

If you would like more information

If you have any questions about epidural/spinal anaesthesia, you can always talk to a midwife at the Maternity Ward. The midwife or gynaecologist can also help you contact an anaesthetist at the hospital where you are going to give birth.

Epidural and spinal anaesthesia to relieve pain when giving birth

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General

Epidural/spinal anaesthesia is the most effective pain relief you can receive when giving birth. It is effective without making you unconscious.

The difference between epidural and spinal anaesthesia is the depth at which the anaesthetic is injected into your back.

Preparations

Before giving birth, you normally talk to a midwife to decide what kind of pain relief you want. You should not have this kind of anaesthesia if you have certain diseases that affect the nervous system, an infection in your blood, or if you bleed more easily or longer than normal.

Nerves

It is very rare to suffer any serious or long-term effects on your nerves, such as pain, loss of sensation or paralysis from the epidural/spinal anaesthesia itself. The risk in Sweden is approximately one in 200,000.

However, after the birth it is quite common for your nerves to have been affected by the baby's head pressing on the nerve endings that run along the inside of the pelvic bone; this has nothing to do with the epidural/spinal anaesthesia. This pain normally goes away by itself.

Infection

If you suffer from fever, headache or back pain up to three weeks after the epidural/spinal anaesthesia, this could signal an infection. This can sometimes be serious, so you should contact a doctor.



Your baby's heart sounds

As with some other kinds of pain relief, the heart rate of your unborn baby can temporarily change as a result of the epidural/spinal anaesthesia. This does not mean that the baby is unwell. It is more likely due to the rapid drop in the amount of stress hormones and normally returns to normal by itself.

Overdose

Although this is very rare, if the drug used for low-dose epidural anaesthesia is injected into the spinal fluid or into a blood vessel by mistake, there is a risk of an overdose. If this happens, you may suffer a sudden drop in blood pressure, drowsiness, temporary muscle paralysis and difficulty breathing. This is usually harmless and returns to normal by itself. If your blood pressure is low, you may need to have drugs to raise your blood pressure and some additional fluid in your drip.

Why are you given epidural/spinal anaesthesia?

Pain relief when giving birth

Although pain from giving birth differs from woman to woman, most normally want to have some kind of pain relief when they are having a baby. You talk with your midwife to decide which kind of pain relief is best for you.

Epidural/spinal anaesthesia is the best method for relieving pain during labour and is the method that has been studied the most. It is also the most complicated method. Although it is safe, there are some disadvantages and risks, just like all pain relief.

Blocks nerves that transmit pain

This method involves injecting a local anaesthetic that blocks the nerves that transmit pain from the womb and the pelvic floor. It is often mistakenly called spinal cord anaesthesia, but it is not the spinal cord that is being anaesthetised, but the nerves that go from it. It prevents the pain signals from reaching the brain.

The difference between epidural and spinal anaesthesia:

- **Epidural anaesthesia**, EDA, is when the anaesthetic is injected into a narrow cavity called the epidural space, just outside the spinal fluid. A tube is normally used, called an epidural catheter, which remains inserted, enabling us to inject more anaesthetic if needed. You feel the effect of the pain relief after 5-15 minutes.

- **Spinal anaesthesia**, is when the anaesthetic is injected directly into the fluid in the spinal canal with a needle. You quickly feel the effect of the pain relief.

You do not lose consciousness

You do not fall asleep or lose consciousness in any other way from epidural/spinal anaesthesia. It stops you from feeling drowsy and most women can stand up and walk around without any problems.

Epidural/spinal anaesthesia is the most effective pain relief. The anaesthetic means that you can have a drip to stimulate labour. If you do not have the anaesthetic, the drip can cause you pain as the labour becomes more intense.

Sometimes the effect of the anaesthesia is not strong enough. The dose of the anaesthetic or the position of the tube may need to be changed and sometimes the anaesthetist may have to repeat the whole procedure.

Risks and unusual complications

There are risks involved with any kind of anaesthesia. Although epidural/spinal anaesthesia is considered to be a very safe form of anaesthesia, there can be complications in individual cases. These problems can range from mild pain to very rare, but more serious complications.

Headaches

There is a chance that the epidural needle may pierce the spinal meninges by accident, although this is rare, affecting one or two people in a hundred. If this happens, you may suffer from a special and severe kind of headache which gets worse if you stand or sit up, but which is relieved or disappears completely when you lie down. As well as headaches, you may sometimes suffer from blurred vision or impaired hearing. This kind of headache normally comes on 12-36 hours after you had the epidural anaesthesia. If the headache does not go away, even if you drink a lot of water and take pain relief tablets, we will normally treat you with a 'blood patch'. This involves having a small amount of your own blood injected into the epidural space to seal the hole in the spinal meninges. This normally relieves the headache quickly, but sometimes the treatment needs to be repeated. This treatment can only be given by an anaesthetist.

Drop in blood pressure

Although your blood pressure may drop, the risk is not very high if you have been given a low dose. However, if this does happen, a drip or medicine to raise your blood pressure will quickly make you feel better.

Fever

If you have epidural anaesthesia over a period of a few hours, you may suffer a slight fever; it is unclear why this happens.

What does the anaesthetic do?

When the anaesthetic starts to work, it will gradually reduce your labour pains. The contractions will be shorter and less painful. When the anaesthetic is at its full effect, you will still feel your contractions, but they will feel more like a squeeze or a slight pain. You may sometimes feel heat in the lower part of your body and your skin can feel slightly numb to the touch.

After the birth

Epidural/spinal anaesthesia does not increase the risk of back problems. However, you may feel local tenderness in your back and sometimes a bruise where the needle was injected. The bruise disappears and the tenderness passes by itself, often within a few days.



Good with pre-eclampsia, for example

If you are in a lot of pain, the stress hormones adrenaline and noradrenaline increase in your blood. Your blood pressure rises and the blood flow through your placenta is reduced. Epidural/spinal anaesthesia can often lower the level of these hormones in your blood, which has a positive effect on both your blood pressure and the blood flow through your placenta. This is particularly important if you suffer from pre-eclampsia, as your blood pressure is higher and the blood flow through your placenta is reduced.

It may also be a good idea to have epidural/spinal anaesthesia if you suffer from a serious heart or lung disease, as the anaesthesia reduces the stress on your body.

The same tube can also be used for emergency caesareans

If a tube has already been inserted for epidural anaesthesia, we can sometimes use the same tube if you need to have an emergency caesarean. This means that we do not have to give you general anaesthesia, which is particularly good if you suffer from pre-eclampsia or are severely overweight, when the risks from anaesthesia are higher.



You may also itch and find it difficult to urinate

Although severe complications are very rare, you may suffer minor side effects. Around half of everyone who has epidural/spinal anaesthetic containing a morphine-like substance suffers itching, but this itching is normally so mild that you do not need any special treatment.

Most women do not have any problems urinating, but it can be difficult for some. The midwife regularly checks your bladder during labour to make sure it does not get too full.

Some women feel heaviness in their legs or are slightly shaky

Approximately one out of ten women can feel heaviness in their legs or have problems standing or walking. This risk increases the more local anaesthetic you receive. This is harmless and the effect normally disappears within one or two hours.

A short time after you have had the spinal/epidural anaesthetic, you may start to shake slightly, like when you shiver. This is completely harmless and goes away by itself.

A plastic tube called an epidural catheter is inserted. Sometimes you may feel an uncomfortable tingling, shock-like sensation in your side, your hip or one of your legs if the tube touches a nerve root. This only lasts for a short while and is harmless.

The needle is then removed and the tube is attached securely onto your back with tape. The anaesthetist administers the first dose of local anaesthetic combined with a morphine-like substance. It takes 5-15 minutes to feel the effect of the pain relief. You will feel the full effect after 20-30 minutes. The epidural anaesthetic can be topped up afterwards using a pump as and when necessary. Your midwife checks your blood pressure a few times to make sure that you have not suffered from a drop in blood pressure.

Spinal anaesthesia

The technique used is similar to epidural anaesthesia, but it is slightly easier. Instead of a plastic tube, a thin needle is inserted through the spinal meninges and the anaesthetic is injected directly into the fluid in your spinal canal.

Spinal anaesthesia is primarily used if you have given birth before and you are coming to the end of a quick labour that is expected to finish within two hours. The effect of the pain relief is quicker and is normally better than epidural anaesthesia when you are pushing the baby out, but you may still feel a pressing sensation on your genital area and against your rectum. The disadvantage is that you will only feel the effect for a maximum of two hours, as you cannot top up the anaesthetic afterwards.



It is important to remain still when the needle is being inserted

The anaesthetist first washes your back with alcohol and injects a shallow local anaesthetic into your skin. This may smart or burn for a short while.

After this, the epidural needle is inserted between two vertebrae in your lumbar region. Although you might find it difficult to remain still when you are in labour, it is important to be completely still to make sure that we can insert the needle correctly into the epidural space. The epidural space is a small cavity just outside the spinal canal and the hard spinal meninges.

Labour can take longer

Sometimes the labour can take longer and your bearing-down reflex can be weakened if you are given epidural/spinal anaesthesia. Researchers still do not know how much this affects the bearing-down reflex, but it is probably not very much with the weak mixtures of drugs that are used nowadays. If your labour lasts for a long time, we can give you a drip with drugs to stimulate labour and if it is difficult to bear down, we can also use a suction cup to help get your baby out. Although it is more common to need a suction cup if you have had epidural/spinal anaesthesia, you are still much more likely to have a completely normal birth.

Epidural/spinal anaesthesia does not increase the risk of needing a caesarean section.



When should you not have epidural/spinal anaesthesia?

Epidural/spinal anaesthesia is not always suitable as a form of anaesthesia. It may be unsuitable, for example, if you:

- bleed more easily or longer than normal
- are on medication that affects the clotting ability of your blood
- have an infection in your skin where the needle will be injected
- have an infection in the blood, called sepsis
- have certain diseases that affect the nervous system
- have a disease that increases the pressure in the spinal fluid
- have certain kinds of spinal diseases or deformities of the spine

If you have a disease or are taking drugs that prevent us from administering epidural/spinal anaesthesia, it is a good idea for you to meet an anaesthetist to discuss your choice of pain relief method well in advance of the birth.

If you have a tattoo at the base of your spine, this is not normally a problem as the anaesthetist can normally insert the needle to the side of the tattoo.

The process

If you decide to have epidural/spinal anaesthesia after talking to your midwife or obstetrician, we call an anaesthetist for you. In Växjö there is an anaesthetist on site throughout the day and you rarely have to wait more than 30 minutes during the day or one hour in the evening and at night.

It does not normally take long to have epidural/spinal anaesthesia, but if you have previously had a back operation or a curved spine, scoliosis, it may take longer and the doctor might not be able to give you epidural/spinal anaesthesia.

Epidural anaesthesia

You can have epidural anaesthesia at any time during the birth, but we normally give it to you when labour has started and the cervix is open three to four centimetres. Pain relief normally works very well when the cervix is opening, but it can be less effective in the final phase when it is completely open.

Anaesthetic while you are on your side or slouched on the bed

To make the space between the vertebrae as large as possible, you can lie on your side in the foetal position with your knees drawn up and your chin against your chest. Or you can sit slouched on the edge of the bed with your back bent. If you are going to lie on your side when the epidural/spinal anaesthetic is given, you need to try to pull your knees up as far as you can and arch your back like a cat.