University Hospitals Coventry and Warwickshire NHS Trust

Patient information

Maternity

Anaesthesia for planned caesarean birth

Your anaesthetist is a doctor who will care for you before, during and after your caesarean operation. You can help us in this by:

- Having any necessary blood tests.
- Reading some basic information printed here, and also on the world wide web.
- Coming to the anaesthesia clinic in the week before your caesarean to discuss your care and necessary preparations.
- Preparing for your operation day with the right food, drink and medicines.

Reading about your anaesthetic

A caesarean birth is also sometimes known as a caesarean section.

As well as this information, there is good material on the **https://www.LabourPains.com** web site. We recommend that you go to look at this web site – go directly or use the QR code on the right. It has reliable information from doctors, midwives and mothers, on pain relief and anaesthesia choices.

You may want to read the pages on:

- C-section information sheet.
- Frequently asked questions for C-Section.
- Information for birthing partners.

LabourPains.com

This web site also has this same information in many different languages. The Royal College of Anaesthetists has more general leaflets about anaesthesia at https://www.rcoa.ac.uk/patientinfo and this may be useful if you want more in-depth information.

Parts of this leaflet were taken from the above sources.

This leaflet is linked to the 'Enhanced Recovery after Caesarean Section' part of our main Caesarean Section booklet, which focuses on the preparation needed to make sure a good recovery.

Who are anaesthetists?

Anaesthetists are doctors with specialist training who:

- Discuss the type or types of anaesthetic that are suitable for your operation. If there are choices available, your anaesthetist will help you choose what is best for you.
- Discuss anaesthesia risks with you.
- Agree a plan with you for your anaesthetic and pain control.
- Are responsible for giving your anaesthetic and for your wellbeing and safety throughout your surgery.
- Manage blood transfusions if needed.
- Plan your care, if needed, in the intensive care unit.
- Make your experience as calm and pain free as possible.

What is anaesthesia?

Anaesthesia stops you feeling pain and other sensations. It can be given in different ways and does not always make you unconscious.

We usually recommend **spinal anaesthesia** for a planned caesarean delivery**.** You will be numb from the middle of your chest downwards during and immediately after surgery – it is more powerful than a labour epidural. You are awake (conscious) and pain-free. It will be more like normal birth, and your partner is with you when the baby is born.

General anaesthesia gives a state of controlled unconsciousness. You are asleep and feel nothing. A very small number of mothers choose or are recommended to have general anaesthesia for caesarean birth. This is usually if you are expecting very complicated surgery with a high risk of bleeding. If you have a general anaesthetic, we usually need to use more coronavirus protective equipment, and it will usually take longer.

Preparing for your operation

Speaking to the anaesthetist is a very useful opportunity for you to ask any questions that you have about the anaesthetic and about coming into hospital generally. If we do not have all the answers you need, we will be able to help you find out more.

We will arrange for you to come to see us in the anaesthesia clinic, usually on the Friday afternoon in the week before your delivery. We do this to prepare you for your operation, discuss your anaesthetic, take blood tests and give

you the antacid tablets (omeprazole). You may see the same or a different anaesthetist to the one who will be at your caesarean delivery.

If you are self-isolating, we will telephone you instead. (A call may appear on your telephone as 'unknown number'.) You may need to come in later for a blood test. We will not be able to give you the tablets beforehand; you can take one when you arrive on the morning of your delivery.

Most of the mothers having planned caesarean delivery will go home the day after the operation, and preparation for this starts here. We will check the details of your pregnancy, your medical history and any allergies. We will discuss with you whether we should change our usual routine.

Please tell us if you are in coronavirus isolation or have a confirmed case, or if you have been admitted to any other hospital in the last twelve months.

Blood tests may have to be done the day before your caesarean birth, because some test results can change in a very short time in pregnancy. As long as the blood test is received in the hospital by midday the day before, the sample should be ready in time.

You can get blood tests done in the University Hospital (in antenatal clinic or main outpatients), in the Walk-In Centre in the city centre, at St Cross Hospital in Rugby, or at your local GP surgery or pharmacy. You can get details on the hospital web site if you search for "**UHCW blood tests**".

Most **medicines** should be continued before an operation, but there are some important exceptions that you should ask about if anything is unclear.

Heparin / enoxaparin / Clexane – do not take this in the 12 hours before your anaesthetic if you are taking the blood clot prevention dose, or 24 hours if you have had a blood clot and are on a treatment dose. Taking Clexane may mean you cannot have a spinal anaesthetic and may have to have a general anaesthetic.

Insulin / metformin – take as normal the day before your operation if you have diabetes, but not on the morning of your operation.

Inhalers for asthma – take as normal and bring the reliever (usually blue, often called salbutamol) with you.

Antacid treatment – check with your anaesthetist. It is usually better to carry on with this as you need to.

You must **book in advance** for your birth partner to visit on the ward. Go to https://www.uhcw-visitors.co.uk/ to book for your partner to visit you on maternity ward 25 on the afternoon of your caesarean birth and on the following afternoon.

These **fasting and drinking instructions** are important to protect you from acid in your stomach getting into your lungs during an anaesthetic.

- Take the first antacid tablet (omeprazole) the night before surgery – about 22:00, or 10 pm.
- Don't eat any food after 02:00 (2 am) on the day of the operation.
- In the morning, take the second antacid tablet about 07:00 (7 am). Before you come to the hospital have a cup of coffee or tea if you like, with a **small** amount of milk if you need it. Have no breakfast or food but do have as much plain water as you like. **If you are not diabetic**, have a non-fizzy carbohydrate energy drink. (Put it in the fridge without a bottle cap, and it will be flat in the morning.) Finish all this before coming to hospital.
- You should not smoke on the day of your operation.
- In the hospital, you can have as much plain water as you need to keep comfortable. You can drink water while waiting for your surgery.

Coming into hospital on your delivery day

We usually ask you to come in at 07:30 (half past seven in the morning). Telephone us in advance on **024 7696 7333** if you or your partner are in coronavirus isolation or you or your partner have any covid-19 symptoms such as cough or fever. Your partner may come in too, if they have no covid-19 symptoms. Advance booking is not needed for this.

Your anaesthetist will meet you on your delivery day before your operation. They will refer to the discussion you had in your assessment. They will check that you are happy with the plan and whether you have any more questions. You might want to note down any questions or things you want to raise.

Please bring warm clothing such as a dressing gown and slippers, so you don't become too cold.

You may need to have more blood tests on the day of your surgery, to check your haemoglobin level and response to iron treatment, or to update your blood group check if your bleeding risk is higher than normal.

If you go into labour before the scheduled day for your caesarean, don't worry.

Call the midwives in labour ward triage and tell them what is happening. If they ask you to come into hospital, don't eat anything. Keep drinking plain water. Do not take any Clexane injections.

We will usually do your caesarean birth soon after you get to triage, although if you are in labour there can be reasons to recommend that you have a vaginal delivery.

Your operation may take place at any time in the morning and sometimes in the afternoon.

Further checks will be done as you arrive in the operating department, before the anaesthetic starts. You will be asked to confirm your name, the operation you are having, when you last ate or drank and your allergies. These are routine checks that will be repeated at steps in your treatment.

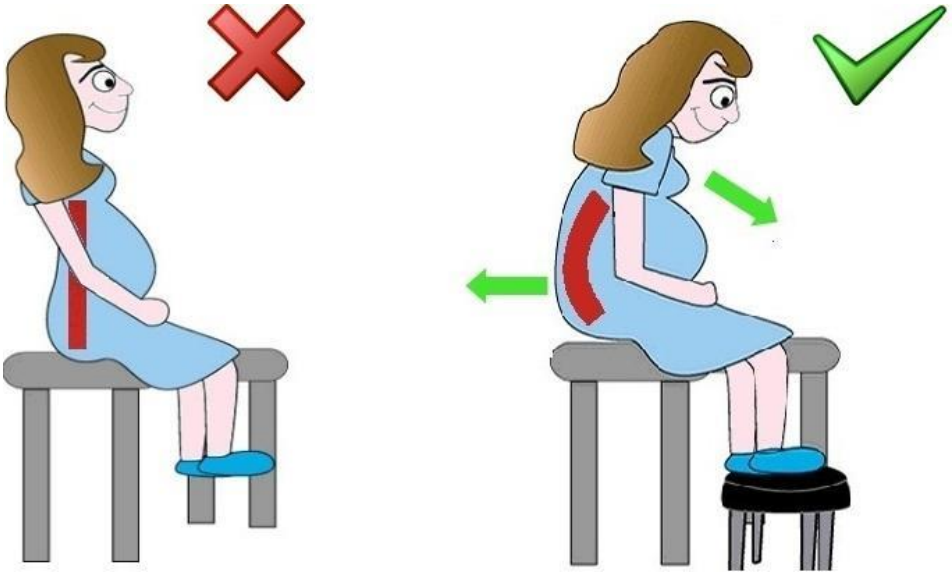
Spinal anaesthetic for caesarean delivery

Your anaesthetic will start in the operating theatre. We will usually bring your partner into the operating theatre with you as long as they are not in coronavirus isolation and do not have any covid-19 symptoms. Your anaesthetist will be working with a trained assistant. The anaesthetist or the assistant will attach machines that measure your heart rate, blood pressure and oxygen levels. There will be about ten specialist staff in the operating theatre with you, each with their own job.

Spinal anaesthetics start with a needle being used to put a thin plastic tube (cannula) into a vein in the back of your hand or arm so that we can start an IV drip – after a small numbing injection. If needles worry you, please tell us. A needle cannot usually be avoided, but there are things we can do to help.

When you have a spinal anaesthetic:

- We clean your back with a sterilising spray – this is very cold for a few seconds.
- We ask that you help us by getting in a good position for spinal anaesthesia, with your heels together, your knees apart and curled forward over a pillow. Relax your back like this:



Picture from Liverpool Women's Hospital, https://epostersonline.com/oaa2016/node/570

- Your anaesthetist will ask you to keep quite still while the injections are given – a small numbing injection in the skin and then a single spinal anaesthetic injection.
- You may notice a warm tingling feeling as the anaesthetic begins to take effect, and heavy legs.
- Many women feel a bit sleepy during spinal anaesthesia – this is normal.
- Your operation will only go ahead when you and your anaesthetist are sure that your body is properly numb below your chest so that you cannot feel pain, cold or sharp sensations.
- You will be awake and aware of your surroundings. A screen shields the operating site, so you and your birth partner will not see the operation. We may be able to drop this screen for delivery if you ask us to in advance.
- You will not feel sharp or cutting pains. You will probably feel some rummaging around, or pushing and pulling, when the baby is delivered. Some women say it is like a heavy pressure on them for a few seconds.
- You will not be able to feel or move your legs until the spinal anaesthetic wears off about three hours after the operation.
- Your anaesthetist is always near to you and you can speak to him or her whenever you want.

Like any medical procedure, spinal anaesthetics do carry a risk of complications. Please read the details on the https://www.LabourPains.com web site and at the end of this information booklet.

Briefly, spinal anaesthetics generally work well and give a good birth experience. A small number do not work well when we check them, and the injection may need to be repeated. Your blood pressure may fall so we use drugs to support it – if it falls too much you may feel sick. Some women experience shakes or shivers – this is more common with urgent procedures in labour when you are tired, or if you get cold before the operation. There is also a very small chance that you will develop a serious headache the next day, or that when you go home you may have a small numb patch on your leg for a few weeks. See the details at the end of this information leaflet and ask us if you have any concerns.

After a final safety check of your name and details, the operation will start. Your baby will be born quite early in the operation. The midwife will do a quick check that everything is alright. If it is, you will be offered 'skin-to-skin', where your baby rests on your chest. Your anaesthetist will be giving medicines to control bleeding in your uterus (womb) after the delivery and the surgical team will start to close and dress the wound. Towards the end of the

operation your baby and partner will go out to theatre recovery and you will join them a few minutes later.

The time between walking into the operating theatre, and being wheeled out to recovery, will be about an hour and a half. Your spinal anaesthetic will wear off a few hours after the injection. You should be able to move your legs around within four hours, and everything should be back to normal within six hours. If it is not, let your midwife know immediately.

General anaesthesia for caesarean delivery

A small number of women are recommended to have a GA (general anaesthetic) for caesarean. We will explain it to you at the clinic and on the operation day and there is information about GA on the https://www.LabourPains.com site.

We can use GA in the rare case of the spinal anaesthetic not working well enough, and a small number of women choose to have a GA. It is a safe way to have a caesarean, but the experience is different. Your birth partner will not be with you at the delivery, and we will have to use more personal protective equipment to prevent coronavirus transmission, making the process longer and a little less pleasant.

Pain and nausea can sometimes be more difficult to control well after GA.

Bleeding and caesarean births

Most women having caesarean birth do not bleed heavily, but a small number do, and it is a possibility in any caesarean delivery. We help you with this in several ways.

Medicines to control bleeding

We use medicines that make your uterus contract, such as oxytocin or ergometrine, and we can also use TXA (tranexamic acid) to make your blood clot more effectively.

Red cell salvage

We offer this routinely. We can collect the blood lost at caesarean delivery, which averages about half a litre or just over a pint. If you lose more than this, then we can process the blood and return it to you. Blood is returned for about one woman in twelve (1 in 12) having caesarean delivery. If you have sickle cell haemoglobin in your blood, we may need to check levels before giving blood back. If you have rhesus-negative blood group and we use cell salvage it is rarely possible that you may need a slightly higher dose of anti-D after the delivery.

Blood transfusion

We avoid this unless it is really needed, perhaps because of heavy bleeding or severe anaemia. About one in a hundred (1 in 100) women may receive one at some point during or after the caesarean. You can ask for information about the risks and benefits of blood transfusion.

Iron drip in recovery or iron tablets for 3 months

If your haemoglobin level is low or you bleed a bit more than average, we may prescribe iron tablets for three months. If the iron tablets won't be enough on their own, then we may prescribe an iron drip (Ferinject) for you in theatre recovery.

Pain relief after caesarean birth

Good pain relief is important so that you can move around, protect yourself from complications and go home. Some people need more pain relief than others. It is much easier to relieve pain if it is dealt with before it gets too bad. Pain relief can be increased, given more often, or given in different combinations. Occasionally, pain is a warning sign that all is not well; therefore, you should always report it to your midwives and seek their advice and help.

Our standard pain relief routine for caesarean delivery uses a number of drugs to help you cope. These drugs will cross to your baby in breastfeeding, but in very low concentrations and they will not harm your baby.

- **Numbing injection** for your skin before using intravenous or spinal needles.
- **Spinal anaesthetic** (into the spine) to numb you for three to four hours until after the operation. You will also be unable to feel or move your legs during this time.
- **Diamorphine** in with the spinal anaesthetic. This will give you excellent pain relief for about 12 to 24 hours after the operation, the most difficult time, but it does make many women itchy. About one in twenty (1 in 20) women will need an antihistamine tablet to reduce the itch.
- **Diclofenac by suppository** (in your rectum or bottom). We usually give two doses of this, at the end of the operation and one more, before changing to **ibuprofen tablets** (taken by mouth), four times a day. Tell us if you cannot take these drugs, possibly because you have asthma. If you know that these drugs do not make your chest tight then they are safe even for people with asthma.

- If you cannot take ibuprofen, we will usually prescribe regular **dihydrocodeine** tablets, four times a day.
- **Paracetamol tablets** four times a day.

  You will need to take the paracetamol and ibuprofen for a few days after you go home.
- **Morphine liquid** by mouth as you need it, while you are in hospital.

When you are able to cope with looking after yourself and your baby, you will be able to go home. With planned caesarean birth this is usually on the next afternoon.

Preventing blood clots after the operation

We will fit you with compression stockings to help prevent blood clots in hospital. Many but not all women will be prescribed daily blood-thinning injections for a few days or weeks after caesarean delivery. These are sometimes called Clexane injections. The injections are not painkillers but reduce the risk of blood clots.

Risks and side effects of spinal anaesthesia

These details are taken from the https://www.LabourPains.com web site.

The risks of a spinal anaesthetic are shown in a table below. The information comes from published documents. The figures shown in the table are best available estimates and may be different in different hospitals.

Possible problem	How common the problem is
Itching	Common – about **1 in 3 to 10** people, depending on the drug and dose
Significant drop in blood pressure	Common – about **1 in 5**
Anaesthetic not working well enough and more drugs are needed to help with pain during the operation	Occasional – about **1 in 20**
Regional anaesthetic not working well enough for caesarean birth and general anaesthetic is needed	Occasional – about **1 in 50**
Severe headache	Uncommon – about **1 in 500**

Possible problem	How common the problem is
Nerve damage (for example, numb patch on a leg or foot, weakness of a leg)	Effects lasting less than six months: Quite rare – about **1 in 1,000 to 2,000** Effects lasting more than six months: Rare - about **1 in 24,000**
Meningitis	Very rare – about **1 in 100,000**
Abscess (infection) in the spine at the site of the spinal or epidural	Very rare – about **1 in 50,000**
Haematoma (blood clot) in the spine at the site of the spinal or epidural	Very rare – about **1 in 168,000**
Abscess or haematoma causing severe injury, including paralysis (paraplegia)	Very rare – about **1 in 100,000**

Spinal anaesthesia is not a cause of low back ache (other than tenderness for a day or two at the point of injection).

Accurate figures are not available for all of these risks and side effects. Figures are estimates and may vary from hospital to hospital.

Further information

If you need anything else, please contact us and ask for the anaesthetist:

Labour ward triage (24 hours) 024 7696 7333

Antenatal clinic (08:00-17:00) 024 7696 7350

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact us and we will do our best to meet your needs. The Trust operates a smoke-free policy.

To give feedback on this leaflet please email feedback@uhcw.nhs.uk

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