomediastinum is uncommon. The condition can be caused by injury or disease. Most often, it occurs when air leaks from any part of the lung or airways into the mediastinum. (HSIB maternity team)

## **Pneumothorax**

A pneumothorax is a collapsed lung and occurs when air becomes trapped in the space between a mother's/baby's lung and chest wall. The air enters this space either from the lung or from outside the body. It is confirmed by a chest x-ray. (HSIB maternity team)

## Polycystic ovary syndrome

Polycystic ovary syndrome (PCOS) is a condition that affects how a mother's ovaries work. Symptoms may include;

- Irregular periods, indicating the ovaries are not releasing eggs as expected
- Excess body hair, indicating high levels of 'male' hormones
- Enlarged ovaries, caused by many fluid filled sacs (cysts) surrounding the eggs.

Further information from: **NHS - PCOS**

## Polyhydramnios

Polyhydramnios describes an excessive amount of amniotic fluid (water) present around a baby in the womb. The most common cause of polyhydramnios is maternal diabetes. Rarely it can be due to a blockage in a baby's gut or because of a build-up of fluid in a baby.

Sometimes no cause can be found.

Further information from: **NHS - Polyhydramnios**

## Polymerase chain reaction

Polymerase chain reaction (PCR) is a rapid testing tool, which may be used to diagnose conditions present from birth in a mother/baby, using a sample of her/their DNA. During the PCR process billions of copies of DNA are produced to allow examination and analysis of the sample. (HSIB maternity team)

## Population based growth charts

One method of monitoring the growth trajectory of a baby is to use a general population-based growth chart. The chart is used to plot the expected weight of a baby (estimated fetal weight (EFW)) at the time of an ultrasound scan.

Measurements plotted on the chart during the pregnancy may detect a change in the baby's growth trajectory suggesting they may be smaller or larger than expected. (HSIB maternity team)

## Population based symphysis-fundal height growth charts

One method of monitoring a mother's symphysis fundal height (SFH) growth trajectory is to use a population based SFH growth chart. The chart is used to plot the measurements of a mother's uterus (the SFH).

Measurements plotted on the chart during the pregnancy may detect a change in the SFH growth trajectory suggesting a baby may be smaller or larger than expected. (HSIB maternity team)

## Portal hypertension

The portal vein carries blood from a mother's bowel and spleen to her liver. Portal hypertension is a condition where there is an increase in the blood pressure in the portal vein, which may be caused by cirrhosis or scarring of a mother's liver.

Further information from: **British Liver Trust - portal hypertension**



### **Portal vein thrombosis**

The portal vein carries blood from a mother's intestine to her liver. A blood clot (thrombosis) may occur in the portal vein and block the blood flow to the liver. This can lead to altered liver function as well as bleeding from within the bowel. (HSIB maternity team)

### **Positive end expiratory pressure**

Positive end expiratory pressure (PEEP) is a positive pressure ventilation that is delivered during the breathing out phase of a mother's/baby's breathing cycle. It prevents the closure of the air sacs in the lungs and allows more time for oxygen exchange to take place. (HSIB maternity team)

### **Post COVID-19 syndrome (long COVID)**

Post COVID-19 syndrome describes a range of symptoms that may persist in a mother, for weeks or months, following infection by the COVID-19 virus. Further information from: **NHS - Post COVID-19 syndrome**

### **Post-partum haemorrhage**

Postpartum haemorrhage (PPH) is heavy bleeding after birth. Primary PPH is when a mother loses 500 ml or more of blood within the first 24 hours after birth. Primary PPH can be minor, where a mother loses 500–1000 ml, or major, where she loses more than 1000 ml. (HSIB maternity team)

### **Post-traumatic stress disorder**

Post-traumatic stress disorder (PTSD) is a term used to describe symptoms a mother/father may experience after stressful, frightening or distressing events. The symptoms may include nightmares, flashbacks and trouble sleeping. Further information from: **NHS - Post traumatic stress disorder.**

### **Postnatal adaptation syndrome**

Postnatal adaptation syndrome can occur when a mother has been prescribed antidepressants in pregnancy. When the baby is born they are no longer exposed to medication from their mother's blood stream and may experience some withdrawal symptoms. The symptoms may include breathing and feeding difficulties, jitteriness, restlessness, shivering, poor temperature control, tremors, sleep problems, seizures, jaundice or low blood sugar levels. (HSIB maternity team)

### **Postpartum/puerperal psychosis**

Postpartum/puerperal psychosis is a serious mental health illness that can affect a mother after giving birth. It is different from the usual mood changes many mothers experience after birth, which typically only last a few days. Postpartum psychosis usually starts within two weeks of a baby's birth and is a medical



emergency. It is more common in mothers who have been diagnosed with other mental health disorders or have a family member that has experienced postpartum psychosis, although it may affect any mother.

Further information from: **NHS - Postpartum/puerperal psychosis**

### **Postural hypotension**

Postural hypotension, also known as orthostatic hypotension, occurs when there is an abnormal drop in a mother's blood pressure when she changes from a lying to an upright (sitting or standing) position. Some mothers may experience symptoms like feeling sick, dizziness or light-headedness and fainting. There are lots of reasons a mother may have postural hypotension including dehydration, pregnancy, some heart conditions, certain medications or medical conditions which have affected the nerves controlling a mother's blood pressure (neuropathic).

Further information from: **NHS - Hypotension**

### **Pre and post ductal oxygen saturations**

Measurement of pre and post ductal oxygen saturation may indicate abnormalities in a baby's circulation associated with congenital heart disease or secondary to high blood pressure within a baby's lungs (called pulmonary hypertension). Pre ductal oxygen saturation is measured by placing a probe on a baby's right hand. Post ductal saturation is measured by placing a probe on either of a baby's feet. A large difference in oxygen saturation between a baby's right arm and other sites may indicate an abnormality in a baby's circulation or breathing such as congenital heart disease or pulmonary hypertension. Further clinical examination may be performed to make a diagnosis. (HSIB maternity team)

### **Precipitate labour**

Precipitate labour describes the rapid progression of labour leading to birth of a baby less than three hours from the start of contractions. (HSIB maternity team)

### **Precordial thump**

A precordial thump is a strike delivered to a mother's chest using a tightly closed fist. It is used in extreme emergency conditions in the absence of an electric defibrillator. The aim of a precordial thump is to generate energy which may be enough to correct the abnormal heart rhythm which has caused the cardiac arrest. (HSIB maternity team)

### **Pre-eclampsia**

Pre-eclampsia is a condition that typically occurs after 20 weeks. It is a disease that is detected with a combination of raised blood pressure (hypertension) and one or more new-onset conditions including protein in the urine (proteinuria), abnormalities in liver, kidney or blood clotting function, severe headache, persistent vision problems or evidence of reduced placental function such as reduced growth of a baby. There may be no symptoms. The exact cause of pre-eclampsia is not understood. Pre-eclampsia is common, affecting between four

and 16 in 200 mothers during pregnancy. It is usually mild and normally has very little effect in pregnancy. In a small number of cases, it can develop into a more serious illness. Severe pre-eclampsia (which around one in 200 mothers, develop during pregnancy) can be life-threatening for both mother and baby. (Adapted from RCOG, 2012)

Further information from: **NHS - pre-eclampsia**

### **Pregnancy of unknown location**

A pregnancy is described as being of unknown location when a mother has had a positive pregnancy test and the pregnancy or pregnancy tissue is not seen during an ultrasound scan. (HSIB maternity team)

### **Pre-labour rupture of membranes at term**

Pre-labour rupture of membranes at term is defined as a rupture of membranes (waters breaking) prior to the onset of labour, at greater than 37+0 weeks. 60% of mothers with pre-labour rupture of membranes will go into labour within 24 hours. The risk of serious neonatal infection is 1% as opposed to 0.5% for mothers with intact membranes.

Further information from: **NHS - pre-labour rupture of membranes at term**

### **Pre-oxygenation**

Pre-oxygenation is when oxygen is given to a mother using a tight fitting face mask. This is a safety measure used to increase her body's oxygen levels before a general anaesthetic.

Further information from: **Obstetric Anaesthetist Association - Caesarean section**

### **Premature ventricular contractions**

Premature ventricular contractions (PVCs), are extra heartbeats that begin in one of the heart's two lower pumping chambers (ventricles). These extra heartbeats disrupt a mother's regular heart rhythm and may cause a sensation of a fluttering or a skipped beat in her chest. (HSIB maternity team)

### **Preterm birth**

Preterm birth is defined as babies born before 37 weeks of pregnancy are completed. (HSIB maternity team)

### **Preterm prelabour rupture of membranes**

This is when the waters break before 37+0 weeks. After the waters have broken there is an increased chance of infection and that a baby will be born early. (HSIB maternity team)

### **Preterm prelabour rupture of membranes**

This is when the waters break before 37+0 weeks. After the waters have broken there is an increased chance of infection and a chance that a baby will be born early. (HSIB maternity team)

## **Preterminal CTG**

A preterminal CTG describes a baby's heart rate pattern that might be seen in the minutes leading up to a baby's death. (HSIB maternity team)

## **Prevotella bivia**

Prevotella bivia is a type of bacteria that may be found in a mother's vagina. This is called 'colonisation' (a mother is said to be a 'carrier') and is usually harmless. In some mothers it may cause symptoms of pelvic inflammatory disease (PID), or bacterial vaginosis (BV). If bacteria get into the wrong place, such as into a mother's uterus following the waters breaking, it may cause an infection in an unborn baby. (HSIB maternity team)

## **Primary care services**

Primary care services provide the first point of contact for a mother/baby in the healthcare system, acting as the 'front door' of the NHS. Primary care includes general practice, community pharmacy, dental, and optometry (eye health) services. (HSIB maternity team)

## **Procalcitonin (please delete the highlighted section if not COVID-19)**

Procalcitonin is a protein made by a mother's/baby's body during the production of the thyroid hormone calcitonin. Procalcitonin may also be produced by a mother's/baby's body when they have sepsis or a bacterial infection. In mothers with COVID-19, the levels of procalcitonin do not significantly increase unlike other markers for infection. Measurement of procalcitonin levels can help guide clinicians whether antibiotics are needed to treat a mother/baby.

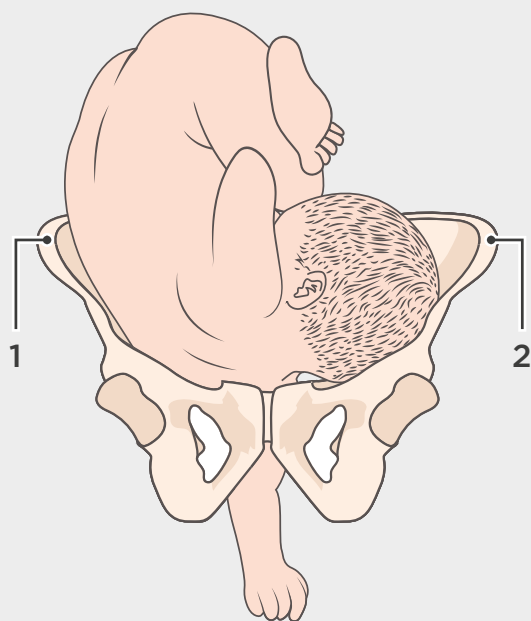
## **Professional midwifery advocate**

The role of a professional midwifery advocate (PMA) is to support midwives in their clinical practice and advocate for mothers. This is done through restorative clinical supervision, advocacy, education and development and supporting quality improvement. (HSIB maternity team)

## **Progesterone**

(a hormone which encourages a mother's uterus to prepare for and maintain her pregnancy)

## Prolapsed arm (to be used with the oblique/transverse lie definition)



1. Mother's right
2. Mother's left

A prolapsed arm may occur when a baby is in the oblique/transverse lie. This is when a baby's arm slips down in front of their head after the waters have broken. The arm can then come through the open cervix (entrance of the womb). (See diagram). It usually happens during labour; it can occur when the waters break before labour starts. A prolapsed arm is an emergency for a baby and requires caesarean birth. (HSIB maternity team)

### Prolonged rupture of membranes

Prolonged rupture of membranes (PROM) is when the waters have broken more than 24 hours before birth.

This could happen by themselves; or when the waters are released during a vaginal examination by a midwife or doctor (also known as artificial rupture of membranes, or ARM).

Further information from: **NHS - pre-labour rupture of membranes at term**

### Prone positioning

Prone positioning (proning) refers to when a mother/baby is turned on to their front. This may happen whilst they are awake, or whilst sedated and on oxygen therapy, or whilst being mechanically ventilated. The procedure may be considered when a mother's/patient's/baby's with severe lung inflammation known as acute respiratory distress syndrome (ARDS) is not getting enough oxygen. In some severe cases of ARDS, proning a mother/baby may improve their chance of survival (World Health Organisation, 2020). There is little evidence about the use of proning during pregnancy, guidance is available to support how this may be undertaken (Tolcher MC, McKinney JR, Eppes CS et al, 2020).

By turning a mother/baby on their front, it is hoped that more oxygen will enter their blood when it passes through the lungs. This is thought to occur due to a change in the lung's mechanics and improved drainage of secretions from the

mother's/patient's/baby's airways in the prone position.

The procedure can sometimes lead to a worsening in a mother's/patient's/baby's condition requiring the mother's/patient's/baby's to be turned back. The mother's/patient's/baby's is/are usually placed in the prone position for between 16-20 hours at a time. (HSIB maternity team)

### **Prostaglandin infusion**

A prostaglandin infusion can be given to a baby with a heart condition, shortly after their birth. The prostaglandin infusion may prevent the ductus arteriosus (arterial duct) closing after birth and allow oxygen-rich blood to mix with oxygen-poor blood which may help stabilise a baby's condition whilst cardiac management is planned. (HSIB maternity team)

### **Prostaglandins for induction of labour**

There are several medicines which can be considered for induction of labour. They are designed to prepare the cervix (neck of the womb) for labour and are often the first stage of an induction of labour process. The medication is given in a vaginal pessary, gel or tablet preparation which is inserted into the top of the vagina.

Further information from: **NICE - induction of labour**

### **Protection order**

A protection order may be issued by a court of law to prevent a person causing harm to another person. (HSIB maternity team)

### **Protein creatinine ratio**

(a way to quantify the amount of protein in a urine sample)

### **Protein S deficiency**

Protein S is a natural anticoagulant (blood thinner) found in a mother's blood. If there is not enough protein S in a mother's blood, clots may be more likely to form in her veins. Protein S deficiency is usually inherited and present from birth and may be associated with other conditions such as liver disease or diabetes. (HSIB maternity team)

### **Proteinuria**

(The presence of protein in the urine.)

### **Prothrombin time**

(a blood test that measures how long it takes a mother's/baby's blood to clot).

### **Prune belly syndrome**

Prune belly syndrome is a condition characterized by a lack of abdominal muscles, causing the skin on the abdominal area to wrinkle and appear "prune-like"; undescended testicles in males; and urinary tract malformations. (HSIB maternity team)



## **Pruritic urticarial papules and plaques of pregnancy/Polymorphic eruption of pregnancy**

Pruritic urticarial papules and plaques of pregnancy (PUPPP), sometimes known as polymorphic eruption of pregnancy (PEP), is a relatively common skin disorder. Symptoms may include an itchy rash that begins on the abdomen, particularly within stretch marks (striae). It most usually develops during late pregnancy (third trimester) and can also start immediately after the baby is born. (HSIB maternity team)

## **Pseudoexanthoma elasticum**

Pseudoxanthoma elasticum (PXE), is a rare genetic disorder that causes a build-up of calcium and other minerals in the elastic fibres of a mother's/baby's connective tissue. The build-up of minerals may affect a mother's/baby's skin, eyes and blood vessels.

Usually, mothers with PXE have an uncomplicated pregnancy and birth. They may have a higher chance of heavier bleeding after birth, perineal tears and stretch marks on their abdomen. (HSIB maternity team)

## **Pseudohypoparathyroidism**

Pseudohypoparathyroidism is a genetic disorder in which a mother's/baby's body is unable to respond to the parathyroid hormone. Parathyroid hormone helps control calcium, phosphorous, and vitamin D levels in the bones and blood. In pseudohypoparathyroidism, low calcium levels and high phosphate levels in the blood can affect bone growth and a mother/baby may be shorter in height, have a round face, a short neck and shortened bones in the hands and feet. Symptoms of pseudohypoparathyroidism may include;

- **Headaches**
- **Weakness**
- **Lethargy**
- **Cataracts**, blurred vision or hypersensitivity to light.

(HSIB maternity team)

## **Pseudomonas**

Pseudomonas is a type of bacteria which may cause an infection in a mother/baby. Pseudomonas is often found growing on skin and in moist parts of the body. (HSIB maternity team)

## **Pseudo sac**

A pseudo sac is formed from uterine fluid and may mimic the appearance of a fertilised gestational sac in early pregnancy. When seen by USS in the presence of a positive pregnancy test it may lead to clinicians missing an ectopic pregnancy, or a pregnancy in another part of a divided uterus. (HSIB maternity team)

## **Pseudo-sinusoidal heart rate pattern**

A pseudo-sinusoidal heart rate pattern on CTG monitoring resembles a pathological heart rate pattern (sinusoidal pattern). It rarely lasts longer than 30 minutes and does not require intervention. (HSIB maternity team)

## **Pseudothrombocytopenia**

Pseudothrombocytopenia occurs when clumping of the platelets occurs in the testing laboratory, mimicking a low platelet count.

## **Psoriatic arthritis**

Arthritis is a condition which causes a mother's joints to become inflamed (swollen) and painful. Psoriatic arthritis is a type of arthritis that may affect people who have a skin condition called psoriasis. Psoriasis is a skin condition that may cause a mother's/baby's skin to become red, with flaky or crusty areas. Psoriatic arthritis causes a mother's joints to become swollen, stiff and painful. Like psoriasis, it is usually a long-term condition, that may cause damage or deformity and surgery may be needed.

Further information from: **NHS - Psoriatic arthritis**

## **Pudendal block**

A pudendal block is an injection of local anaesthetic into a mother's pudendal nerve (a nerve in the pelvis) which is reached through her vagina. The pain relief is felt in the vaginal and perineal area. It may be used during an assisted vaginal birth. (HSIB maternity team)

## **Puerperal sepsis**

Puerperal sepsis is any bacterial infection of the genital tract (uterus and birth canal) which occurs after the birth of a baby. It is usually more than 24 hours after birth before the symptoms and signs appear. If a mother has had prolonged rupture of membranes or a prolonged labour, then the disease may become evident earlier.

Further information from: **WHO - managing puerperal sepsis**

## **Pulmonary artery catheterisation**

The pulmonary artery is a blood vessel that carries deoxygenated blood from the right side of a mother's heart to her lungs. During pulmonary artery catheterisation a tube, called an intravascular catheter, is inserted through a vein close to a mother's heart into a pulmonary artery. (HSIB maternity team)

## **Pulmonary hypertension**

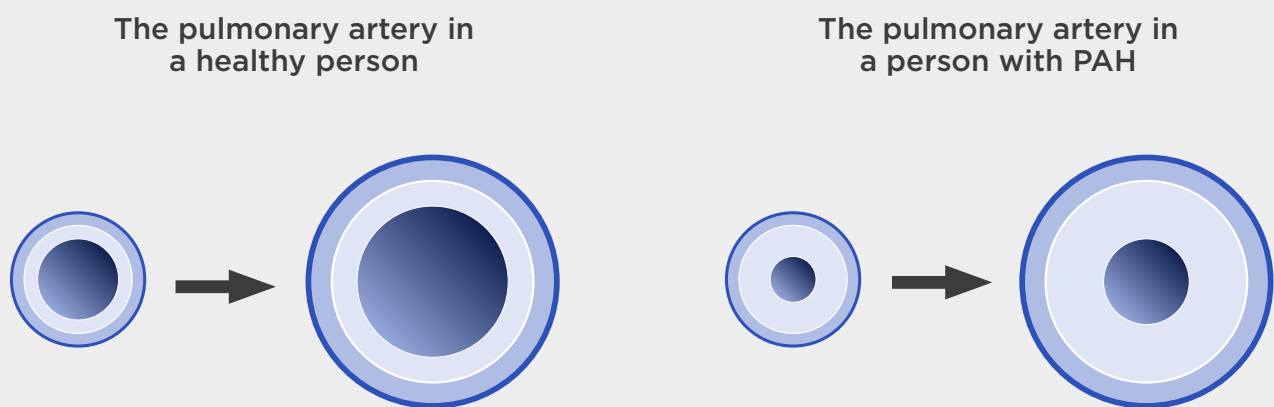
Pulmonary hypertension is a condition where the blood pressure in the blood vessels (called the pulmonary arteries) that supply a mother's lungs is higher than expected. This causes the pulmonary arteries to become thick and stiff, which means that they are less able to expand to allow blood to move through. The

reduced blood flow makes it harder for the right side of the heart to pump blood to the lungs. This results in the right side of a mother's heart having to work harder to pump blood and it can gradually become weaker and damaged. Further information from: **NHS - pulmonary hypertension**

### **Pulmonary hypoplasia**

(when a baby's lungs have not developed completely in the womb). (HSIB maternity team)

### **Pulmonary artery hypertension**



Pulmonary artery hypertension (PAH) is a rare condition that causes high blood pressure in the blood vessels connecting a mother's heart and lungs (the pulmonary arteries). The heart pumps oxygen-poor blood to the lungs so the blood can take up oxygen. During exercise, the blood vessels carrying blood to the lungs stretch to allow more blood through. In a mother with PAH, the walls of the pulmonary arteries may be stiff, thicker or scarred and so they are less able to stretch.

As a result, the heart has to work harder to pump blood to the lungs and over time will work less effectively. PAH can be treated to slow progression of the condition and symptoms may improve.

Further information from: **Pulmonary artery hypertension UK**

**For maternal death cases please use the box below:**

### **Pulmonary embolism**

Pulmonary embolism is a condition in which a blood vessel in the lung(s) gets blocked by a blood clot. Common symptoms include shortness of breath, cough and chest pain. Sometimes, this may cause a mother's blood pressure to drop, loss of consciousness to occur and potentially even death of a mother.

Further information from: **NHS - PE**



## **Pulmonary embolism**

A condition in which a blood vessel in the lung(s) gets blocked by a blood clot. Common symptoms include shortness of breath, cough and chest pain. Further information from: **NHS - PE**

## **Pulmonary haemorrhage**

(bleeding into the lungs)

## **Pulmonary oedema**

Pulmonary oedema occurs when an excess of body fluids build up in a mother's lungs, making it difficult to breathe. It may be caused by heart failure, pulmonary embolism, acute or chronic kidney disease, or from lung damage from smoking or other poisons. (HSIB maternity team)

## **Pulmonary stenosis**

Pulmonary valve stenosis describes a condition where the pulmonary valve within a mother's/baby's heart is narrower than usual. This means the right side of the heart has to work harder to move blood through the valve to the lungs. Further information from: **NHS - pulmonary valve stenosis**

## **Pulsatility index**

The pulsatility index (PI) is a measure of how well blood is flowing from a baby's placenta through the umbilical cord. It is measured using ultrasound. If blood is flowing freely and continuously down the umbilical cord to the baby, the placenta is considered to be healthy. (HSIB maternity team)

## **Pulse index contour continuous cardiac output line**

A pulse index contour continuous cardiac output (PiCCO) line is a small thin tube which may be inserted into a mother's/baby's artery. The line is attached to a machine which measures and analyses the mother's/baby's cardiac (heart) output. (HSIB maternity team)

## **Pulseless electrical activity**

Pulseless electrical activity (PEA) is where there is electrical activity in a mother's/baby's heart, yet the heart does not contract effectively. This means blood is not pumped around the body and there is no detectable pulse. (HSIB maternity team)

## **Pulseless electrical activity cardiac arrest**

A pulseless electrical activity (PEA) cardiac arrest describes a cardiac arrest that cannot be treated with an electrical device to shock the heart. (HSIB maternity team)

## **Pulseless ventricular tachycardia**

Pulseless ventricular tachycardia is a condition where the ventricles (lower chambers) of a mother's/baby's heart beat too quickly. This may not allow

enough time for the chambers of a mother's/baby's heart to fill with blood causing an insufficient supply of blood to the mother's/baby's body. The mother's/baby's pulse is not palpable due to the reduced amount of blood being moved from the heart around the body. (HSIB maternity team).

### **Pulse pressure**

Pulse pressure is the difference between a mother's systolic and diastolic pressure. The normal range of pulse pressure is between 40 and 60 mmHg. A low pulse pressure can be related to reduced cardiac function. A high pulse pressure can be related to cardiovascular disease. (HSIB maternity team)

### **Pupil assessment**

Pupil assessment, sometimes called a pupillary assessment, is a neurological examination that evaluates the size, equality and reactivity of a mother's/baby's pupils to provide clinical information. A pupil that does not react to light in the usual way during the assessment may indicate a problem with a mother's/baby's nervous system. (HSIB maternity team)

### **Purple line**

(a purple/red line that starts at the anus and extends upwards as labour progresses)

### **Pyelonephritis**

(an infection caused by bacteria traveling from a mother's bladder to one or both of her kidneys)

### **Pyeloplasty**

A pyeloplasty is an operation which involves removing a blockage or narrowing in the area where a mother's kidney joins to the ureter. The blockage or narrowing may cause a build-up of urine in the kidney. Relieving the blockage or narrowing enables a mother's urine to flow freely from the kidneys, via the ureters and into the bladder. (HSIB maternity team)

### **Pyrexia of unknown origin**

Pyrexia of unknown origin (PUO) is defined as a raised body temperature (fever), of 38.3C or greater, for at least three weeks with no identified cause (after three days of hospital evaluation or three outpatient visits). Common causes are infections, neoplasms (new and abnormal growths), and connective tissue disorders.

For more information: **BMJ – Pyrexia of unknown origin**



### Quadruple test

A quadruple test is a screening test for Down's syndrome which may be performed between 14-20 weeks of pregnancy. The quadruple test can be performed if it was not possible to obtain a nuchal translucency measurement, or a mother is more than 14 weeks into her pregnancy. It is not quite as accurate as the combined test.

Further information from: **NHS - antenatal screening**

# R

## **Random blood sugar test**

A random blood sugar test measures the level of sugar in a mother's blood at the time the sample is taken. (HSIB maternity team)

## **Randomised embedded multifactorial adaptive platform trial for community-acquired pneumonia**

In a traditional randomised embedded multifactorial adaptive platform (REMAP) trial, a patient may be allocated to receive one treatment from a short list of alternatives (typically one or two). The aim of the REMAP trial for community-acquired pneumonia (CAP) (REMAP-CAP) is, over time, to evaluate a range of interventions to improve outcomes for patients with community acquired pneumonia (CAP).

REMAP-CAP started during the COVID-19 pandemic, providing a platform to evaluate treatments for patients with CAP resulting from COVID-19 infection. Participating hospitals can enrol patients in the trial with their consent, to evaluate existing treatment as well as new approaches. Patients are randomly assigned to receive one or more intervention.

Further information from: **REMAP-CAP website**

## **Rapid infusion system**

Rapid infusion systems are designed to warm and actively administer large fluid volumes quickly and may be lifesaving in rapid and uncontrolled haemorrhage. (HSIB maternity team)

## **Rapid R14 whole exome sequencing**

Rapid (R14) whole exome sequencing is a blood test used to analyse for specific genetic disorders in acutely unwell babies (for example epilepsy). Genetic code is embedded within a mother's/baby's DNA, which can be obtained from a blood or tissue sample. The genetic code can be examined and checked for changes that could suggest a genetic disorder. This process is known as sequencing. In exome sequencing, the parts of a mother's/baby's genetic code known as exons are examined. (HSIB maternity team)

## **Raynaud's disease**

Raynaud's disease affects a mother's circulation. It may cause some areas of her body, such as her fingers and toes, to change colour when they are cold or stressed. (HSIB maternity team)

## **Re-canalisation**

Re-canalisation occurs when new channels or paths are formed through an obstruction such as a blood clot. (HSIB maternity team)

## **Rebozo sifting**

Rebozo sifting is a technique developed by traditional birth attendants with the aim of altering the position of a baby using a shawl or scarf around a mother's body. (HSIB maternity team)

## **Rectus sheath**

(a fibrous layer of tissue which encloses the muscles of a mother's/baby's abdominal wall)

## **Rectus sheath catheter**

A rectus sheath catheter is a soft sterile tube which can be inserted into a mother's abdominal wall after surgery. Local anaesthetic is given through the catheter to help reduce a mother's pain. (HSIB maternity team)

## **The recovery position**

The recovery position may be used to keep a mother's airway clear and open when they are unconscious and breathing. (HSIB maternity team)

## **Red cells**

(the oxygen-carrying cells in blood)

## **Red cell isoimmunisation**

In some pregnancies, mothers and babies have incompatible blood groups. This may lead to a mother developing antibodies in her blood, which can cross the placenta and affect the baby. Examples of these antibodies are Anti D, Anti C, Anti E, Kell, Kidd and Duffy. The chance of a problem arising from red cell antibodies depends on many things including which antibody a mother has formed, the level of this antibody and whether or not she has had a previous pregnancy with same problem. Babies born to mothers with low levels of antibody rarely experience significant problems such as anaemia and may occasionally have jaundice in the newborn period. Where red cell antibodies are identified, mothers and babies are monitored closely for complications. (HSIB maternity team)

## **Remifentanyl patient-controlled analgesia**

Strong pain killing medicines (opioids) can be given directly into a vein with a fast effect, using a pump that a mother controls herself by pressing a button attached to the pump. Remifentanyl is an opioid medicine.

The body breaks down remifentanyl very quickly, so the effects of each dose do not last long. This opioid has a strong effect on pain. It can slow down a mother's breathing, so the mother's respiratory rate needs to be monitored carefully. Its effects can be reversed quickly, and it does not affect a baby.

Further information from: **Obstetric Anaesthetist Association - PCA**



## Remote consultation (General practice only)

A remote consultation describes a consultation between a mother and a staff member that is not face to face. The consultation may be online, by video or telephone call.

Further information from: **Royal College of General Practitioners**

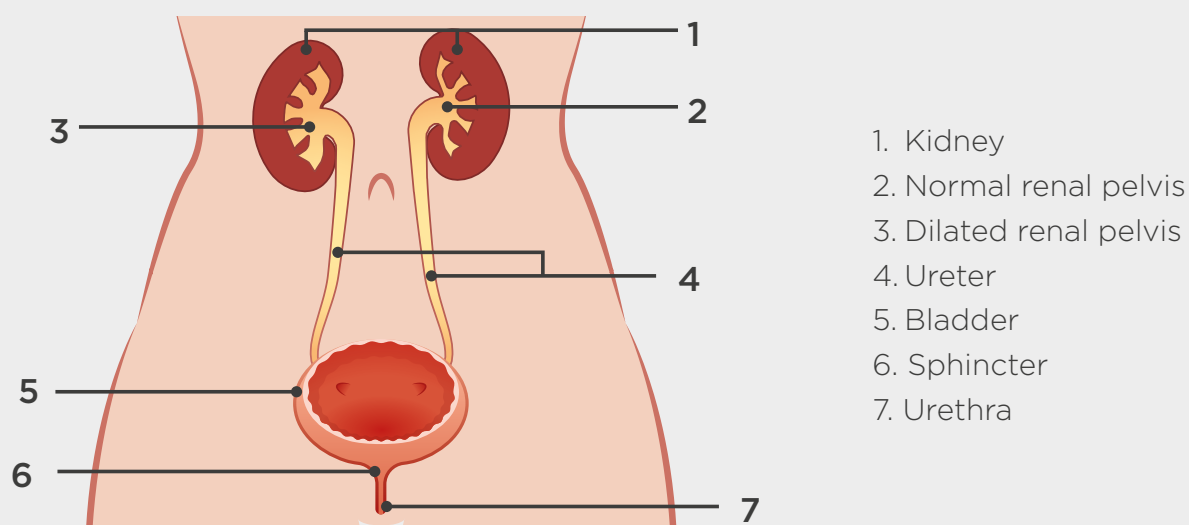
## Renal agenesis

Renal agenesis describes a condition, present from birth, where a mother's/ baby's kidneys have not developed as expected. Usually, a baby is born with two kidneys. If one of a mother's/baby's kidneys does not develop and they are born with one kidney), this is called unilateral renal agenesis. Unilateral renal agenesis does not usually cause health problems.

Sometimes, as the kidney needs to work harder to do the work of two kidneys, there may be an increased chance of a mother/baby having high blood pressure. In addition, a kidney may not work as expected and this may lead to chronic kidney disease.

If both of a baby's kidneys do not develop then this is called bilateral renal agenesis, and the condition is unsurvivable. (HSIB maternity team)

## Renal pelvic dilatation



The renal pelvis is the part of a baby's kidney that is located at the top of the ureter (the tube that carries the urine from the kidney to the bladder). Renal pelvic dilatation (RPD) is a condition that occurs when there is a build-up of too much urine in the renal pelvis. RPD is a common condition in babies before they are born and may be seen during an ultrasound scan (USS). If RPD is seen, a mother will be offered a rescan. RPD resolves in most babies before they are born. Some babies require paediatric follow-up after birth if RPD is still present. (HSIB maternity team)

## Renal replacement therapy (dialysis)

When a mother's kidneys stop working properly, renal replacement therapy may be used to remove waste products and excess fluid from her blood. Dialysis may involve diverting a mother's blood to a machine to be cleaned before returning it to her body. (HSIB maternity team)

## Resource escalation action plan

|                  |                  |
|------------------|------------------|
| REAP level one   | Steady state     |
| REAP level two   | Moderate state   |
| REAP level three | Severe state     |
| REAP level four  | Extreme pressure |

A resource escalation action plan (REAP) is a plan used by ambulance services with four levels of categorisation. A REAP corresponds to an operational pressure escalation plan (OPEL) which may be used by acute NHS organisations to describe pressures on the service and the possibility of not being able to meet expected demands. Level one is the steady state and this may rise to level four, indicating extreme pressures on a service. (HSIB maternity team)

## Respiratory acidosis

Respiratory acidosis is a condition that occurs when a mother's/baby's lungs are unable to remove all of the carbon dioxide the body produces. This causes the blood to become too acidic which may be dangerous for a mother/baby. (HSIB maternity team)

## Respiratory distress syndrome

Respiratory distress syndrome (RDS) is a breathing problem which is commonly seen in premature babies with immature lungs and can sometimes occur in full term babies. In term babies, this may be caused by infection or inflammation. (HSIB maternity team)

## Resting tone

(the muscle tone of a mother's uterus between contractions)

## Restitution and rotation

When a baby's head is born it is usually facing a mother's back. Restitution is the term used for the movement the baby makes to turn to face the mother's side. Inside a mother's birth canal, a baby's body has also turned to the side, this is called internal rotation. This is part of the expected process of spontaneous birth. (HSIB maternity team)

## Restless legs syndrome

The main symptom of restless legs syndrome is an overwhelming urge to move the legs. The sensation is often worse in the evening or at night. Occasionally, the arms are affected too.

The symptoms can vary from mild to severe. In severe cases, restless legs syndrome can be very distressing and disrupt a person's daily activities. In the majority of cases, there is no obvious cause of restless legs syndrome.

Further information from: **NHS - restless legs syndrome**

### **Resuscitaire**

A piece of equipment which combines a warming therapy platform along with the additional equipment required for managing neonatal clinical emergencies and resuscitation. (HSIB maternity team)

### **Resuscitation medicines**

Resuscitation medicines may be given into a mother's/baby's vein (intravenous) or into a mother's/baby's bone (intraosseous) when an intravenous line cannot be established. (HSIB maternity team)

### **Resuscitative hysterotomy**

A resuscitative hysterotomy is a procedure that may be performed either during or just before a maternal cardiac arrest. The procedure involves surgically opening a mother's abdomen and uterus to birth the baby. The aim of the procedure is to increase the chance of successfully resuscitating a mother. (HSIB maternity team)

### **Retained placenta**

A retained placenta describes when a placenta has not been delivered within 30 minutes of a baby's birth. A retained placenta may cause severe bleeding or infection. (HSIB maternity team)

### **Retained products of conception**

Any pregnancy tissue that remains in a mother's uterus after termination of pregnancy/miscarriage/vaginal or caesarean birth. (HSIB maternity team)

### **Retroplacental haemorrhage**

A retroplacental haemorrhage is bleeding from blood vessels where the placenta is attached. This may lead to a partial or total separation of the placenta from a mother's womb. It may be associated with pain and bleeding. Where there is no pain or bleeding it may be referred to as silent and only noted after examination of the placenta after birth. (HSIB maternity team)

### **Return of spontaneous circulation**

Return of spontaneous circulation (ROSC) is when, following cardiac arrest (when the heart stops), a mother's heart begins to beat again; this may be sustained or may be transient. Signs of ROSC include breathing, coughing, or movement and a palpable pulse or a measurable blood pressure.

Cardiopulmonary resuscitation, and defibrillation where indicated, increase the chances of ROSC. (HSIB maternity team)





## Reverse breech extraction

Reverse breech extraction is a technique used during a caesarean birth if a baby's head is deeply impacted in a mother's pelvis and cannot be birthed by the usual method of lifting the head out of the pelvis. In a reverse breech extraction, the buttocks or feet of a baby are birthed first, followed by the baby's body and then their head (HSIB maternity team)

## Reversible causes of cardiac arrest

(a cause for the heart stopping which may be corrected with treatment)

## Rhesus disease and anti-D immunoglobulin

Rhesus disease is a condition where antibodies in a mother's blood destroy her baby's blood cells. Rhesus disease does not harm a mother, it can cause a baby to become anaemic and develop jaundice. Rhesus disease is uncommon these days because it can usually be prevented using injections of a medication called anti-D immunoglobulin. If a mother's blood group is RhD negative, she will be offered injections of anti-D immunoglobulin at certain points in her pregnancy when she may be exposed to a baby's red blood cells. This anti-D immunoglobulin helps to remove the RhD fetal blood cells before they can cause sensitisation. A blood test known as the Kleihauer test is taken from RhD negative mothers after birth to check if a dose of anti-D immunoglobulin larger than the standard postnatal dose is required.

Further information from: **NHS - rhesus disease**

## Rheumatoid arthritis

Rheumatoid arthritis is an autoimmune disease which occurs when a mother's immune system (which usually fights infection) attacks the cells that line her joints. The main symptoms of rheumatoid arthritis are joint pain, swelling and stiffness. It may also cause more general symptoms and inflammation in other parts of the body.

Further information from: **NHS - rheumatoid arthritis**

## The rhombus of Michaelis

The rhombus of Michaelis is a kite shaped area in a mother's lower back and pelvis. During the pushing phase of labour this area may be seen to rise as the mother's sacrum (the large part of her tailbone) moves to allow a baby through her pelvis. (HSIB maternity team)

## Rib pain in pregnancy

Rib pain (also known as rib flare) during pregnancy can be common. Causes of rib pain may include:

- the pressure of a growing baby on a mother's internal organs and ribs.
- hormonal changes that soften a mother's muscles and ligaments during pregnancy, allowing more movement of the rib cage
- changes in the baby's position, or movement of the baby in the rib area.



- increase in a mother's breast size putting additional stress onto the ribs.
- expanding rib cage can lead to inflammation of the cartilage at the end of each rib.

If the pain is severe or persistent it may require further investigation. (HSIB maternity team)

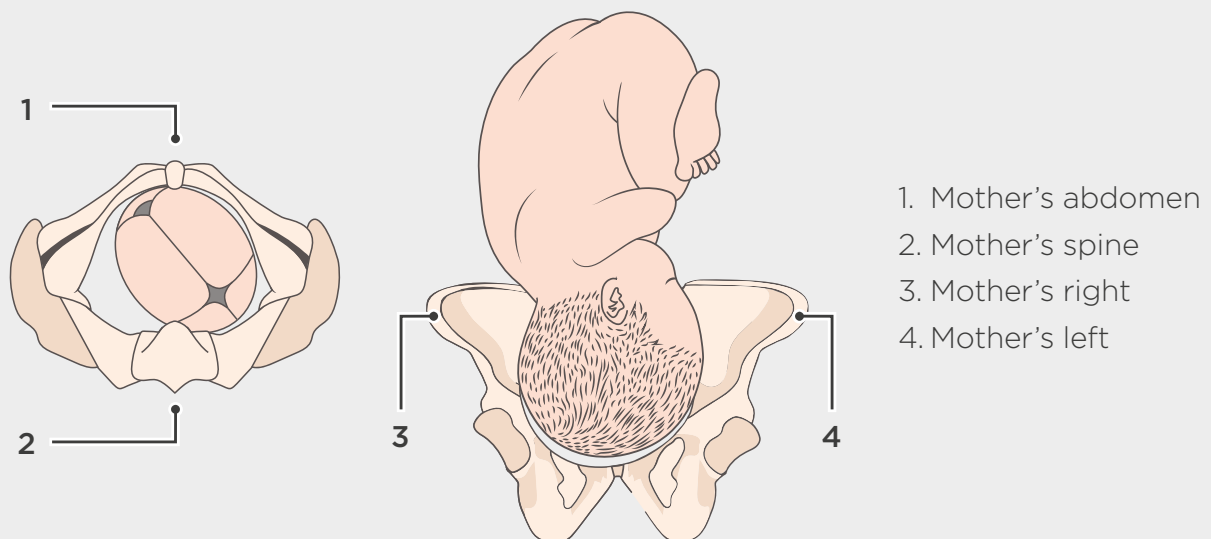
### Right aortic arch

The aorta is the main blood vessel leaving a mother's/baby's heart and carries oxygen, around the body. The aorta forms an arch in the chest and usually travels inside the chest on the left side. In some people the arch of the aorta may turn to the right and travel down the chest on the right side. This is known as a right aortic arch. A right aortic arch may be an isolated finding and some mothers/babys may have additional heart problems that may be present before birth. A right aortic arch may present after a baby's birth with noisy breathing or difficulty swallowing. Surgery to correct the problem may be needed. (HSIB maternity team)  
Further information from: **GOSH - right aortic arch**

### Right heart strain

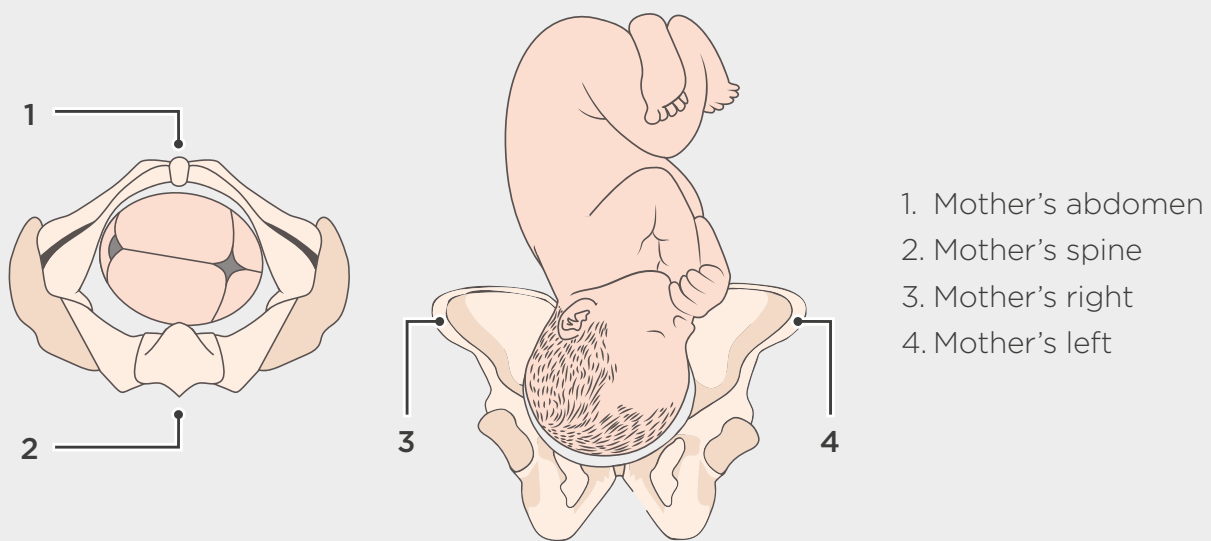
The right side of the heart pumps blood to the lungs. In right heart strain, the right side of the heart finds it difficult to pump blood either due to resistance in the lungs (such as a pulmonary emboli) or damage to the heart (such as a myocardial infarction). (HSIB maternity team)

### Right occipito anterior position



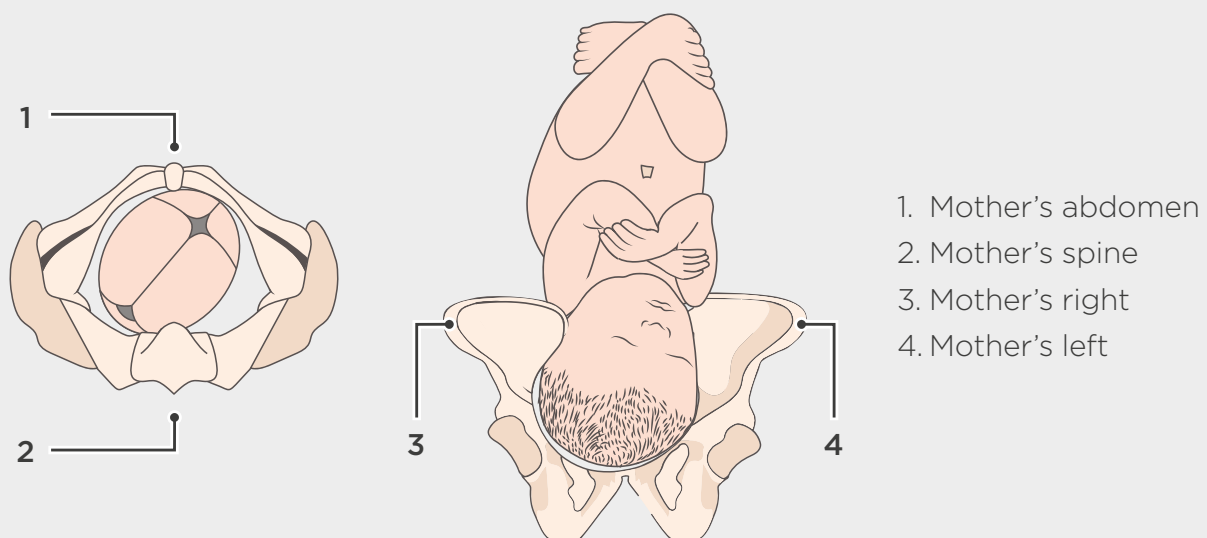
Right occipito anterior (ROA) is when a baby is head down and the back of a baby's head is against a mother's abdomen to her right side. (HSIB maternity team)

## Right occipito transverse position/Right occipito lateral position



Right occiput transverse (ROT)/Right occiput lateral (ROL) is where a baby is head down and the back of a baby's head is against the mother's right side. (HSIB maternity team)

## Right occipito posterior position



Right occipito posterior (ROP) is where a baby is head down and the back of a baby's head is against the right side of a mother's back. (HSIB maternity team)

## Right sacro anterior position

Right sacro anterior (RSA) position is when a baby is bottom down with their back against a mother's abdomen to her right side. (HSIB maternity team)

### **Right sacro posterior position**

Right sacro posterior (RSP) position is where a baby is bottom down and the back of a baby's bottom is against the right side of a mother's back. (HSIB maternity team)

### **Right sided ventricular hypertrophy**

Right sided ventricular hypertrophy is a condition where there is thickening in the walls of the right ventricle (pumping chamber to the lungs) of a mother's heart. This may indicate chronic (longstanding) heart failure. (HSIB maternity team)

### **Rigor mortis**

Rigor mortis describes the stiffening of a mother's/baby's muscles which occurs after death. (HSIB maternity team)

### **Risk register**

A risk register is a document used by a trust to identify issues that need addressing and plan actions to reduce or resolve the issue. (HSIB maternity team)

### **Rituximab**

Rituximab is an antibody therapy medicine which attaches to blood cell membranes and has therapeutic potential in catastrophic antiphospholipid syndrome. (HSIB maternity team)

### **Rooting reflex**

When a healthy newborn baby's cheek or lip is touched they will automatically turn their face towards the touch and make sucking (rooting) movements with their mouth. This rooting reflex contributes to early successful breastfeeding. Babies whose mothers have received particular medications in labour (such as opioids) may not have this reflex initially. (HSIB maternity team)

### **Round ligament pain**

Many mothers experience round ligament pain in their pregnancy. As a mother's uterus grows, it stretches the ligament which supports it in the pelvis. The pain may be described as a sharp pain felt in the lower abdomen and is considered harmless. (HSIB maternity team)

### **Routine axial traction**

(normal process of birthing a baby's shoulders, keeping a baby's head in line with their spine)

### **'Rule of 3' for an acute fetal bradycardia**

An acute fetal bradycardia is the sudden slowing of a baby's heart rate (below the expected range) for at least 3 minutes. This may result from a baby having an interrupted supply of oxygen and, if the acute bradycardia continues, urgent intervention is required.



The intervention can be based on the 'rule of 3':

- **3 minutes** – call for help
- **6 minutes** – move to the operating theatre
- **9 minutes** – prepare to accelerate the birth of the baby
- **12 minutes** – start to accelerate the birth of the baby
- **15 minutes** – anticipate that the baby will be born.

(HSIB maternity team)

## **Rumping**

Rumping of the breech describes when the breech (bottom of a baby) has descended low enough in a mother's birth canal to be seen in between uterine contractions. (HSIB maternity team)

## **Running start position**

The running start position is a technique that may be used during a shoulder dystocia to release a baby's shoulder from a mother's pelvis or during a breech birth to assist the birth of a baby. A mother is asked to assume a position like a runner about to start a race, with a leg lifted and the knee close to her chest. This may cause a mother's pelvis and her outlet to open slightly wider and in turn assist the birth. (HSIB maternity team)

# S

## Saddle pulmonary embolism

A saddle pulmonary embolism (PE) is a large blood clot which straddles the main pulmonary veins and extends into the pulmonary arteries. (HSIB maternity team)

## Safety huddle

A safety huddle is a short multidisciplinary meeting used to support communication within a team. The meeting may be held at a predictable time and place or occur on an ad hoc basis. The focus is usually on the mothers and babies within a unit who are most at risk. A safety huddle may identify and prioritise workload, agree actions and management for mothers and babies and provide feedback to the team. (HSIB maternity team)

## Safety-netting

Safety-netting is the term used to describe the information a clinician may give a mother about what she should do if she experiences a change in her condition or if she has further concerns. (HSIB maternity team)

## Saltatory pattern

A saltatory pattern describes a characteristic fetal heart rate pattern seen on a CTG, which can be associated with low oxygen levels in a baby. (HSIB maternity team)

## Sarcoidosis

Sarcoidosis is a rare condition where small patches of red and swollen tissue, called granulomas, may develop in the organs of a mother's body. It usually affects the lungs and skin and may cause shortness of breath and a persistent cough. (HSIB maternity team)

## Sarnat staging

Sarnat staging may be used to classify the degree of brain injury in a baby caused by an inadequate supply of oxygen/blood flow to the brain occurring during the perinatal period. The Sarnat score may provide clinicians with information about the management and prognosis for a baby. (HSIB maternity team)

## SBAR

SBAR is an easy to use, structured form of communication that enables information to be transferred accurately between individuals.

- **S** = Situation (a concise statement of the problem)
- **B** = Background (pertinent and brief information related to the situation)
- **A** = Assessment (analysis and considerations of options — what you found/think)
- **R** = Recommendation (action requested/recommended — what you want)

Further information from: **NHS - SBAR**



## Scheuermann's disease

Scheuermann's disease (sometimes called Scheuermann's kyphosis) is a type of spine curvature (kyphosis) caused when vertebrae do not develop in the expected way. The vertebrae are a triangular, wedged shape, rather than the usual rectangular box-like shape. The condition may cause the vertebrae to be out of position on a mother's/baby's back.

Further information from: **NHS - Kyphosis**

## Sciatica

Sciatica is a term that describes symptoms of pain, numbness, and/or weakness that radiate along the sciatic nerve from a mother's lower back to her buttocks and leg. (HSIB maternity team)

## Scoliosis

(a sideways curvature of a mother's spine)

## Second stage of labour

The second stage of labour can be divided into two parts.

1. The first part is referred to as the passive second stage, when the cervix is fully opened up, a mother may not have an urge to push.
2. The second part is referred to as the active second stage, when the cervix is fully open and one of the following is present:
  - a baby can be seen or
  - a mother has an urge to push or
  - when a mother is encouraged to push, whether she has the urge to push or not, after a period of time has elapsed.

Further information from: **NICE - care in labour**

## Selective reduction in multiple pregnancy

In some cases of multiple pregnancy, there may be too many embryos for a safe ongoing pregnancy, a known abnormality in one or more of the babies, or complications arising from a monochorionic/monoamniotic pregnancy. In such situations mothers may be offered selective reduction of the number of fetuses. The most common method is an injection of potassium to stop the fetal heart from beating. This procedure is most commonly performed in the first trimester of pregnancy. (HSIB maternity team)

## Selective serotonin re-uptake inhibitor

(a medicine used to treat depression or anxiety)

## Self-isolation during the COVID-19 pandemic

The practice of remaining separate from others to prevent the potential spread of COVID-19. A mother may be asked to self-isolate if:

- she, or anyone she lives with, has symptoms of COVID-19
- she, or anyone she lives with is awaiting a test result
- she, or anyone she lives with has received a positive COVID-19 test result
- if she is due to have planned surgery. (HSIB maternity team)

## Sepsis

Sepsis is the body's overwhelming and life-threatening response to infection that can lead to tissue damage, organ failure and death. (HSIB maternity team)

### Or where sepsis contributed to or caused the maternal death.

## Sepsis

Sepsis is the body's overwhelming and life-threatening response to infection that can lead to tissue damage, organ failure and death. It accounts for 10% of maternal deaths in the developed world. Only a small number of mothers who develop sepsis in pregnancy will die. (HSIB maternity team)

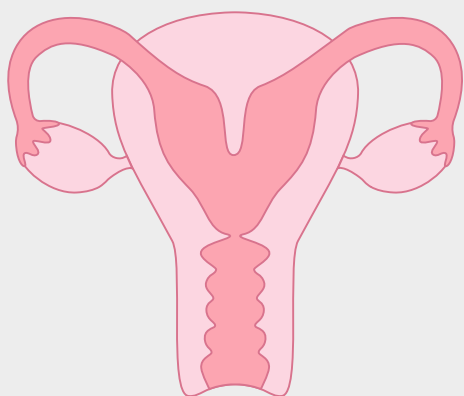
## Sepsis Six

The 'Sepsis Six' is the name given to a bundle of care created to reduce the chance of a mother dying from sepsis. The 'Sepsis Six' was developed by a UK charity called 'The UK Sepsis Trust' from international guidelines that emerged out of the 'Surviving Sepsis Campaign'.

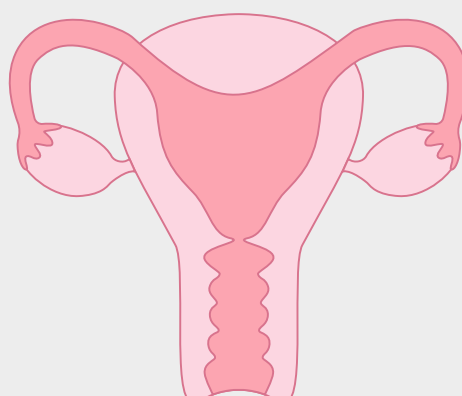
Further information from: **Surviving sepsis campaign guidelines** or **NICE - Sepsis**

## Septate/subseptate uterus

Septate uterus



Normal uterus



A septate uterus has a wall of muscle coming down the centre splitting the space in two. Sometimes the wall only comes part-way down the uterus (subseptate) and other times it comes the whole way down. Mothers with subseptate or



septate wombs are more likely to have difficulties with conception. There is also an increased risk of first-trimester miscarriage and preterm birth. In later pregnancy the baby may lie in an awkward position.

Further information from: **Tommy's information about uterine abnormality**

### **Septic arthritis**

Septic arthritis is an infection of the fluid in a mother's joint(s) which may be serious if not treated as soon as possible.

Further information from: **NHS - septic arthritis**

### **Septic screen**

A septic screen is a standard screening process to detect the presence of an infection involving blood cultures, swabs and a urine sample. (HSIB maternity team)

### **Septic shock**

Septic shock is a life-threatening condition and occurs when a mother's blood pressure is very low and her heart is unable to pump blood around the body to her vital organs. (HSIB maternity team)

### **Serum bilirubin test**

A serum bilirubin test is a blood test which measures the levels of bilirubin in a mother's/baby's blood. (HSIB maternity team)

### **Sevoflurane**

Sevoflurane is an inhalational anaesthetic used for the induction and maintenance of general anaesthesia. (HSIB maternity team)

### **Sexual health screen**

A sexual health screen is a series of investigations to establish whether a mother has contracted a sexually transmitted infection. (HSIB maternity team)

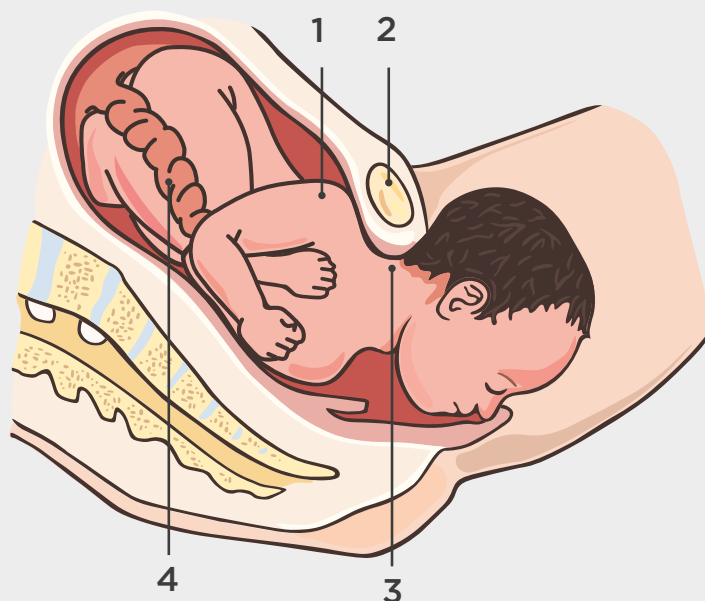
### **Shielding during the COVID-19 pandemic**

Shielding describes the practice of protecting clinically extremely vulnerable mothers to reduce the chance of them becoming infected by COVID-19. (HSIB maternity team)

### **Shock**

Shock is a life-threatening condition that occurs when blood flow, through a mother's body, is reduced and the organs do not receive enough oxygen to function as expected. Shock requires urgent medical treatment and may worsen rapidly. (HSIB maternity team)

## Shoulder dystocia



1. Shoulder stuck behind a mother's pelvic bone
2. Pubic bone
3. Nerve, or area of nerve stretching
4. Umbilical cord

Shoulder dystocia is when a baby's head has been born and one of the shoulders becomes stuck behind a mother's pubic bone, delaying the birth of a baby's body (see figure). If this happens extra help is usually needed to release a baby's shoulder.

Further information from: **RCOG - shoulder dystocia**

### 'Shouldering'

'Shouldering' describes a brief increase in a baby's heart rate immediately before and after a deceleration (temporary slowing of a baby's heart rate). (HSIB maternity team)

### Show

This is when the plug of mucus at the neck of the womb (cervix) comes away. This may indicate the start of labour. It may contain some blood. (HSIB maternity team)

### Shingles

(an infection caused by the chicken pox virus which may cause a painful rash)

### Short term variability

Short term variability is a measure of the beat to beat variation of a baby's heart beat. Short term variability cannot be interpreted visually and requires the use of computerised analysis of a CTG. A value of less than 3ms is strongly linked to poor fetal wellbeing. Reduced short term variability can only be fully analysed after 60 minutes of a computerised CTG. (HSIB maternity team)

## Sick sinus syndrome

Sick sinus syndrome is a condition where a mother's heart's own pacemaker does not work as it should. Sick sinus syndrome causes a mother's heart to beat much slower or much faster than expected. Symptoms of sick sinus syndrome may include tiredness, fainting, dizziness, shortness of breath and palpitations.

Further information from: **NHS - pacemaker implantation**

## Sickle cell disease

Sickle cell disease is the name for a group of inherited health conditions that affect the red blood cells. The most serious type is called sickle cell anaemia. People with sickle cell disease produce unusually shaped red blood cells that can cause problems because they do not live as long as healthy blood cells and can block blood vessels. Sickle cell disease is a serious and lifelong health condition, although treatment can help manage many of the symptoms.

Further information from: **NHS - sickle cell disease**

## Sickle cell trait

A carrier of sickle cell is someone who carries the gene that causes sickle cell disease, they do not have sickle cell disease themselves. It is also known as having the sickle cell trait. People with the sickle cell trait will not develop sickle cell disease, they are at risk of having a child with it if their partner is also a carrier.

Further information from: **NHS - sickle cell disease**

## Sigmoid venous sinus thrombosis

The sigmoid sinus is a pair of blood vessels that help to drain blood away from a mother's brain. They connect a number of large blood vessels in a mother's brain. A sigmoid sinus thrombosis (blood clot) is a term used to describe when a blood clot forms in a blood vessel in the sigmoid sinus area of mother's brain. (HSIB maternity team)

## Silent hypoxia

Silent hypoxia is a condition where a mother may have alarmingly lower oxygen levels than expected in her blood without experiencing difficulties with breathing. (HSIB maternity team)

## Simultaneous early medical abortion

An early medical abortion (EMA) can take place up to 10 weeks of pregnancy. There are two stages to an EMA. The first involves taking a tablet by mouth. The second involves the woman being given a second abortion medication 24 to 48 hours after the first stage, either vaginally or buccally (medication held in the cheek to dissolve).

A simultaneous early medical abortion (SIM EMA) can take place up to nine weeks of pregnancy. The two stages take place at the same appointment at the same time. During a SIM EMA, the abortion medication in the second stage is given vaginally.

Failure rate of simultaneous and six hourly (EMA) is thought to be around 4 in 100 (compared to around 2 in 100 for staged EMA).

Further information from: **National unplanned pregnancy advisory service.**

### **Sinus tachycardia**

Sinus tachycardia is a condition where a mother's/baby's heart beat is regular, but faster than the expected range. (HSIB maternity team)

### **Sinusoidal pattern**

The sinusoidal pattern is an abnormal fetal heart rate pattern seen on a CTG most commonly associated with fetal anaemia (low haemoglobin) or blood loss. It may be associated with other complications including infection or fetal hypoxia (reduced oxygen level). (HSIB maternity team)

### **Sjogren's syndrome**

Sjogren's syndrome is a long-term autoimmune condition that affects the parts of a mother's body that produce fluids (tears and saliva). Nerves and joints can also be affected. The condition may have an impact on daily life and treatment focuses on relief of symptoms.

Further information from: **NHS - Sjogren's syndrome**

### **Skin maceration**

Maceration is the softening and peeling of skin when it is in contact with moisture for a period of time. Skin maceration may occur in the hours after the death of a baby whilst they are still inside their mother's womb. (HSIB maternity team)

### **Skin-to-skin contact**

Skin-to-skin contact describes placing a baby directly on their mother's, or sometimes their father's, bare chest after birth. (HSIB maternity team)

### **Small for gestational age, intrauterine growth restriction and fetal growth restriction**

The curved lines on a baby's growth chart represent the range of growth that is expected. Most babies will continue to grow along the same curve.

Small-for-gestational age (SGA) refers to a baby born with a birth weight (BW), which is smaller than most babies born at the same number of weeks of the pregnancy. A baby's estimated weight as calculated by ultrasound scans, can be plotted on these charts, to identify SGA babies. The birth weight also can be plotted on the chart.

Intrauterine growth restriction (IUGR) (also known as fetal growth restriction, FGR) is a condition where a baby's growth slows or stops during the pregnancy. IUGR babies are more likely to find the stress of labour difficult.

Further information from: **RCOG - having a small baby**

## Southampton sling

A Southampton sling is a device that may be used by ambulance staff to assist with removing a mother/patient from a challenging environment. The sling is around 6 feet in length and made from polyester with hardwood poles at either side down its length, enabling a mother/patient to be carried lying flat. (HSIB maternity team)

## Spalding sign

The Spalding sign may be seen on an ultrasound scan a few days after a baby has died in a mother's womb. (HSIB maternity team)

## Spastic quadriplegic cerebral palsy

Cerebral palsy is the name for a group of lifelong conditions that affect movement and co-ordination. It is usually caused by an injury to the brain before, during or after birth and prevents the normal development of motor function. Spastic cerebral palsy is characterised by jerky movements, muscle tightness and joint stiffness.

Further information from: **SCOPE - cerebral palsy**

## Speculum

(instrument to visualise a mother's cervix)

## Spherocytosis

Spherocytosis is an inherited condition present from birth, that affects a mother's/baby's red blood cells. Red blood cells carry oxygen around the body. All cells in the body have an outer layer called a membrane. With spherocytosis the red blood cell membrane is more fragile and cells become spherical rather than the usual doughnut shape.

These changes mean that red blood cells only last around 30-60 days in a mother's/baby's body rather than the normal 120 days. Spherocytosis may cause a mother/baby to have anaemia (low iron levels in the blood), jaundice (yellowing of the skin and eyes caused by high bilirubin levels in the blood), gallstones (small stones that form in the gallbladder) and/or splenomegaly (a large spleen). (HSIB maternity team)

## Spinal anaesthesia

Spinal anaesthesia is a type of regional anaesthetic used to give total numbness to the lower parts of a mother's body, for example during a caesarean birth, instrumental birth or stitches after birth. It is given by injection into the lower back and lasts around three hours.

Further information from: **NHS - spinal anaesthesia**

## Spinal haematoma

A spinal haematoma is an accumulation of blood in the epidural space that may compress a mother's/baby's spinal cord and nerve roots. (HSIB maternity team)

## **Spinal muscular atrophy**

Spinal muscular atrophy is a genetic disorder characterised by weakness and wasting of a mother's/baby's muscles. There are different types of the disorder. It is caused by a loss of nerve cells that control muscle movement and usually worsens with age. (HSIB maternity team)

## **Spirometry**

This is a simple test used to help diagnose and monitor certain lung conditions by measuring how much air a mother can breathe out in one forced breath. The test is carried out using a device called a spirometer, this is a small machine attached by a cable to a mouthpiece. Further information from: **NHS - spirometry**

## **Splenic artery aneurysm**

Splenic artery aneurysm is extremely rare. It is the most common visceral (internal organs) artery aneurysm and is more common in the female population. There is a strong association with pregnancy and multiparity and is associated with high maternal and fetal mortality. There are usually no symptoms until it ruptures and can result in the death of a mother. The majority of ruptures occur spontaneously and are largely unpredictable and unavoidable. (HSIB maternity team)

## **Spontaneous bacterial peritonitis**

Spontaneous bacterial peritonitis is an infection of fluid in a mother's abdomen (known as ascitic fluid or ascites) when there is no pre-existing cause identified. (HSIB maternity team)

## **Spontaneous coronary artery dissection**

Spontaneous coronary artery dissection (SCAD) is a condition when a tear appears in the wall of an artery (blood vessel) which supplies blood to the muscle of a mother's heart. SCAD is a rare heart condition that may occur suddenly with no apparent warning. At least 80% of those with SCAD are women and it may occur during, or soon after, pregnancy. (HSIB maternity team)

## **Spontaneous rupture of membranes**

(the waters broke)

## **Sprengel's shoulder/deformity**

(where one shoulder blade is higher than the other).

## **Stabilising induction**

A stabilising induction, sometimes called a controlled artificial rupture of membranes (ARM), is a technique used to break a mother's waters when the presenting part of her baby is not fixed in the pelvis. The technique involves one clinician placing their hands on a baby's presenting part (head or bottom) in a mother's abdomen. At the same time the mother is examined vaginally (by a second clinician) and her waters are broken. (HSIB maternity team)

## ST - analysis

ST-Analysis combines standard cardiotocography (CTG) monitoring with assessment of the electrical pattern of the unborn baby's heart (ECG) using a STAN® fetal monitor. The fetal monitor can be used in the same way as any CTG monitor. Once a fetal scalp electrode (FSE) is attached to a baby's head, the software analyses a section of a baby's ECG called the ST wave in relation to the whole ECG waveform and works out a ratio (T/QRS). The ST-Analysis software can be disabled in order to use the monitor as a regular CTG monitor when an FSE is attached. (HSIB maternity team)

### Or where ST analysis was on the causal path

## ST - analysis

ST-Analysis combines standard cardiotocography (CTG) monitoring with assessment of the electrical pattern of the unborn baby's heart (ECG) using a STAN® fetal monitor. The fetal monitor can be used in the same way as any CTG monitor. Once a fetal scalp electrode (FSE) is attached to a baby's head, the software analyses a section of a baby's ECG called the ST wave in relation to the whole ECG waveform and works out a ratio (T/QRS). Subtle changes in the waveform ratio may be indicative of reduced oxygen to a baby's heart and are called ST events (episodic, baseline and biphasic).

- **Episodic T/QRS rise** – These correspond to short lasting periods with reduced oxygen.
- **Baseline T/QRS rise** – These correspond to periods where reduced oxygen is prolonged.
- **Biphasic ST** – Significant biphasic ST events indicate a situation in which a baby's heart has not had time to respond to reduced oxygen or does not have the capacity to react. They may also be seen in the case of infections. The numbers correspond to the degree of abnormality and only Grades 2 and 3 are considered abnormal.
- There is a fixed algorithm that should be applied when there are ST events to determine whether action should be taken.

The ST-Analysis software can be disabled in order to use the monitor as a regular CTG monitor when an FSE is attached. (HSIB maternity team)

## Staphylococcus aureus

Staphylococcus aureus, sometimes called staph, is a type of bacteria, commonly found on a mother's/baby's skin. Staph may cause skin and soft tissue infections if the bacteria are able to enter through an area of broken skin. Usually, staph infections are mild.

Some infections may become more serious and develop into pneumonia (lung infection) or spread to the bloodstream, bone or joints. (HSIB maternity team)

## Staphylococcus warneri

(a bacterium commonly found on the skin and which usually causes no harm)



## Starvation ketoacidosis

Starvation ketoacidosis describes when ketones (a by-product of the breakdown of fat stores) are present in a mother's blood in addition to a high level of acid (metabolic acidosis), and a normal blood sugar level. It may occur to a mild degree in non-pregnant women after not eating or vomiting for 14 days or more. It can occur more severely and rapidly in mothers. (HSIB maternity team)

## Statin

(medication to lower cholesterol)

## Status epilepticus

Epilepsy is a condition affecting a mother's brain. It is caused by bursts of electrical brain activity (seizures). It may cause a range of symptoms, some of which may temporarily affect a mother's ability to control her body's movements. Epilepsy can start at any age and may be treated with medicine to control seizures. Status epilepticus is the name given to a seizure that is long lasting, or a series of seizures where a mother does not regain consciousness in between. Status epilepticus is a medical emergency.

Further information from: **NHS - Epilepsy**

## Stent

A stent is a short, wire mesh tube that can be inserted into a blood vessel or tubular structure in the body. The stent acts like a scaffold and helps to keep the vessel or tubular structure open and unblocked.

Further information from: **NHS - Stent insertion**

## Sterile pyuria

Sterile pyuria is the presence of white blood cells in a mother's/baby's urine in the absence of infection. During pregnancy a mother's urine may be mixed with vaginal discharge, which contains white blood cells and this may cause sterile pyuria. (HSIB maternity team)

## Sterile water injections for pain relief (injected water papules)

Sterile water injections may be offered to relieve a mother's lower back pain in labour. Up to 0.5 ml of water may be injected just under a mother's skin in four areas of her lower back. There is limited evidence of the effectiveness of this, it is not considered harmful. Current national guidance does not recommend its use.

Further information from: **NICE - Information for the public - pain relief**

## Steroids (COVID-19)

Steroids are medicines that may be used in a wide range of illnesses to reduce swelling. Steroids may reduce the symptoms of severe pneumonia, in mothers with advanced COVID-19 infection, by reducing swelling and scarring within the lungs. (HSIB maternity team)





## Stickler syndrome

Stickler syndrome is a genetic condition that affects the connective tissue of a mother/baby. Symptoms may include facial abnormalities, visual problems, hearing loss, and joint and skeletal problems. Stickler syndrome affects around 1 in 7,500 to 9,000 new born babies. There is no cure for Stickler syndrome and management may need a multidisciplinary approach.

Further information from: **Stickler syndrome UK**

## Stoma

A stoma is an artificial opening in a mother's abdomen (tummy), made during an operation, to divert waste (faeces or urine) out of their body. A pouch is connected to the stoma and worn on the outside of the mother's body to collect the waste. Depending on the circumstances, the stoma may be temporary or permanent. (HSIB maternity team)

## Stoma and mucous fistula

A stoma and mucous fistula (sometimes called an ileostomy) is an operation to temporarily divert a baby's bowel in cases of necrotising enterocolitis or infection. The bowel is surgically divided, and each end (stoma) is brought out to the baby's abdomen. The end closest to the baby's mouth produces a stool (poo), the other end allows the discharge of mucous.

Further information from: **GOSH - ileostomy**

## Streptococcus gallolyticus ssp pasteurianus

Streptococcus gallolyticus ssp pasteurianus is a bacterium. When present in a baby, the bacterium may cause a serious infection such as meningitis (an infection of the protective membranes that surround a baby's brain and spinal cord) or septicaemia (bloodstream infection). Infection with streptococcus gallolyticus ssp pasteurianus is rare. (HSIB maternity team)

## Stroke

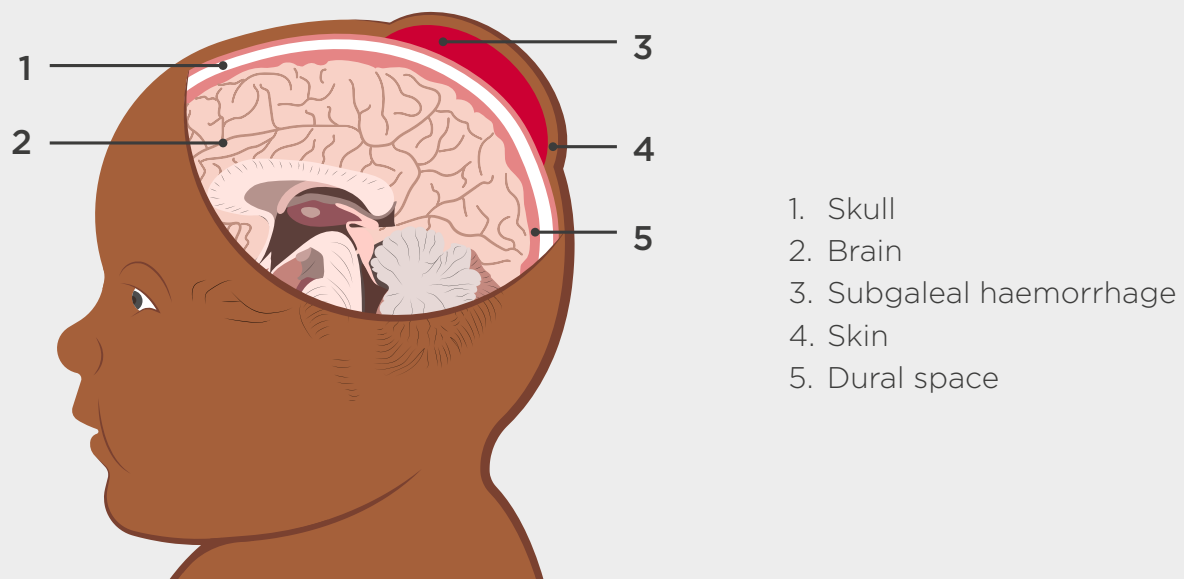
A stroke is a serious life-threatening condition that happens when the blood supply to part of the brain is cut off.

Further information available at **NHS - Stroke**

## Subacute hypoxia

(short term reduced oxygen level in a baby)

## Subarachnoid haemorrhage



A subarachnoid haemorrhage is an uncommon type of stroke caused by bleeding on the surface of a mother's brain. It is a very serious condition and may be fatal. Further information from: **NHS - subarachnoid haemorrhage**

### Subchorionic haemorrhage or haematoma

A subchorionic haemorrhage or haematoma is a condition where bleeding occurs between the lining of a mother's uterus (endometrium) and the outer membrane (chorion) of the pregnancy sac. The bleeding usually resolves itself without treatment. Rarely, the bleeding may cause the placenta to separate from the uterus causing a miscarriage. (HSIB maternity team)

### Subchorionitis

Subchorionitis is inflammation between the chorion (the outer placental membrane) and the endometrium (the wall of the mother's uterus). If present, the inflammation is usually identified during examination of a placenta after the birth of a baby. (HSIB maternity team)

### Subcostal and intercostal recession

Subcostal and intercostal recession may be a sign that a baby is having difficulty breathing. It may be seen when a baby's abdomen (stomach area) is seen to pull in under their chest during breathing. (HSIB maternity team)

### Subcutaneous

(under the skin)

## **Subcutaneous fat necrosis of the newborn**

Subcutaneous fat necrosis of the newborn (SCFN) is an uncommon condition characterised by nodules (lumps) or large hardened areas over the back, buttocks and limbs of babies which appear in the first weeks of life. It is more common in babies that have undergone therapeutic cooling. SCFN may be complicated by high levels of calcium in a baby's blood. Babies with SCFN may need to have their blood calcium checked. SCFN usually spontaneously resolves without treatment. (HSIB maternity team)

## **Subdural haemorrhage**

A subdural haemorrhage is a condition where blood collects between the skull and the surface of a mother's/baby's brain. (HSIB maternity team)

## **Subdural space**

The subdural space is between two layers of tissues protecting a mother's spinal cord (the spinal arachnoid matter and the spinal dura matter). Rarely some of the epidural medicine can end up between these layers. As these layers are very close to each other it may lead to the medicine spreading in an uneven manner. This may lead to a high or partial epidural block. (HSIB maternity team)

## **Subendocardial fibrosis**

Subendocardial fibrosis describes a condition where there is evidence (from cardiac magnetic resonance imaging (MRI) or a post mortem) of scarring in the subendocardial area of the heart. This represents a prior injury to the heart. The injury might have been caused by a blocked blood vessel in the heart, significant high blood pressure, a viral infection of the heart muscle or a genetic cardiomyopathy. (HSIB maternity team)

## **Subendocardium**

(the area between the endocardium (inner layer) and the myocardium (middle layer) of a mother's/baby's heart).

## **Subgaleal haemorrhage**

A subgaleal haemorrhage is an accumulation of blood between the membrane covering the skull bones (periosteum) and the galea layer of a baby's scalp. It can occur after any type of birth; it is particularly associated with vacuum assisted births. Subgaleal haemorrhage is a rare and potentially fatal (remove if did not die) complication of labour and birth and can lead to up to 40% of a baby's blood volume being accumulated in this space. (HSIB maternity team)

## **Subtotal hysterectomy**

A subtotal hysterectomy is a surgical procedure to remove a mother's uterus, leaving her cervix in place. It may be used as a lifesaving procedure when managing a post-partum haemorrhage.

Further information from: **NHS - hysterectomy**



## Succenturiate lobe

A succenturiate lobe is a smaller placental lobe that is separate to the main disc of a placenta. There may be more than one succenturiate lobe. They may be joined to the main disc of the placenta by a blood vessel. (HSIB maternity team)

## Sudden arrhythmia death syndrome

Sudden arrhythmic death syndrome (SADS) is when someone dies suddenly and unexpectedly from a cardiac arrest and the cause of the cardiac arrest cannot be found. A cardiac arrest is when the heart suddenly stops pumping blood around the body. This stops breathing and starves the brain of oxygen. SADS affects around 500 people in the UK every year. (HSIB maternity team)

## Sudden unexpected postnatal collapse

Sudden unexpected postnatal collapse (SUPC) describes a baby, born at greater than or equal to 35 weeks of pregnancy, who appears well at birth. The baby may later

- unexpectedly collapse requiring resuscitation in the first seven days of life and,
- need intensive care or go on to die.

Further information from: **British Association of Perinatal Medicine - Sudden and unexpected postnatal collapse**

## Sudden unexplained death in epilepsy

Sudden unexplained death in epilepsy (SUDEP) is a term used to describe when someone is believed to have died during or after a seizure where no other cause of death can be found.

The reasons for SUDEP are not clearly understood. As SUDEP is thought to happen either during or following a seizure, it is possible that it is due to a problem with the person's heart or breathing during or following the seizure.

Further information from: **Epilepsy Society UK**

## Superficial thrombophlebitis

Superficial thrombophlebitis describes inflammation (swelling) of a blood vessel near the surface of a mother's/baby's skin. Superficial thrombophlebitis may be caused by a blood clot and resolves without treatment within a week or two.

Further information from: **NHS - Superficial thrombophlebitis**

## Supraglottic airway device

A supraglottic airway device (SAD) (sometimes called a supraglottic airway (SGA)) is used to establish and maintain a clear upper airway for a patient. (HSIB maternity team)

## Suprapubic pressure

Pressure on a mother's abdomen just above the pubic bone to try and release a baby's shoulder. (HSIB maternity team)

### **Suprapubic pressure during breech birth**

Suprapubic pressure describes pressure on a mother's abdomen, during a breech birth, just above the pubic bone to try and flex a baby's head. (HSIB maternity team)

### **Supraventricular tachycardia (mother)**

Supraventricular tachycardia (SVT) is a condition when a mother's heart beats faster than expected. SVT is not usually serious and usually resolves by itself though sometimes it may need to be treated with medicine. (HSIB maternity team)

### **Supraventricular tachycardia (baby)**

Supraventricular tachycardia (SVT) is a condition when a baby's heart beats faster than expected. SVT usually resolves by itself though sometimes it may be more serious and need to be treated with medicine. (HSIB maternity team)

### **Surfactant**

Surfactant is a mixture of chemicals that stop the lungs from collapsing when a baby breathes out. The lungs start making this at about 24 weeks gestation and it is not well developed before 36 weeks. Additional surfactant can be given as a liquid into the lungs of a baby soon after birth, when breathing problems have been identified.

Further information from: **Bliss - neonatal unit explanations**

### **Surgical emphysema**

Surgical emphysema (sometimes called subcutaneous emphysema) is a condition where air/gas is located in the tissues under a mother's skin. (HSIB maternity team)

### **Surgical thrombectomy**

Surgical thrombectomy is a type of surgery to remove a blood clot from inside a mother's blood vessel. (HSIB maternity team).

### **Suspicious CTG**

If a CTG is categorised as suspicious this means the CTG is not entirely normal/reassuring and needs to be closely observed for any other changes. A senior midwife or doctor should be asked to review the CTG and make a plan if there are concerns about a baby's wellbeing. It may return to normal without any other actions (HSIB maternity team)

### **Symphysiotomy**

A symphysiotomy is an emergency operation to widen a mother's pelvis to allow a baby to be born. The procedure involves surgically opening a mother's pelvis at the front (the symphysis pubis). (HSIB maternity team)

## **Symphysis-fundal height**

Symphysis-fundal height (SFH) is a measurement of the size of a mother's uterus which is used to assess a baby's growth during pregnancy. It is measured from the top of a mother's uterus to her pubic bone. (HSIB maternity team)

## **Synchronized intermittent mandatory ventilation**

Synchronized intermittent mandatory ventilation (SIMV) describes a type of breathing support using a ventilator (breathing machine). The ventilator provides breaths which are in time with a mother's/baby's spontaneous breathing efforts at a pre-set rate. (HSIB maternity team)

## **Syncytial knots**

Syncytial knots may be seen during the examination of a placenta under a microscope. An increased number of syncytial knots may be associated with pre-eclampsia and fetal growth restriction (where a baby's growth slows or stops during the pregnancy). Syncytial knots are also a characteristic of maternal vascular malperfusion (poor placental function) and may be a response to a hypoxic (low oxygen) injury to a placenta. (HSIB maternity team)

## **Synechia band**

In a uterus, bands of tissue or adhesions (synechiae) can form when a woman is not pregnant. During a pregnancy, the membrane of the pregnancy sac can become wrapped around these, causing amniotic sheets or folds; these do not usually cause any problems. Synechiae are different from amniotic bands that form during pregnancy within the amniotic sac, which can sometimes cause associated pregnancy problems. (HSIB maternity team)

## **Syphilis in pregnancy**

Syphilis is an infection which can be passed to a mother during sexual contact with an infected person. It can be treated with antibiotics. If a mother does not receive treatment for the infection it may cause miscarriage, stillbirth or may be passed on to their baby in the womb. This is called congenital syphilis. All women are offered screening for syphilis in pregnancy. (HSIB maternity team)

## **Systemic inflammatory response syndrome**

Systemic inflammatory response syndrome (SIRS) is a condition where there is inflammation (swelling) throughout a mother's/baby's body which may be caused by infection (sepsis), trauma or pancreatitis (inflamed pancreas). SIRS may cause many of a mother's/baby's organs to stop working. (HSIB maternity team)

## **Systemic lupus erythematosus**

Systemic lupus erythematosus (SLE), sometimes called lupus is a long-term condition which may cause inflammation to a mother's joints, skin and other organs. There is no cure; symptoms can improve if treatment starts early. For further information: **NHS - Systemic lupus erythematosus**



## Symptoms of COVID-19

Symptoms of COVID-19 may include;

- a new continuous cough
- a high temperature
- a loss of or change in a mother's normal sense of taste or smell

Further information from: **Gov.uk - COVID-19 symptoms**

# T

## **T-piece resuscitator**

A T-piece resuscitator is a device that may be used to support the ventilation of a baby's lungs during their resuscitation. (HSIB maternity team)

## **T-wave inversion**

T-wave inversion is a feature which may be seen on a mother's electrocardiogram (ECG). T-wave inversion can be a normal finding on the ECG or can indicate previous or ongoing medical problems (HSIB maternity team)

## **Talipes**

Talipes, sometimes called club foot, is a birth defect affecting one or both of a baby's feet. It causes a baby's foot to point down or inwards. Babies are not in pain from this condition, although treatment is needed to prevent pain or walking difficulties as they grow older.

Further information from: **NHS - talipes**

## **Talking therapy**

Talking therapy may help people to manage their problems by changing the way they think and behave. It is most commonly used to treat anxiety, depression and can also be useful for other mental and physical health problems.

Further information from: **NHS - talking therapies**

## **Targeted cancer medicines**

Targeted cancer medicines work by 'targeting' those differences that help a cancer cell to survive and grow. A type of targeted medicine is a monoclonal antibody and they target specific proteins on cancer cells. These medicines can be given in combination with chemotherapy to make the treatment more effective. Additional testing is required as not all types of cancer can be treated with this type of therapy.

Further information from: **Cancer Research UK - targeted cancer drugs**

## **'Telehealth'**

Telehealth is an electronic communication system that uses text messages to help a mother communicate with staff managing her care. (HSIB maternity team)

## **Telemetry Telemetry cardiotocography**

Telemetry cardiotocography (CTG) is a wireless form of CTG monitoring. It allows a mother to move around more freely during her labour. (HSIB maternity team)



## Telephone triage (General practice only)

Telephone triage describes a term where a mother may be telephoned by a staff member to obtain clinical information and progress their care. Sometimes, the call may result in a plan of care and become a mother's consultation. Alternatively a mother may need to be signposted to another clinician or service.

Further information from: **Royal College of General Practitioners**

## Tenecteplase

(a single dose medication given to dissolve blood clots)

## Tension pneumothorax

Tension pneumothorax describes a progressive build-up of air in the space between a mother's/baby's lung and the chest wall. This causes pressure on other organs, especially the other lung, the heart and major blood vessels. This is a medical emergency and if left untreated, this condition could be fatal. (HSIB maternity team)

## Terminal apnoea

Terminal apnoea describes the advanced stage in the automatic response of a baby to acute, prolonged, hypoxia (reduced oxygen level). Terminal apnoea is characterised by slow deep breaths. (HSIB maternity team)

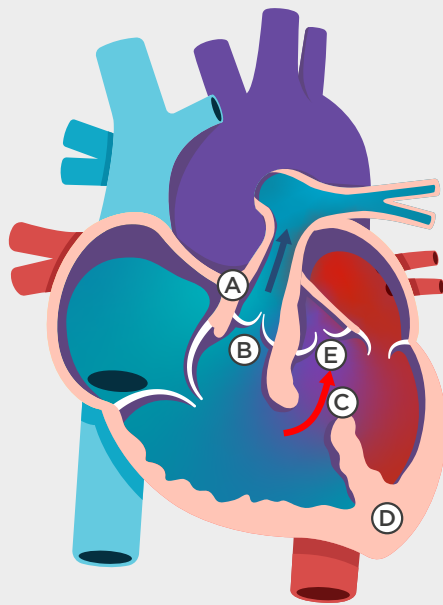
## Testing for COVID-19 infection

Two tests commonly available for detecting the COVID-19 infection are lateral flow tests (LFT) and polymerase chain reaction (PCR) tests. A LFT lateral flow test is usually performed on people who do not have symptoms of COVID-19. They give a quick result, within 30 minutes, and work in a similar way to a pregnancy test. A PCR test is mainly used on people with symptoms of COVID-19. The test takes longer to complete and is completed in a laboratory.

A third type of rapid swab test may be available in some trusts with access to the specialised equipment. These rapid swab tests are advantageous to hospital admissions as they may provide an accurate positive or negative diagnosis for the infection in under two hours.

Further information from: **NHS - COVID-19 testing** and **GOV.UK Testing for COVID-19**

## Tetralogy of Fallot (Fallot's tetralogy)



- A Narrowed pulmonary valve
- B Narrowing beneath pulmonary valve
- C VSD
- D Thickened muscle
- E Overriding aorta

Tetralogy of Fallot (ToF) can occur when a baby's heart does not form correctly during pregnancy. It is a combination of factors that affects normal blood flow through a baby's heart. ToF has the following four features:

1. The pulmonary heart valve is narrow (pulmonary stenosis) and the muscle below it is thickened.
2. There is a large hole called a ventricular septal defect (VSD) between the two main pumping chambers of the heart.
3. The aorta sits over the left and right ventricles instead of just the left ventricle (overriding aorta)
4. The right ventricle is enlarged and more muscular (right ventricular hypertrophy)

A baby with ToF may need surgery or other procedures soon after birth.

Further information from: **British Heart Foundation - Tetralogy of Fallot**

### Thalassaemia

Thalassaemia is the name for a group of inherited conditions that affect a substance in the blood called haemoglobin. People with thalassaemia produce either no or too little haemoglobin, which is used by red blood cells to carry oxygen around the body.

Further information from: **NHS - thalassaemia**

### Thermoregulation following brain injury

Thermoregulation refers to how a mother/baby maintains their own body temperature. Thermoregulation is controlled by an area in the base of the brain called the hypothalamus. When a brain injury occurs involving the hypothalamus, it may affect a mother's/baby's ability to control their own body temperature (HSIB maternity team)

## The Wells' score

The Wells' score is a scoring system used to estimate the probability of a pulmonary embolism ((PE) a clot in the blood vessels in the lungs) or a deep vein thrombosis ((DVT) a clot in a blood vessel in the leg). The scoring system has seven clinical features, each of which has a points value that is determined by the risk of each individual feature. It is not validated for use in pregnancy.

Further information from: **NICE - VTE**

## Third or fourth degree tear

A third or fourth degree tear affects the muscle and or lining of a mother's bottom. It may be associated with more bleeding around the time of birth and long-term symptoms relating to bowel function.

Further information from: **RCOG - third and fourth degree tears**

## Third stage of labour

The third stage of labour is the time from the birth of a baby to the birth of the placenta and membranes.

Further information available from: **NICE - care in labour**

## Thoracentesis

A thoracentesis is a procedure to remove fluid or air from around a mother's/ baby's lungs. A needle is inserted through the chest wall into the pleural space. The pleural space is the thin gap between the pleura (tissue) surrounding the lung and of the inner chest wall. The fluid removed may be sent to a laboratory to check for infection. (HSIB maternity team)

## Thoracotomy

A thoracostomy is a surgical incision into a mother's/baby's chest wall between the ribs that enables access to the lungs or other organs. (HSIB maternity team)

## Thrombocytopaenia

Thrombocytopenia is when the level of platelets in the blood falls. Platelets are important in blood clotting.

Further information from: **NHS - platelets**

## Thromboembolic risk score

A thromboembolic risk score may be completed in early pregnancy, during hospital admissions and after birth to assess the chance of a mother developing a venous thromboembolism (blood clot in a blood vessel).

Further information from: **RCOG - Reducing the chance of blood clots**

## Thrombolysis

Thrombolytic therapy involves the administration of medicines to dissolve blood clots that have blocked a mother's blood vessels, and which could cause potentially serious or life-threatening problems. The main risk of this therapy is bleeding. (HSIB maternity team)



## **Thrombophilia screen**

A thrombophilia screen is a combination of blood tests looking for any disorders that inhibit the clotting of the mother's blood. (HSIB maternity team)

## **Thromboprophylaxis**

Measures to reduce the chance of a mother developing a blood clot (thrombosis) are called thromboprophylaxis. The measures may be encouraging mobilisation, mechanical (anti-embolism stockings) or pharmacological (low molecular weight heparin). Different mothers will require different thromboprophylaxis depending on their personalised chance of developing a thrombosis. (HSIB maternity team)

## **Thrombosis**

(a blood clot in a blood vessel)

## **Thyroid function test**

A thyroid function blood test may be obtained from a mother to identify if her thyroid gland is working as expected. (HSIB maternity team)

## **Tidal volume**

(the amount of air that moves in and out of a mother's/baby's lungs during a normal breath.)

## **Tissue viability**

Tissue viability relates to care of a mother's/baby's skin to prevent damage from pressure, the positioning of medical devices or restricted mobility. Tissue viability specialists, usually specialist nurses, may offer guidance on how to treat wounds and skin damage. (HSIB maternity team)

## **Tongue tie**

A tongue tie is when the skin connecting a baby's tongue to the bottom of their mouth is shorter than expected or when it reaches to the tip of the tongue. (HSIB maternity team)

## **Tonic clonic seizures (mother)**

A tonic-clonic seizure, is sometimes called a 'grand mal' seizure.

This may happen in two stages – an initial tonic stage, shortly followed by a second clonic stage:

### **Tonic stage**

A mother may lose consciousness, her body may become stiff, and she may fall to the floor

### **Clonic stage**

A mother's limbs may jerk about, she may lose control of her bladder or bowel, and she may bite her tongue or the inside of her cheek. A mother may also have difficulty breathing.



The seizure normally stops after a few minutes, but some last longer. Afterwards, a mother may have a headache or difficulty remembering what happened and she may feel tired or confused.

Further information from: **NHS - tonic clonic seizures**

### **Tonic clonic seizures (baby)**

A tonic-clonic seizure, is sometimes called a 'grand mal' seizure.

This happens in two stages – an initial tonic stage, shortly followed by a second clonic stage:

#### **Tonic stage**

A baby's heart rate may slow, they may stop breathing and as a result the oxygen level in their blood may reduce. They may lose consciousness and their body may become stiff.

#### **Clonic stage**

A baby's limbs may jerk about, they may lose control of their bladder or bowel. They may also have difficulty breathing.

A seizure usually stops after a few minutes; some last longer.

Further information from: **NHS - tonic clonic seizures**

### **TORCH screen**

If a mother develops certain infections during pregnancy this can affect the growth and development of a baby. A TORCH screen is a blood test for some of the most common infections. Testing may include toxoplasmosis, rubella, parvovirus, cytomegalovirus and herpes virus. (HSIB maternity team)

### **Total anomalous pulmonary venous connection**

Total anomalous pulmonary venous connection (TAPVC) is a rare congenital (present from birth) heart defect. It is also known as TAPVR (total anomalous pulmonary venous return) or TAPVD (total anomalous pulmonary venous drainage). TAPVC occurs when the 4 veins that take oxygenated blood from a baby's lungs to the left side of the heart aren't connected in the normal way. Instead, they connect to the right side of the baby's heart. This means that a baby's body tissue gets less oxygenated blood. A baby with TAPVC may display symptoms such as bluish skin colour, rapid breathing, fast heart rate, poor feeding, lethargy shortly after birth.

Further information from: **NHS - congenital heart disease and Tiny Tickers - TAPVC**

### **Total triage (General practice only)**

Total triage is a term used to describe a process used when a mother is unable to book a consultation with a staff member. Instead a mother is directed towards a consultation or another service they may need, using an automated system or by staff members within a general practice.

Further information from: **Royal College of General Practitioners**



## Toxicology screen

A toxicology screen is a test that can determine the type, and approximate amount, of drugs a mother has taken. Toxicology is most often done using a blood or urine sample. (HSIB maternity team)

## Toxic shock syndrome

Toxic shock syndrome (TSS) is a rare, life-threatening condition, caused by either staphylococcus or streptococcus bacteria getting into a mother's body and releasing harmful toxins. TSS gets worse very quickly and can be fatal if not treated promptly. If it is diagnosed and treated early, most mothers will make a full recovery.

Further information from: **NHS - Toxic shock syndrome**

## Tracheal tug

Tracheal tug may be a sign a baby is having difficulty breathing. It may be seen when the trachea (windpipe) is pulled down by the muscles in the chest during breathing. (HSIB maternity team)

## Tracheo-oesophageal fistula

A trachea-oesophageal fistula (TOF) is a rare birth defect where a baby's windpipe (the trachea) and their oesophagus (the tube connecting their mouth and stomach) are connected together. It may be suspected antenatally, and requires corrective surgery soon after birth.

Further information from: **NHS - TOF**

## Tracheostomy

A tracheostomy is an opening at the front of a mother's/baby's neck so that a tube can be inserted into the trachea (windpipe) to help with breathing.

A tracheostomy may be carried out for mothers/babies in intensive care to maintain their airway in place of a breathing tube inserted through the mouth, to allow the removal of excess airway secretions, and to enable them to be weaned from mechanical ventilation (breathing machine). (HSIB maternity team)

## Traction bronchiectasis

(dilatation of a mother's airways caused by fibrosis (hardening) of the surrounding lung)

## Tranexamic acid

Tranexamic acid is a medicine used to control bleeding. It works by helping the blood to form a clot. (HSIB maternity team)

## Transfusion-associated circulatory overload

Transfusion-associated circulatory overload (TACO) is a reaction a mother may have to a blood transfusion resulting in signs or symptoms of excess fluid in the circulatory system. This usually happens within 12 hours of a blood transfusion.



The symptoms of TACO can include a positive fluid balance, shortness of breath, low oxygen levels in a mother's blood, swelling, and heart failure, high blood pressure and an increased heart rate. (HSIB maternity team)

### **Transient abnormal myelopoiesis**

A small number of babies with Down's syndrome may be born with a blood condition called transient acute myelopoiesis (TAM). TAM is a temporary condition that usually gets better without treatment as a baby gets older. It is caused by a gene abnormality in a baby's blood cells. A baby with TAM may have no symptoms. During an examination a baby may have a larger than expected liver or spleen, a rash and/or blood test results may suggest that the liver is not working properly.

Further information from: **Down's Syndrome Association**

### **Transition**

Transition is a period of time, towards the end of the first stage of labour, when a mother's cervix is almost fully open. At this point in labour, a mother's uterine contractions often get stronger and she may begin to feel urges to push. This may be a sign that labour is moving into the second stage. (HSIB maternity team)

### **Transcutaneous bilirubinometer**

A transcutaneous bilirubinometer is a non-invasive device which measures the level of bilirubin in a baby's skin. (HSIB maternity team)

### **Transcutaneous electrical nerve stimulation**

Transcutaneous electrical nerve stimulation (TENS) is a form of pain relief that can be used in labour. A gentle electrical current is passed through four flat pads stuck to a mother's back. This creates a tingling feeling. The strength of the current is controlled by a mother. TENS is particularly helpful at the beginning of labour, particularly for backache. TENS machines have no known harmful effects on a baby.

Further information from: **Obstetric Anaesthetist Association - pain relief in labour**

### **Transient tachypnoea of the newborn**

In the womb, a baby's lungs are filled with amniotic fluid which is important for lung growth. After birth, a baby takes a few deep breaths and pushes the fluid out of the lungs into their circulation. If a baby does not take enough deep breaths, some fluid may remain in their lungs. Transient tachypnoea of the newborn (TTN) describes the episodes of rapid breathing (tachypnoea) caused by the excess fluid. TTN requires observation, and for some babies, oxygen therapy and breathing support. (HSIB maternity team)

### **Transposition of the great arteries**

Transposition of the great arteries (TGA) is a condition present from birth caused when a baby's heart does not develop in the usual way. The two main blood vessels leaving the heart (the pulmonary artery and the aorta) in a baby with



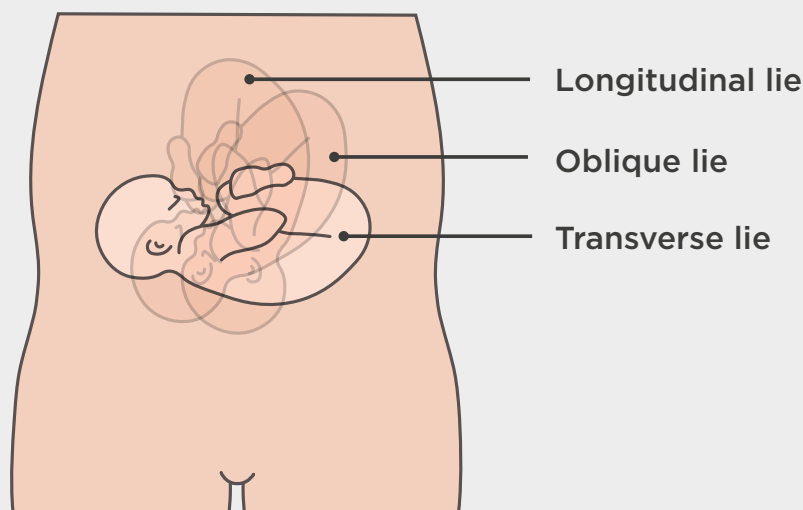
TGA, will be transposed (swapped over). The pulmonary artery usually takes blood from a baby's heart to the lungs to pick up oxygen. The aorta usually takes blood from a baby's heart to the rest of the body.

In a baby with TGA, the pulmonary artery is attached to the left ventricle (main pumping chamber) and the aorta is attached to the right ventricle (pumping chamber) of the heart.

When a baby is born with TGA this means that bloods flows from their lungs where it picks up oxygen and this then travels back to the lungs rather than travelling around the body. Blood that is flowing around the body cannot reach the lungs to pick up oxygen and continues to flow around the body.

Further information from: **The British Heart Foundation - Transposition of the great arteries**

## Transverse lie



A transverse lie is where a baby is lying in a horizontal position in the womb and the presenting part of a baby (head or bottom) is not in a mother's pelvis. (HSIB maternity team)

## Trauma risk management

Trauma risk management (TRiM) is a peer support system. It is designed to assist people who have experienced a traumatic event or who have had repeated exposure to potentially traumatic events. (HSIB maternity team)

## Traxi® dressing

A Traxi® retraction device (dressing) aims to improve access to the surgical field during abdominal surgery in mothers with a BMI  $\geq 40$  kg/m<sup>2</sup>. (HSIB maternity team)



## Treat reversible causes algorithm in maternal collapse

The four 'Hs'

- **Hypoxia** (low oxygen levels in the tissues) – a mother may develop hypoxia more quickly.
- **Hypovolaemia** (reduced circulating blood volume) – bleeding may be due to pregnancy or other causes. There may be other reasons for relative hypovolaemia in a mother including severe infection or complications of a spinal anaesthetic.
- **Hyperkalaemia, hypokalaemia** (high, low levels of potassium) - these are no more likely to occur in a mother. Hyponatraemia (low levels of sodium) – this may be caused by oxytocin (medication that causes the uterus to contract) use.
- **Hypothermia** (abnormally low body temperature) – no more likely in a mother.

The four 'Ts'

- **Thromboembolism** (blood clots in the circulatory system) – other types of blockages in the circulatory system require consideration in a mother such as a blockage from air or amniotic fluid, or a heart attack.
- **Tension pneumothorax** (progressive build-up of air in the space between the lungs and the chest wall) – this may be caused by trauma.
- **Tamponade** (compression of the heart by fluid in the sac around the heart) - this may be caused by trauma.
- **Toxins** – poisons / drugs / medication. May be caused by local anaesthetic, magnesium or other medication.

Additional pregnancy specific causes

- **Eclampsia and pre-eclampsia** (complication of severe high blood pressure in pregnancy) – may include intracranial haemorrhage (bleeding within the head).

Further information available at: **RCOG - Maternal collapse**

## Treat reversible causes algorithm in neonates

The four 'Hs'

- **Hypoxia** (low oxygen levels in the tissues)
- **Hypovolaemia** (reduced circulating blood volume)
- **Hyperkalaemia, hypokalaemia** (high, low levels of potassium)
- **Hypothermia** (abnormally low body temperature)

The four 'Ts'

- **Thromboembolism** (blood clots in the circulatory system)
- **Tension pneumothorax** (progressive build-up of air in the space between the lungs and the chest wall)
- **Tamponade** (compression of the heart by fluid in the sac around the heart) -
- **Toxins** – poisons/drugs/medication. May be caused by local anaesthetic, magnesium or other medication.

(HSIB maternity team)



## **Trial of assisted vaginal birth proceeding to caesarean birth if needed**

Many assisted vaginal (forceps and ventouse) births are conducted in the birth room. Sometimes, a mother may be transferred to the maternity operating theatre in case the assisted vaginal birth is unsuccessful, and a caesarean birth is needed. (HSIB maternity team)

## **Trial without catheter**

A trial without catheter describes when a urinary catheter is removed from a mother's bladder to see whether she is able to pass urine by herself. (HSIB maternity team)

## **Triage (General practice only)**

Triage describes a term where a mother may contact her general practice and her clinical symptoms are screened. She may then be directed towards a consultation with a staff member at the surgery or another service (possibly at a pharmacy or an emergency department).

Further information from: **Royal College of General Practitioners**

## **Trichorionic triamniotic triplets**

Trichorionic triamniotic triplets describe triplets who have their own chorions and amniotic sacs. They typically do not share a placenta and can be non-identical or identical. (HSIB maternity team)

## **Tricuspid valve regurgitation**

Heart valves control the flow of blood through a mother's/baby's heart. The valves have small flaps of tissue on them called leaflets. The leaflets (sometimes called cusps) open and close with each heart beat to allow blood to pass through the heart and to stop blood flowing backwards. The tricuspid valve is found on the right side of the heart, between the upper and lower chamber. Tricuspid valve regurgitation is a condition where the tricuspid valve does not close properly. (HSIB maternity team)

## **Trio exome sequencing**

Trio exome sequencing is a new type of blood test used to analyse large amounts of a mother's/baby's genetic code. The results of the test may show whether a mother/baby has a genetic disorder.

Genetic code is embedded within a mother's/baby's DNA, which can be obtained from a blood or tissue sample. The genetic code can be examined and checked for changes that could suggest a genetic disorder. This process is known as sequencing. In exome sequencing, the parts of a mother's/baby's genetic code known as exons are examined. (HSIB maternity team)

## Trisomy 15 mosaicism

Trisomy 15 (three copies of chromosome 15 in a cell rather than the usual 2 copies) mosaicism means a baby and their placenta have different chromosomes. There are different types:

- **Placental mosaicism** – Where trisomy 15 may be found within a placenta and the baby is unaffected.
- **True fetal mosaicism** -Where trisomy 15 is found within a baby and the placental chromosomes are unaffected.

(HSIB maternity team)

## Trophic feeds

(feeding very small volumes to stimulate the development of a baby's gastrointestinal tract)

## Troponin

Troponin is a protein that is found in heart muscle, this can be released when there has been damage to the heart. (HSIB maternity team)

## True knot in the umbilical cord

A true knot forms when the umbilical cord loops or interweaves around itself. They can form during pregnancy when a baby is moving around in the amniotic fluid. Cord knots occur in less than 2% of pregnancies. A true knot can increase the chance of a baby dying before birth if the blood flow through the umbilical cord is reduced. (HSIB maternity team)

## Tuberculosis

Tuberculosis (TB) is a bacterial infection that may affect any part of a mother's body, it often affects the lungs. TB is spread by breathing in infected droplets from an infected person when they cough or sneeze.

Usually, a mother's immune system will kill the bacteria and she will not have symptoms. Symptoms of TB include;

- A cough that lasts more than three weeks
- Reduced appetite and weight loss
- High temperature
- Night sweats
- Extreme tiredness or fatigue
- Swelling in the neck

Sometimes, a mother's immune system will be unable to kill all the bacteria. The bacteria may be stopped from spreading around a mother's body, preventing her from having symptoms. This is called latent TB.

Further information from: **NHS - tuberculosis**



## Turner syndrome

Turner syndrome is a condition that may be present from birth and affects only females. An individual with Turner syndrome has one sex chromosome rather than the usual two. Turner syndrome happens during conception.

A girl/woman with Turner syndrome is usually shorter than expected. Turner syndrome is often not diagnosed until around the age of 8 to 12 years, when they do not begin to show signs of sexual development. Further investigation usually shows underdeveloped ovaries. A girl/woman with Turner syndrome will not have monthly periods and will be unable to have biological children of their own. Further information from: **NHS - Turner syndrome**

## The turtle sign

The turtle sign describes when a baby's head births and then retracts (pulls back) against a mother's perineum, like a turtle going back into its shell. This causes a baby's cheeks to bulge and is a characteristic of shoulder dystocia. (HSIB maternity team)

## Two person jaw thrust

A two person jaw thrust is a technique to open a mother's/baby's airway. It involves one person lifting the mother's/baby's jaw to ensure the airway is open and a second person delivering the breath. (HSIB maternity team)

## Type 1 diabetes

Type 1 diabetes causes the level of glucose (sugar) in the blood to become too high. It happens when the body cannot produce enough of a hormone called insulin, which controls blood glucose. People with type 1 diabetes need daily injections of insulin to keep their blood glucose levels under control.

Diabetes can increase a person's chance of getting other health problems. Keeping stable blood sugar levels helps lower the chances of a person developing health problems. If diabetes is not controlled, and a person has a constant high blood glucose level, this can lead to:

- heart disease and stroke
- foot and circulation problems
- sight problems and blindness
- pain and loss of feeling (nerve damage)
- kidney problems
- gum disease

Further information from: **NHS - Type 1 diabetes**

## Type 1 diabetes and pregnancy

Type 1 diabetes causes the level of glucose (sugar) in the blood to become too high. It happens when the body can't produce enough of a hormone called insulin, which controls blood glucose. People with type 1 diabetes need daily injections of insulin to keep their blood glucose levels under control. Many mothers with type 1 diabetes will have a healthy pregnancy, although it may be more difficult to manage the diabetes and control the blood sugars. It is

recommended that mothers with type 1 diabetes should aim for an HbA1c (measure of longer-term blood sugar control) of below 48mmol/mol. Constant high blood glucose levels can harm a baby, especially in the first eight weeks of pregnancy. Consistently high blood sugars can increase the risk of having a large baby, which can make labour more difficult for both mother and baby.

Further information from: **NHS - type 1 diabetes in pregnancy**

### **Type 1 respiratory failure**

(low level of oxygen in a mother's/baby's blood)

### **Type 2 diabetes and pregnancy**

Type 2 diabetes is a condition which causes the level of sugar in a mother's blood to become too high. It may cause symptoms like excessive thirst, needing to pass urine more often and tiredness. It can also make someone more likely to have problems with their eyes, heart, and nerves. It is a lifelong condition that can affect everyday life. A mother with type 2 diabetes may need to change their diet, take medicines, and have regular check-ups. It is caused by an imbalance of a hormone in the body called insulin. It is often linked to being overweight or inactive, or having other family members with the condition.

Many mothers with type 2 diabetes will have a healthy pregnancy, although it may be more difficult to manage the diabetes and control the blood sugars. It is recommended that mothers with type 2 diabetes should aim for an HbA1c (measure of longer-term blood sugar control) of below 48mmol/mol. Constant high blood glucose levels can harm a baby, especially in the first eight weeks of pregnancy. Consistently high blood sugars can increase the risk of having a large baby, which can make labour more difficult for both mother and baby.

Further information from: **NHS - type 2 diabetes**

### **Two vessel umbilical cord/Single umbilical artery**

The umbilical cord usually contains two umbilical arteries and one umbilical vein. The absence of one artery affects less than 1% of pregnancies and is the most common umbilical abnormality. Screening for the number of vessels within an umbilical cord is not required as part of antenatal screening ultrasound scan standards (NHS Fetal Anomaly Screening Programme). Where a two-vessel cord is identified with no other concerns, it is an isolated finding and considered a normal variant. (HSIB maternity team)

# U

## Ulcerative colitis

Ulcerative colitis is a long-term bowel condition where a mother's colon (large intestine) and rectum become inflamed (swollen).

Symptoms of ulcerative colitis can include;

- Diarrhoea that may contain blood, mucous or pus
- Abdominal pain
- The need for a mother to open her bowels more often
- Tiredness
- Loss of appetite and weight loss

Further information from: **NHS - ulcerative colitis**

## Umbilical cord blood testing

The umbilical cord usually contains three blood vessels. One large vein carries oxygenated blood to the unborn baby. Two smaller arteries carry deoxygenated blood from the unborn baby.

The two most commonly reviewed indicators of a baby's wellbeing that are measured in the cord blood are the pH and the base excess (BE). These indicators are significant because they can be associated with an increased risk of brain injury due to lack of oxygen (hypoxic ischaemic encephalopathy, or HIE). A cord pH less than 7.0; or cord BE less than  $-16\text{mmol/L}$ , may be associated with HIE. Because of this it may be necessary to cool a baby. Some babies may be born in poor condition despite the cord gas results outside the description above. They may also need cooling. (HSIB maternity team)

\*BE is expressed as a negative number, numbers less than  $-16\text{mmol/L}$  (such as  $-20\text{mmol/L}$ ) are smaller numbers. A BE of  $-20\text{mmol/L}$  suggests a more significant disruption of a baby's acid/base balance than a BE of  $-16\text{mmol/L}$ .

## Umbilical hernia

An umbilical hernia occurs when a part of a mother's/baby's bowel pushes through a weakness in the muscle or surrounding tissue of the umbilicus. (HSIB maternity team)

## Umbilical arterial catheter

(a thin tube inserted into an artery in a baby's cord)

## Umbilical venous catheter

(a thin tube inserted into the vein in a baby's cord)

## Unassisted birth

Unassisted birth, sometimes called a free birth, is a term used to describe a mother who makes a decision to give birth to a baby without the assistance of a healthcare professional. (HSIB maternity team)

## **Undifferentiated mixed connective tissue disease**

Undifferentiated mixed connective tissue disease is a condition that affects the joints and muscles of a mother's body. Symptoms of undifferentiated connective tissue disease may include constriction of the blood vessels in the hands and feet, especially in response to cold (Raynaud's phenomenon), sensitivity to light, joint pain (arthralgia), muscle weakness, and dryness in the eyes and mouth. A diagnosis of undifferentiated connective tissue disease can be made through blood tests and imaging (CT scan) of a mother's chest. Treatment can include non-steroidal anti-inflammatory drugs (NSAIDs) and avoiding exposure to extreme temperatures. (HSIB maternity team)

## **Uniparental disomy**

Uniparental disomy is a condition where a baby receives two copies of a chromosome from one parent, rather than receiving one copy from one parent and one copy from the other. (HSIB maternity team)

## **Universal blood transfusion**

Sometimes a mother/baby may require a blood transfusion. There are four main blood groups (O, A, B and AB). Usually, the blood given to a mother/baby will be of the same blood group (compatible) to reduce their chance of developing a reaction to the blood (known as a transfusion reaction). Sometimes, in an emergency situation, there may not be time to wait for compatible blood to be prepared. O negative blood may be given whilst compatible blood is prepared for them. O negative blood is sometimes called a universal donor as anyone can receive it regardless of their blood group. (HSIB maternity team)

## **Unstable lie**

(when a baby changes position/presentation frequently after 36 weeks)

## **Upper gastrointestinal tract**

(the oesophagus, stomach and first part of a mother's/baby's small intestine)

## **Urate crystals**

Urate crystals may be seen in a newborn baby's nappy in the first few days of life. They are found in concentrated urine and may be a sign that a baby needs to drink more milk. Urate crystals are usually pink, red or orange in colour and powdery. (HSIB maternity team)

## **Urinalysis**

Urinalysis is a test that may be used to examine a sample of a mother's/baby's urine. The test may help to find conditions a mother/baby has that need treatment or further investigation. (HSIB maternity team)



## Urinary tract infection

A urinary tract infection is an infection that may affect a mother's/baby's bladder, urethra or kidneys. Sometimes the infection may need to be treated with antibiotic medication. (HSIB maternity team)

## Uterine artery Dopplers

Uterine artery Doppler measurements, to check the blood flow to a mother's uterus, may be performed during an ultrasound scan (USS). Uterine artery Doppler measurements are usually performed between 20-24 weeks. If the measurements are outside the expected range this suggests the baby has an increased chance of being small for gestational age at birth and that the mother has an increased chance of developing blood pressure problems during the pregnancy. Women with abnormal uterine artery Doppler measurements may be referred for serial growth USS from 26-28 weeks and may receive additional blood pressure monitoring. Further information from: **RCOG - Management of small for gestational age babies**

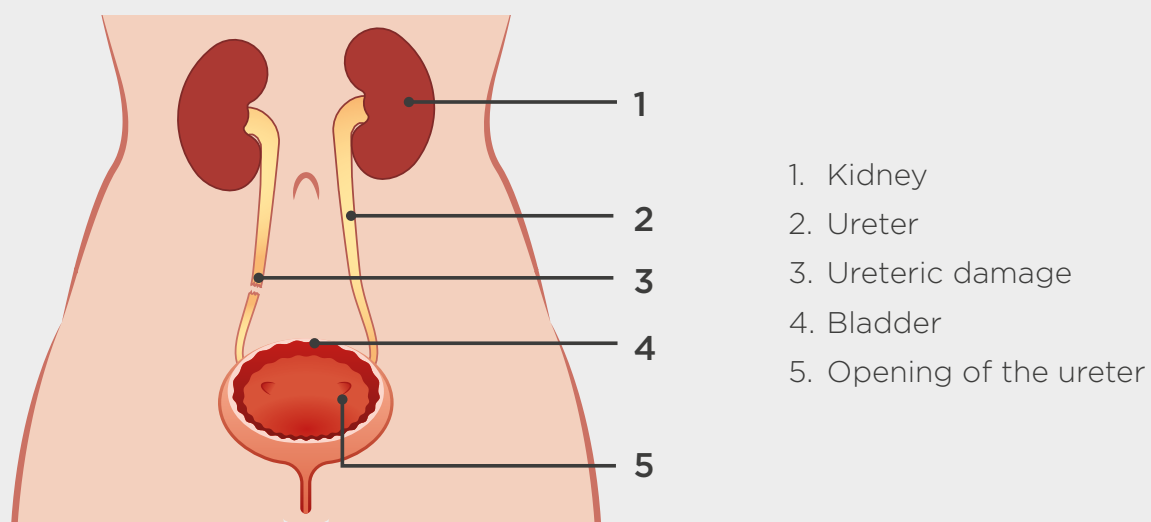
## Uterine artery rupture

Uterine artery rupture is a rare, life-threatening condition where a major blood vessel in a mother's uterus tears open. This may cause severe bleeding. Prompt recognition and management are needed. (HSIB maternity team)

## Uterine atony

Uterine atony is a condition occurring after childbirth when a mother's uterus does not contract. This may lead to a larger than expected blood loss. (HSIB maternity team)

## Ureteric damage



The ureter is the tube which carries urine from a mother's kidneys to her bladder. Damage to the ureter is an uncommon complication at caesarean birth and may prevent the ureter working properly or effectively. As a result, surgical repair may be needed. (HSIB maternity team)



## **Uterine dehiscence**

Uterine dehiscence is the opening of the muscle layer of a previous caesarean birth scar on a mother's uterus, with the outer layer of the uterus [serosa] remaining intact. (HSIB maternity team)

## **Uterine fibroids**

Fibroids are non-cancerous growths that develop in or around the womb (uterus). The growths are made up of muscle and fibrous tissue and vary in size. They're sometimes known as uterine myomas or leiomyomas.

Further information from: **NHS - fibroids**

## **Uterine perforation**

(a hole or break in the wall of a mother's uterus)

## **Uterine rupture**

A full-thickness tear in a mother's womb (uterus) during pregnancy or childbirth. A baby or placenta can be pushed through the rupture and into the abdominal cavity.

Uterine rupture is a rare event which requires urgent attention. It is associated with significant complications for both a mother and baby. (HSIB maternity team)

## **Uterine tachysystole**

Uterine tachysystole describes the presence of more than five contractions in 10 minutes over a period of at least 20 minutes. It may occur spontaneously, or may be caused by medicines given to induce labour. It is not associated with any changes in a baby's heart rate pattern. (HSIB maternity team)

## **Uterine tamponade balloon**

A uterine tamponade balloon can be used in the management of post-partum haemorrhage. The balloon is placed into the uterine cavity and filled with fluid to create pressure (tamponade) against the internal wall of the uterus and reduce blood loss. (HSIB maternity team)

## **Uterine torsion**

(a pregnancy complication when a mother's uterus rotates more than 45 degrees).

## **Uteroplacental malperfusion**

Uteroplacental malperfusion can be seen on histological (under a microscope) examination of the placenta. It is suggestive of reduced placental function and is associated with poor neonatal outcomes. (HSIB maternity team)

## **Urticarial vasculitis**

Urticarial vasculitis, sometimes called cutaneous vasculitis, is a condition where there is inflammation (swelling) of the small blood vessels in a mother's skin. (HSIB maternity team)

# V

## **VACTERL association**

VACTERL is a description used for a collection of symptoms and conditions which may be associated with each other. These include:

- **Vertebral (spinal) defects**
- **Anal/rectal anomalies**
- **Cardiac defects**
- **Tracheal/oesophageal abnormalities**
- **Renal (kidney) abnormalities**

If there are no cardiac abnormalities, it may be referred to as VATER association. It is not known what causes VACTERL association, and the abnormalities are known to develop very early in pregnancy.

Further information from **GOSH - VACTERL association**

## **Vacuum-assisted closure dressing**

Vacuum-assisted closure, sometimes called negative pressure wound therapy, applies gentle suction to a mother's wound to encourage healing. (HSIB maternity team)

## **Vacuum mattress**

A vacuum mattress is a medical device that may be used to immobilise a mother before moving them from one location to another. A sheet may be placed on the vacuum mattress which is then placed on a stretcher or spinal board. A mother can then be placed on the mattress and the sides of the mattress brought up around her. The air is then removed from the mattress making it rigid around her body. (HSIB maternity team)

## **Vaginal birth after caesarean birth**

In mothers who have had a previous caesarean birth, the options available to them are planned repeat caesarean birth or vaginal birth after previous caesarean birth (VBAC). Planned VBAC is a clinically safe choice for most mothers with a single previous lower segment caesarean birth. Mothers should be informed that planned VBAC is associated with approximately 1 in 200 chance of uterine rupture. There is a 72-75% chance of successful VBAC. Mothers who have had two or more caesarean births may be offered VBAC after counselling with a senior obstetrician.

Further information from: **RCOG - birth options after caesarean birth**

## **Vaginal examination**

A mother may be offered a vaginal examination during her pregnancy or labour. During a vaginal examination, a clinician will insert two fingers into a mother's vagina to assess the vagina, cervix (neck of her womb) and, during labour, the position of the baby's head within the birth canal. A vaginal examination may be

offered for several reasons including to break the waters around a baby, to insert medications for induction of labour and to assess the opening of a mother's cervix. (HSIB maternity team)

### **Vaginismus**

Vaginismus describes a sudden uncontrolled tightening of a mother's vaginal muscles during [select if appropriate] intercourse or an internal procedure which can be painful and distressing.

Further information from: **NHS - vaginismus**

### **Valsalva manoeuvre**

The Valsalva manoeuvre involves a mother exhaling forcefully against a closed airway (keeping her mouth closed and pinching her nose). The Valsalva manoeuvre may be used to slow down a mother's heart when it beats faster than expected (supraventricular tachycardia). (HSIB maternity team)

### **Variable rate intravenous insulin infusion**

The infusion of intravenous insulin at a variable rate according to regular blood glucose measurements with the aim of controlling blood glucose levels, within a specified range. The Variable rate intravenous insulin infusion (VRIII) is usually accompanied by an infusion of fluid containing glucose to prevent insulin-induced hypoglycaemia (low blood sugars). VRIII is sometimes called an insulin sliding scale.

Further information from: **Diabetes UK - VRIII**

### **Vasa praevia**

Vasa praevia is a very rare condition affecting between 1 in 1200 and 1 in 5000 pregnancies. It is where blood vessels travelling from a baby to the placenta, unprotected by placental tissue or the umbilical cord, pass near to the cervix. These blood vessels are very delicate and can tear when in labour or when waters break. This is very dangerous as the blood that is lost comes from a baby. Babies only have a small amount of blood in their bodies, so they don't need to lose much to become very unwell or even die.

Further information from: **RCOG - vasa praevia**

### **Vascular/venous malformation**

Vascular or venous malformations arise from genetic changes that cause certain veins to have an abnormal shape, to be abnormally located, or to be abnormally numerous and bulky.

For more information see **GOSH - vascular malformations**

### **Vasopressor**

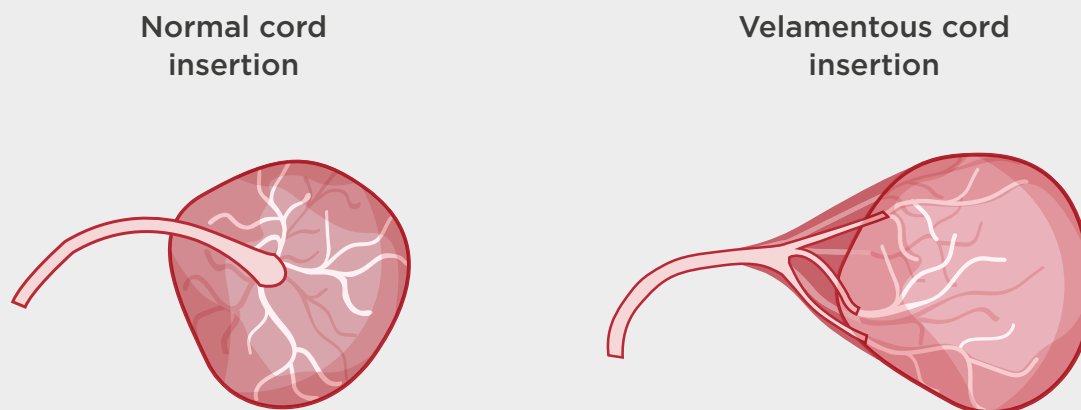
(A medicine used to increase a mother's/baby's blood pressure)

## Vein of Galen malformation

Vein of Galen malformation (VGM) is a rare condition which affects the blood vessels in a baby's brain. Unusual connections between the blood vessels may cause an increase of blood flow around the baby's brain. Drainage of blood from the brain is through a single blood vessel at the base of the brain. This blood vessel is called the vein of Galen.

Further information at: **GOSH - VGM**

## Velamentous cord insertion



Normally the umbilical cord inserts into the middle of the placenta as it develops. In velamentous cord insertion the cord inserts into the membranes then travels within the membranes to the placenta. The exposed blood vessels are not protected and are vulnerable to rupture. (HSIB maternity team)

## Venesection

Venesection is a procedure where a clinician removes a small volume of blood from a mother's circulation. A venesection may be recommended as a therapeutic treatment to reduce the number of red blood cells, and thin a mother's blood, or to lower iron levels. (HSIB maternity team)

## Venous air embolism

(when air enters a vein and causes a blockage)

## Venous thromboembolism

A thrombosis is a blood clot in a blood vessel (a vein or an artery). Venous thrombosis occurs in a vein. Veins are the blood vessels that take blood back to the heart and lungs whereas arteries take the blood away. A deep vein thrombosis (DVT) is a blood clot that forms in a deep vein of the leg, calf or pelvis. Venous thrombosis can be serious because the blood clot may break off and travel in the bloodstream until it gets lodged in another part of the body, such as the lung. This is called a pulmonary embolism (PE) and can be life threatening. (HSIB maternity team)

## Ventilation Care Bundle

A cluster of four evidenced-based safety measures that decrease the risk to a mother of mechanical ventilation while in the intensive care unit.

- administering venous thromboembolism (VTE) prophylaxis
  - administering medications to prevent gastric ulceration
  - elevating the head of the bed between 30 and 45 degrees
- providing a daily sedation break or holding a sedative for the purpose of assessing whether a mother can breathe. (HSIB maternity team)

## Ventilation pressures

Ventilation pressures are measurements of the amount of pressure that is required to open a mother's/baby's lungs during the process of a ventilator breathing in and out. The peak inspiratory pressure (PIP) is the maximum pressure that a ventilator delivers at the peak of breathing in. The positive end expiratory pressure (PEEP) is the pressure that the ventilator allows to remain in the lungs at the end of breathing out to maintain a degree of lung expansion between breaths. Ventilator pressures are measured in centimetres of water (cmH<sub>2</sub>O) and are usually expressed as PIP/PEEP e.g. 30/6cmH<sub>2</sub>O. (HSIB maternity team)

## Ventilator associated pneumonia (mother)

Ventilator associated pneumonia is a common hospital infection that occurs in 10-20% of mothers who are ventilated in an ICU. Ventilator associated pneumonia describes a condition where a mother's lungs become infected after they have been intubated (plastic tube inserted through the mouth into the windpipe) and their breathing is being supported with a ventilator. (HSIB maternity team)

## Ventouse

A ventouse (vacuum extractor) is an instrument that uses suction to attach a plastic or metal cup on to a baby's head. The obstetrician waits until a mother is having a contraction and then asks her to push while they gently pull to help birth a baby vaginally.

Further information from: **RCOG - assisted vaginal birth**

## Ventricular and atrial ectopic beats

Ventricular and atrial ectopic beats are extra heart beats that occur outside a mother's normal heart rhythm. They may occur in pregnancy and are usually harmless. (HSIB maternity team)

## Ventricular fibrillation

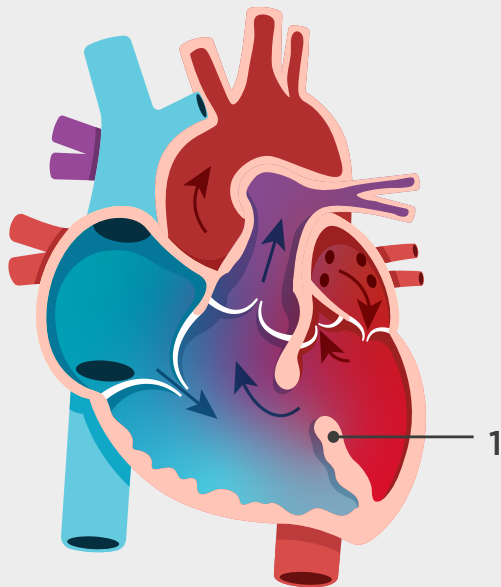
A rare rhythm of rapid and disorganised heartbeats quickly leading to loss of consciousness and sudden death if not treated immediately. Ventricular fibrillation may be treated with an electric shock from a defibrillator.

Further information from: **NHS - ventricular fibrillation**



## Ventricular septal defect

### In a baby



1. Ventricular septal defect

Ventricular septal defect is a type of congenital heart disease. In most cases it is known that this occurs during the early development stages of a baby. This is a hole in the ventricular septum (the wall between the two ventricles, lower pumping chamber of the heart). (British Heart Foundation 2019).

### In a mother

This is the presence of one or more holes in the thin wall (the septum) that separates the two lower chambers of a mother's heart (the ventricles). It causes blood to leak back from the left to the right ventricle. It is the most common birth defect of the heart.

Further information from: **NHS - congenital heart disease**

## Ventricular tachycardia

Ventricular tachycardia (VT) is when the lower chambers (ventricles) of a mother's heart beat faster than expected and this means that her heart is not able to work effectively. This may happen when the electrical signal for the heartbeat starts in the ventricles rather than through the usual route of starting in the upper chambers of the heart.

Symptoms of ventricular tachycardia may include;

- **weakness**
- **dizziness**
- **chest pain**
- **palpitations**

- **feeling nauseous**
- **cardiac arrest** (the heart stops beating) - this is a rare complication which may happen if the VT continues for a longer time or the heart beats very fast in a heart rhythm that is sometimes called pulseless VT.

VT may resolve by itself or sometimes may need to be treated with medicine. (HSIB maternity team)

## Ventriculomegaly

The ventricles are cavities within the brain filled with cerebrospinal fluid. When these cavities are enlarged it is known as ventriculomegaly. It can sometimes be associated with hydrocephalus (extra fluid in the brain). Ventriculomegaly can be diagnosed antenatally through ultrasound scanning. It occurs in around 2% of pregnancies.

Further information from: **GOSH - ventriculomegaly**

Or

## Ventriculomegaly

(enlargement of the ventricles [fluid filled spaces] in a mother/baby's brain).

## Video laryngoscope

A video laryngoscope is a medical device that may be used to facilitate the intubation of a mother. An integrated camera and display monitor provides indirect visualisation of the mother's upper airway to help placement of a breathing tube between the vocal cords and into the trachea, to maintain the airway. (HSIB maternity team)

## Villitis of unknown etiology

Villitis of unknown aetiology (VUE) is inflammation of the structures covering the surface of the placenta. These structures ensure a baby receives enough nutrients and oxygen from their mother. VUE is associated with intrauterine growth restriction (IUGR), brain injury due to lack of oxygen and stillbirth. In high grade VUE the inflammation is widespread within the placenta. This leads to the part of the placenta where oxygen and nutrient exchange takes place (terminal villi) losing their blood supply and fibrotic (non-functional) tissue developing. VUE cannot be identified antenatally and can only be diagnosed by histology of the placenta. VUE cannot be treated or prevented. VUE has been reported to recur in up to 30% of subsequent pregnancies. (HSIB maternity team)

## Villous immaturity

Villous immaturity may be seen when the placenta is examined under a microscope. Parts of the microscopic structure of the placenta are called villi. In villous immaturity these structures are not fully developed. (HSIB maternity team)

## **Vitamin B12 deficiency anaemia**

Vitamin B12 deficiency anaemia occurs when a lack of vitamin B12 causes a mother's body to produce red blood cells that cannot function properly. Red blood cells are important because they carry oxygen around the body using a substance called haemoglobin. If a mother does not have enough vitamin B12 during her pregnancy, this can increase the risk of the baby developing birth defects. A vitamin B12 deficiency can be the result of a variety of problems and may be treated with a change in diet, tablet supplements or regular vitamin B12 injections, depending on the cause. A mother will need blood tests to ensure her treatment is working and that her blood has enough haemoglobin. (HSIB maternity team)

## **Vitamin D**

Vitamin D is a nutrient needed by the body to keep a mother's bones, teeth and muscles healthy. Vitamin D is found in some foods and may be made by the body from direct sunlight on a mother's skin when she is outdoors. Pregnant and breastfeeding mothers are known to be at risk of vitamin D deficiency and should be advised to take a daily vitamin D supplement to support the growth of a baby. Mothers who have darker skin, or limited exposure to sunlight, may be advised to take a higher daily dose of vitamin D. (HSIB maternity team)

## **Vitamin K for newborn babies**

After birth all babies are recommended to have an injection of vitamin K. This helps to prevent a rare bleeding disorder called haemorrhagic disease of the newborn. Alternatively, vitamin K may be given as drops onto a baby's tongue; this requires more than one dose. (HSIB maternity team)

## **Not for vitamin K at birth**

## **Vitamin K**

Vitamin K is needed by a mother/baby to support their blood clotting, help wounds to heal and to keep bones healthy. (HSIB maternity team)

## **Viscoelastic haemostatic assays**

Viscoelastic haemostatic assays use a specialised instrument to measure how efficiently a mother's blood clots and how easily these clots are then broken down. (HSIB maternity team)

## **Vocal cord paralysis (palsy)**

Vocal cord paralysis occurs when the nerve impulses to a mother's voice box (larynx) are disrupted. This results in paralysis of her vocal cord muscles. Vocal cord paralysis can affect a mother's ability to speak or breathe. (HSIB maternity team)





## **Volume targeted ventilation**

Volume targeted ventilation (VTV) is a type of invasive ventilation which automatically delivers a prescribed amount of gas (tidal volume) to a baby's lungs. The pressure of the gas is automatically adjusted by the ventilator and may vary from breath to breath to protect the baby's lung from injury. VTV may be a useful option in providing respiratory support to preterm or small babies whose lungs may be stiffer and at risk of injury. (HSIB maternity team)

## **Von Willebrand disease**

Von Willebrand disease (VWD) is an inherited condition where a mother's/baby's blood is not able to clot in the expected way. Usually when a mother/baby has an injury, substances in the blood, called clotting factors, mix with platelets to make the blood form a clot. The clot will help the bleeding to stop by filling the space where the injury is. When a mother/baby has Von Willebrand disease, they may not have enough Von Willebrand factor (a type of clotting substance) in their body and this means that when they have an injury they may bleed for longer. Further information from: **NHS - Von Willebrand disease**

## **VQ scan**

A ventilation and perfusion scan which examines air and blood flow within a mother's lungs to diagnose blood clots (pulmonary emboli). (HSIB maternity team)

# W

## **Walcher's position**

Walcher's position is when a mother sits on the edge of a bed, lies back and allows her legs to hang down freely towards the floor. The aim is to open a mother's pelvic inlet to allow her baby to descend in the birth canal. (HSIB maternity team)

## **Wallerian degeneration**

When a mother's nerve fibre is damaged or cut, the end farthest from the nerve cell body starts to decay and change. This is called Wallerian degeneration. (HSIB maternity team)

## **'Ward round'**

(a clinical review of all mothers/babies on a ward)

## **Waters' circuit**

A Waters' circuit is a breathing system that allows delivery of high flow oxygen to a mother's lungs. As the pressure is variable it may be preferred by anaesthetists over a simple bag valve mask. (HSIB maternity team)

## **Watershed territory**

Watershed territory refers to vulnerable areas within a mother's/baby's brain where the tissue is at the boundary of supply by different blood vessels. These areas of the brain are at increased risk of injury. (HSIB maternity team)

## **Water sip test (swallow test)**

A water sip test is usually carried out by a speech and language therapist and gives an assessment of a mother's swallowing abilities. The time it takes to drink the water and the number of swallows required will be recorded. (HSIB maternity team)

## **White cell count**

A white cell count (WCC) is a test that measures the number of white blood cells in the body. Having a higher or lower number of WCCs than normal may indicate an underlying condition or infection. (HSIB maternity team)

## **White coat syndrome**

White coat syndrome is the name given to a rise in a mother's blood pressure caused by anxiety during a health professional review. (HSIB maternity team)

## Whooley questions

The Whooley questions are a group of questions which a mother may be asked during pregnancy to assist in the identification of depression and anxiety. They are usually asked as part of a wider discussion about a mother's mental health and wellbeing. The questions a mother may be asked are;

- During the past month, have you often been bothered by feeling down, depressed or hopeless?
- During the past month, have you often been bothered by having little interest or pleasure in doing things?
- Over the last 2 weeks, how often have you been bothered by feeling nervous, anxious or on edge?
- Over the last 2 weeks, how often have you been bothered by not being able to stop or control worrying?

(HSIB maternity team)

## Whooping cough

Whooping cough, sometimes called pertussis, is a bacterial infection of the lungs and breathing tubes. A mother/baby may have a cough that can be worse at night. A 'whoop' sound (gasp) is often made between the coughs, which may be productive. Whooping cough is sometimes associated with more serious problems including dehydration, breathing problems, pneumonia and seizures. A vaccination is available to help to protect mothers/babies from getting whooping cough. (HSIB maternity team)

## Wide QRS complex

The QRS complex is a part of a mother's electrical heart rate pattern seen on an electrocardiogram (ECG). A wide QRS complex may be associated with high levels of potassium in a mother's blood. (HSIB maternity team)

## 'Wizard'

(software within an electronic patient record system to support data entry and may additionally support decision making)

## Wolff Parkinson White syndrome

Wolff Parkinson White (WPW) syndrome is a relatively common heart condition that may cause the heart to beat abnormally fast for periods of time. It is caused by an extra electrical connection in the heart. This problem is present at birth, symptoms may not develop until later in life. Many cases are diagnosed in otherwise healthy young adults.

Further information from: **NHS - Wolff Parkinson White syndrome**

## World Health Organization surgical safety checklist

The World Health Organization (WHO) surgical safety checklist is a tool developed with the aim of reducing errors/adverse events, improving teamworking and communication in the operating theatre. (HSIB maternity team)



# Z

## **Zavanelli manoeuvre**

The Zavanelli manoeuvre is a technique that may be used to assist the birth of a baby, during a shoulder dystocia, when internal manoeuvres have been unsuccessful. The Zavanelli manoeuvre involves rotating a baby's head and then pushing it back into the birth canal. A caesarean birth may then be performed to birth the baby. (HSIB maternity team)

## **Zika virus**

Zika virus is an infection that is mainly spread by a certain type of mosquito, found in some parts of the world. For most people it is mild and not harmful. In pregnancy, Zika virus can cause problems with the developing baby's brain and result in the baby having an unusually small head (microcephaly). If a mother has recently visited a high risk country, ultrasound scans may be required to monitor the growth of the baby.

Further information from: **NHS - Zika virus**

WWW.HSIB.ORG.UK


 @hsib\_org



# Further information

More information about HSIB – including its team, investigations and history – is available at **[www.hsib.org.uk](http://www.hsib.org.uk)**

If you would like to request an investigation then please read our guidance before contacting us.

 **@hsib\_org** is our Twitter handle. We use this feed to raise awareness of our work and to direct followers to our publications, news and events.

## Contact us

If you would like a response to a query or concern please contact us via email using **[enquiries@hsib.org.uk](mailto:enquiries@hsib.org.uk)**

We monitor this inbox during normal office hours - Monday to Friday from 09:00 hours to 17:00 hours. We aim to respond to enquiries within five working days.

To access this document in a different format – including braille, large print or easy read – please contact **[enquiries@hsib.org.uk](mailto:enquiries@hsib.org.uk)**

© Healthcare Safety Investigation Branch copyright 2023. Any enquiries regarding this publication should be sent to us at **[enquiries@hsib.org.uk](mailto:enquiries@hsib.org.uk)**