

Procedure

Epidural during delivery

This information on an epidural during delivery is also available in Dutch, French, Polish and Arabic.

There are various types of pain relief available during labour. One of these is the epidural, or epidural nerve block injection, in technical terms.

An epidural involves administering pain-relieving medication through a catheter in the space between your vertebrae. The nerves that transmit the pain impulses are temporarily switched off and the pain subsides. You will not feel pain from your navel, lower abdomen and pelvis to your legs.

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Monday to Friday from 08:30 to 12:00 and from 13:00 to 16:30.

What you can expect from the procedure

The following is all important information about the procedure.

The procedure

When will you receive an epidural?

The duration and severity of pain during labour may vary. In the first phase of labour, the dilation phase, the bottom of the uterus and the cervix stretch. You will mainly feel pain in your abdomen and back. Your baby will descend further into the pelvis minor as labour proceeds, and you will feel the pain lower.

If the delivery is more difficult than expected, if the dilation is not progressing satisfactorily or if you are experiencing too much pain, an epidural may provide relief. You can receive an epidural 24 hours a day, 7 days a week. If you discussed an epidural with your gynaecologist before you went into labour, that will be included in your medical file and birth plan. The gynaecologist and midwife on duty will be aware of this when you are admitted.

The epidural

Before you receive the epidural, an IV line will be inserted to administer extra fluid. This helps prevent your blood pressure from dropping, which is a common side effect of the epidural. The epidural will be given by an anaesthesiologist*. The anaesthesiologist usually performs the puncture while you are sitting in a stooped position. Stretching your back creates extra space between the vertebrae. The skin at the puncture site is disinfected, covered with sterile cloths and locally anaesthetised.

The anaesthesiologist inserts a needle into the epidural space. A catheter is inserted through the needle. The needle is removed, leaving the catheter in place. You may feel a tingling sensation or shock in your legs when the catheter is inserted. A pump is used to administer painkillers through the catheter; it takes a while before you feel the numbing effect of the anaesthetic. The anaesthetic may cause a loss of control and strength in your legs. Because of the anaesthetic, you also no longer feel if you have a full bladder. You will be given a bladder catheter to keep your bladder empty during labour. This is important, as a full bladder can weaken the contractions and prevent your baby from descending properly.

* The Jeroen Bosch Hospital is a training hospital and employs both anaesthesiologists and anaesthesiologists in training.

Monitoring

Both you and your baby will be closely monitored during labour with an epidural, to detect any complications and to ensure that the anaesthetic is sufficient. Your child will be continuously monitored with an electronic fetal monitor (ETG). Two pads will be attached to your tummy with bands. One pad registers your baby's heartbeat, while the other registers your contractions.

Your blood pressure will be measured regularly, and our team will check whether you are having enough contractions to be able to give birth. In some cases, contractions may slow slightly after the anaesthetic has been administered. If that happens, you will be given medication to make the contractions stronger again. This medicine is administered through the IV line.

The midwife or gynaecologist will perform regular internal examinations to assess the dilation progress. Once you are fully dilated and feel a strong urge to push, you may push.

Risks during labour

Side effects and complications can occur with any medical procedure. An epidural during labour may cause the following side effects and complications.

Drop in blood pressure

One of the most common side effects of the epidural is a sharp drop in blood pressure. To prevent this, your blood vessels are topped up with fluid through an IV before the anaesthetic is administered. A drop in blood pressure can be treated with medication. A drop in blood pressure may affect your baby, as it slows the blood supply to the placenta. This can be seen in your child's heartbeat.

High block

If the nerve block advances too high, the diaphragm and chest muscles are also anaesthetised. You may feel short of breath. This will be countered by administering oxygen. Your heart rate may also slow, which can be treated with medication.

Unilateral block

In some cases, the anaesthetic may only work on one side. This can happen if the anaesthetic spreads unevenly. In that case, the anaesthesiologist will discuss the options with you.

Fever

In some cases, your body temperature may rise because of the epidural. It is hard to determine the exact cause of the fever. It may be a response to the medication used in the epidural, or from an infection. You may be treated with medication, such as antibiotics. The paediatrician may need to examine the baby more closely and, in rare cases, you and the baby may need to be moved to the neonatal unit.

The anaesthesia will be stopped if you develop signs of infection—such as redness, pain, fluid secretion or fever—around the epidural site. You will receive medication to treat the infection. In rare cases, an abscess may develop at the puncture site; this will need to be surgically drained.

Headache

If the membrane around the spinal cord is punctured, you may develop a headache, either immediately or in the first few days after childbirth. Additional treatment with an epidural may be to try to treat the headache in the following days.

Bleeding and/or nerve damage

In rare cases, you may develop a haematoma near the spinal cord, which can press on the spinal cord, reducing sensation and strength in your legs. Notify the nursing staff immediately if you notice these symptoms. The nursing staff will also check for this complication regularly in the period after delivery. The problem can almost always be surgically resolved if it is detected in time. The needle used for the epidural can also cause direct damage to the nerve roots or the spinal cord. This is also an extremely rare complication.

Slowed contractions

The anaesthetic may slow your contractions. In that case, we will administer medication to strengthen the contractions.

Increased risk of assisted birth

The epidural reduces muscle control, which can cause labour to last longer. This increases the likelihood of an assisted birth with vacuum or forceps.

Insufficient anaesthesia in the case of a Caesarean section

During labour, there may be a reason to speed up the birth with a Caesarean section. In that case, the anaesthesiologist will administer pain relief through the tube in your back, which will sedate you enough for the operation. Sometimes, the anaesthetic does not have sufficient effect for surgery. In this case, a general anaesthetic is the only option. This is rare, however.

Are you overweight?

If you are overweight, puncturing the epidural space is more difficult. For this reason, arrangements for the epidural are sometimes made in advance for pregnant women who are overweight. In that case, the epidural will be administered as soon as it is clear that labour is about to begin, such as when contractions begin or the water has broken. This has an additional advantage: should it be necessary to perform a Caesarean section during labour, the necessary anaesthetic is already available.

After delivery

After delivery, the catheter will be removed. The IV line will also be removed if you have not suffered abnormal blood loss during delivery.

When you have regained sufficient sensation in your legs, you can wash up in the bathroom. If you still have no feeling in your legs, the nursing staff will help you wash up in bed. The bladder catheter will remain in place until you regain full sensation in your legs.

Questions

If you have any questions, please do not hesitate to discuss them with the midwife, gynaecologist or anaesthesiologist.