

## **Pain Relief in Labour**

This document will give you information about the forms of pain relief your midwife or doctor may offer, specifically TENS (transcutaneous electric nerve stimulation), pethidine or diamorphine, Entonox ('gas and air') and epidural anaesthetic.

There are simple ways women use to help them through labour, such as relaxation, massage and music. Having a bath, changing position or walking around during labour may make you more comfortable. There are also complementary therapies, such as aromatherapy, reflexology, acupuncture and massage.

You may decide to go through labour without any pain relief. However, most women choose to have some pain relief.

### **TENS**

This method uses a small electric current to change the way you feel pain. The current is delivered by a hand-held machine through electrodes attached by sticky pads to your back.

You can change the strength of the current. Some women say that it works well, particularly to ease backache in the early stages of labour.

There is no evidence that TENS has any effects on the baby. The only common problems are temporary patches of redness on your back where the pads are attached and not getting effective pain relief.

### **Pethidine or Diamorphine**

Pethidine or diamorphine are morphine-like drugs given by injection, usually into a muscle. Although some women find the drugs helpful, they do have side effects, including drowsiness, nausea and vomiting, and they can delay breastfeeding. They can also make the baby drowsy. If this happens, the baby can be treated with a drug called naloxone (or Narcan).

There is some evidence that these drugs make women less worried about their pain, but there is good evidence, particularly with pethidine, that they do not ease pain itself during labour.

## **Gas and Air**

Gas and air is the common name for a mixture of oxygen and a gas called nitrous oxide (a painkiller and weak anaesthetic). You breathe it through a mask or mouthpiece.

As it acts quickly but not straightaway, it is most effective if breathed in at the start of a contraction. This way, the pain-relieving effect happens by the time the contraction reaches its peak. To reduce the risk of feeling light-headed or sick, gas and air should not be breathed between contractions.

The amount of pain relief given by gas and air varies and it does not remove the pain of labour completely. Some women find it helpful, particularly in the early stages of labour.

Gas and air does not harm the baby. It gives the mother extra oxygen that may benefit both mother and baby. You can also use it at any time during labour.

Gas and air does have side effects, including light-headedness or dizziness, strange dreams (risk: 1 in 8), nausea (risk: 1 in 10) and falling asleep (risk: 1 in 250).

## **Epidural Pain Relief**

### **What is an epidural?**

Epidural pain relief involves injecting local anaesthetics and other painkillers into the epidural space (an area near your spinal cord). This numbs your nerves to give pain relief in certain areas of your body. An epidural can be used during labour to give relief from labour pains. It can also be used as an anaesthetic for a caesarean section.

An epidural will be given to you by an anaesthetist (doctor trained in anaesthesia). Your anaesthetist is usually assisted by a specially-trained healthcare practitioner.

Although the healthcare team may suggest that you have an epidural, it is your decision to go ahead with an epidural or not.

## How does an epidural work?

An epidural works by temporarily numbing your nerves to give pain relief. A fine catheter (small tube) is inserted into the epidural space in your back. Most of your nerves pass through this space. Drugs such as local anaesthetics and other painkilling drugs are injected down the catheter into the epidural space to numb your nerves.

The epidural can be maintained by giving extra doses when needed or by giving a continuous low dose (an infusion). Your anaesthetist will monitor you closely.

## How is an epidural given?

To insert the epidural catheter, your anaesthetist will ask you either to sit up or lie on your side. You will need to curl up and arch your back as much as possible as this makes it much easier for the anaesthetist to find the right position.



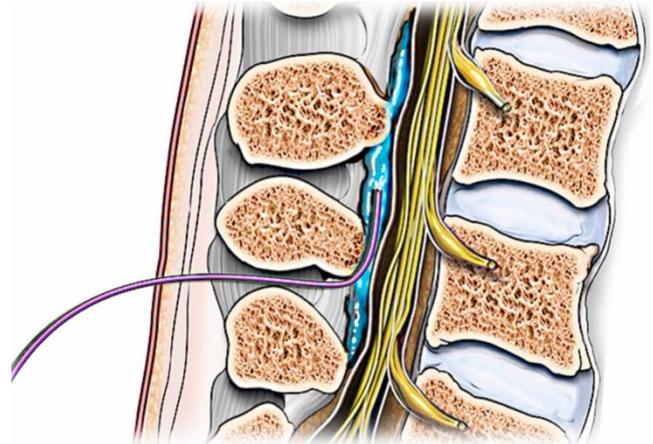
*An epidural being inserted*

Before inserting the epidural, your anaesthetist will place a cannula (small, hollow tube) into a vein in your hand or wrist. The healthcare team can give you drugs through the cannula to maintain your blood pressure if necessary.

Your anaesthetist will inject local anaesthetic into the area where they will insert the epidural catheter. This stings for a moment but will make the area numb, allowing your anaesthetist to put the catheter in with much less discomfort for you.

Your anaesthetist will insert the epidural catheter using a needle. They will pass the catheter through the needle. Once the catheter is in position, they will remove the needle and you will simply have the catheter in your back.

Your anaesthetist will then inject a small amount of drug through the catheter to check the position. Once they have completed this check, they will give more of the drug until the epidural is working properly.



*A catheter in the epidural space*

Sometimes when your anaesthetist is passing the catheter through the needle, you may get an electric shock-like feeling or tingle in your back or in one of your legs. If this happens, let your anaesthetist know. The feeling should go away fairly quickly. It does not mean anything is wrong.

You can help the anaesthetist by keeping still while they insert the epidural catheter. It should not be painful, although it can be uncomfortable. If you feel pain, you should let your anaesthetist know.

## What effect does an epidural have?

The effect of the epidural can be varied by changing the type and amount of drug given. The more anaesthetic drug you are given, the more numb you will be. An epidural has three main effects:

- **Pain relief** – The epidural numbs the sensory nerves responsible for pain and touch. This provides pain relief but also can make the area feel numb or heavy. Pain nerves are easier to block than touch nerves. This means that, although you may be aware of your contractions, they should not hurt. Sensory nerves are more easily affected than movement nerves, so sometimes you can be numb but still able to move your legs. It can take up to 30 minutes for the epidural to work.
- **Weakness** – The nerves supplying muscles may also be affected. This can make it difficult for you to move your legs and get out of bed. It may also make it difficult for you to pass urine properly.

- **Low blood pressure** – The nerves that help to control blood pressure are the most easily affected. You may not be aware of this happening, but your anaesthetist will be monitoring you closely for any problems with low blood pressure.

### What are the benefits of an epidural?

An epidural gives the most reliable pain relief for labour. It takes away much of the stress, which is good for the baby.

An epidural usually does not cause drowsiness or nausea and may even help in breast-feeding.

### What complications can happen?

Your anaesthetist will try to make your anaesthesia as safe as possible. However, complications can happen.

Some of these can be serious and can even cause death (risk: 1 in 150,000). The possible complications of an epidural anaesthetic are listed below. Any numbers which relate to risk are from studies of people who have had an epidural anaesthetic. Your anaesthetist may be able to tell you if the risk of a complication is higher or lower for you.

- **Longer second stage of labour and less of an urge to push.** A forceps delivery is therefore more common, although you will probably still have a normal delivery. Having an epidural does not increase the risk of needing a Caesarean section.

- **Drop in the baby's heart rate** occasionally happens shortly after the catheter is inserted. Although this usually improves, your midwife will closely monitor your baby.

- **Failure of the epidural** (risk: 1 in 20). About 9 out of 10 epidurals work well first time. Of those that do not, about half are adjusted and then work well. If the epidural is not working well enough, your anaesthetist and your midwife will discuss the options with you. An option may be to remove the epidural and insert another one.

- **Low blood pressure** (risk: 1 in 25). The risk depends on your medical condition and the drugs that are used. It is easily treated and you will be closely monitored by your anaesthetist and midwife.

- **Shivering** soon after the catheter is inserted. This usually settles but can be treated by reducing the drugs given.

- **Headache**, which is quite common both during and after labour.

However, there is a particular type of headache that can happen if the bag of fluid around the spinal cord is punctured (risk: 1 in 100). This headache can vary from mild to severe and can be treated if needed.

- **Itching**, if morphine or similar drugs are given. The effect is usually mild, although it can be more severe. Certain drugs can be used to treat the itching or the epidural drugs can be changed. The itching always goes away, usually after one to two days.

- **Difficulty passing urine** because the nerves to the bladder are numbed. A catheter (tube) is often passed into your bladder to drain the urine. This will be taken out when you no longer need it.

- **Temporary Leg weakness** is common and can vary from being almost unnoticeable to not being able to move your legs at all. This always goes away. If leg weakness is causing a problem, the epidural can sometimes be adjusted to make your legs more mobile. You may need someone to stay with you and help you for a few hours after the epidural.

- **Backache**, which is common after an epidural. It is common to have a bruised feeling for a few days where the epidural was inserted. There is no evidence that having a straightforward epidural causes long-term backache and epidurals are commonly used to treat people with long-standing back pain.

- **Increase in temperature** (risk: 1 in 6). This is not caused by infection and settles quickly. It may be associated with a slightly less alert baby immediately after delivery, but this is temporary.

- **Cardiovascular collapse** (where the heart stops). This is rare.

- **Short-term nerve injury**, which recovers fully (risk: 1 in 7,000). 1 in 2,000 women will experience sensations such as tingling in one leg after giving birth. This is usually due to birth itself.

- **Unexpected high block**, if the local anaesthetic spreads beyond the intended area (risk: 1 in 18,000). This can make breathing difficult, cause low blood pressure and, rarely, cause unconsciousness. You may be transferred to the high dependency unit or intensive care unit so you can be monitored closely.

- **Infection around the spine**  
(risk: 1 in 145,000)

- **Blood clot around the spine**  
(risk: 1 in 150,000)

- **Nerve injury** lasting more than three months (risk: 1 in 240,000). This can be caused by infection, bleeding near the spinal cord or injury to the spinal cord.

You should ask your anaesthetist if there is anything you do not understand.

A complication may happen after the epidural has been removed. If you experience any of the following problems, you or your doctor should contact the hospital straightaway.

- Pus, redness, tenderness or pain where the epidural was inserted
- High temperature
- Feeling unwell, even after recovering from the labour itself
- Discomfort when in a bright room or sunlight (photophobia)
- Neck stiffness
- Difficulty moving or feeling your legs
- Difficulty passing urine
- Bowel incontinence

## Summary

There are many different ways of controlling pain in labour, most with varying levels of success.

An epidural provides the best pain relief. However, complications can happen. You need to know about them to help you decide which is the best form of pain relief for you. Knowing about them will also help to detect and treat any problems early.

**Keep this information leaflet. Use it to help you if you need to talk to a healthcare professional.**

## Acknowledgements

Author: Dr Iain Moppett DM MRCP FRCA and Dr Amelia Banks MRCP FRCA

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