# Epidurals for pain relief after surgery

**This leaflet is for anyone who may benefit from an epidural for pain relief after surgery. We hope it will help you to ask questions and direct you to sources of further information.**

This booklet explains what to expect when you have an epidural catheter placed for pain relief after your operation. It has been written by patients, patient representatives and anaesthetists, working in partnership.

You can find more information in other leaflets in the series on the website **www.rcoa.ac.uk/patientinfo**. They may also be available from the anaesthetic department in your hospital.

The series also includes the following:

- Anaesthesia explained (a more detailed booklet)
- You and your anaesthetic (a shorter summary)
- Your child's general anaesthetic
- Your spinal anaesthetic
- Headache after an epidural or spinal anaesthetic
- Your child's general anaesthetic for dental treatment
- Local anaesthesia for your eye operation
- Your tonsillectomy as day surgery
- Your anaesthetic for aortic surgery
- Anaesthetic choices for hip or knee replacement

**Risks associated with your anaesthetic**

A collection of 14 articles about specific risks associated with having an anaesthetic has been developed to supplement the patient information leaflets. The risk articles are available on the website **www.rcoa.ac.uk/patientinfo.**

Throughout this booklet we use these symbols:


To highlight your options or choices


To highlight where you may want to take action


To point you to more information

# Introduction

This leaflet describes what happens when you have an epidural, together with any side effects and complications that can occur. It aims to help you and your anaesthetist make a choice about the best method of pain relief for you after your surgery.

## What is an epidural?

The nerves from your spine to your lower body pass through an area in your back close to your spine, called the 'epidural space'.

- To establish an epidural an anaesthetist injects local anaesthetic through a fine plastic tube (an epidural catheter) into the epidural space. As a result, the nerve messages are blocked. This causes numbness, which varies in extent according to the amount of local anaesthetic injected.
- An epidural pump allows local anaesthetic to be given continuously through the epidural catheter.
- Other pain relieving drugs can also be added in small quantities.
- The amounts of drugs given are carefully controlled.
- You may be able to press a button to give a small extra dose from the pump. Your anaesthetist will set the pump to limit the dose which you can give, so overdose is extremely rare.
- When the epidural is stopped, full feeling will return.
- Epidurals may be used during and/or after surgery for pain relief.

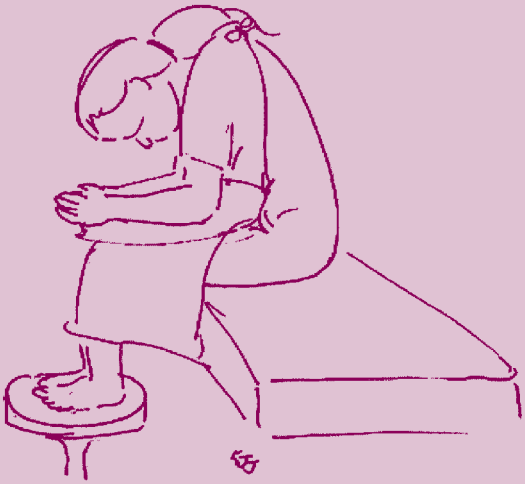
## How is an epidural done?

Epidurals can be put in:

- when you are conscious
- when you are under sedation (when you have been given a drug which will make you drowsy and relaxed, but still conscious)
- or during a general anaesthetic.

These choices can be discussed further with your anaesthetist.

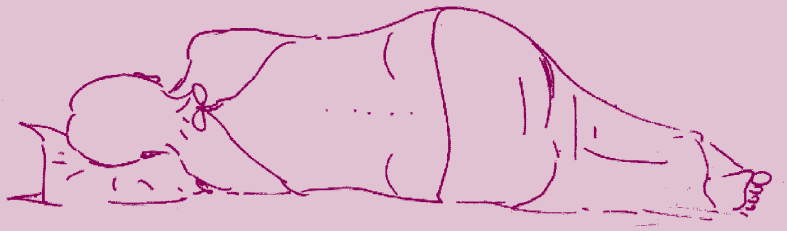
1 A needle will be used to put a thin plastic tube (a 'cannula') into a vein in your hand or arm for giving fluids (a 'drip').



2 If you are conscious, you will be asked to sit up or lie on your side, bending forwards to curve your back. It is important to keep still while the epidural is put in.

3 Local anaesthetic is injected into a small area of the skin of your back.

4 A special epidural needle is pushed through this numb area and a thin plastic catheter is passed through the needle into your epidural space. The needle is then removed, leaving only the catheter in your back.



# Your epidural

## What will I feel?

- The local anaesthetic stings briefly, but usually allows an almost painless procedure.
- It is common to feel slight discomfort in your back as the catheter is inserted.
- Occasionally, an electric shock-like sensation or pain occurs during needle or catheter insertion. If this happens, you must tell your anaesthetist immediately.
- A sensation of warmth and numbness gradually develops, like the sensation after a dental anaesthetic injection. You may still be able to feel touch, pressure and movement.
- Your legs feel heavy and become increasingly difficult to move.
- You may only notice these effects for the first time when you recover consciousness after the operation, particularly if your epidural was put in when you were anaesthetised.
- Overall, most people do not find these sensations to be unpleasant, just a bit strange.
- The degree of numbness and weakness gradually decreases over the first day after the operation.

## What are the benefits?

- If your epidural is working properly, you will have better pain relief than other methods, particularly when you move.
- There may be reduced complications of major surgery, e.g. nausea/vomiting, leg/lung blood clots, chest infections, blood transfusions, delayed bowel function.
- There may be quicker return to eating, drinking and full movement, possibly with a shorter stay in hospital compared to other methods of pain relief.

## How do the nurses look after me on the ward with an epidural?

- At regular intervals, the nurses will take your pulse and blood pressure and ask you about your pain and how you are feeling.
- They may adjust the epidural pump and treat side effects.
- They will check that the pump is functioning correctly. They will encourage you to move, eat and drink, according to the surgeon's instructions.
- The Pain Relief Team doctors and nurses may also visit you, to check your epidural is working properly.

## When will the epidural be stopped?

- The epidural will be stopped when you no longer require it for pain relief.
- The amount of pain relieving drug being given by the epidural pump will be gradually reduced.

- A few hours after the pump is stopped, the epidural catheter will be removed, as long as you are still comfortable.
- The epidural catheter will be removed if it is not working properly. It may be possible to insert another epidural catheter if necessary.

## Can anyone have an epidural?

No. An epidural may not always be possible if the risk of complications is too high.

The anaesthetist will ask you if:

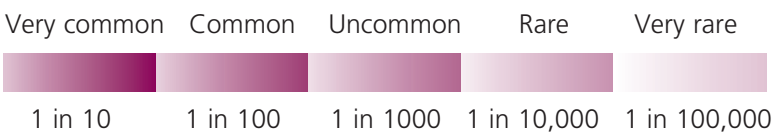
- you are taking blood thinning drugs, such as warfarin
- you have a blood clotting abnormality
- you have an allergy to local anaesthetics
- you have severe arthritis or deformity of the spine
- you have an infection in your back.

# Side effects and complications

- All the side effects and complications described can occur without an epidural.
- Side effects are secondary effects of a treatment. They occur commonly and may be unavoidable. Although they may be unpleasant (for example, feeling sick), they are not usually dangerous. Complications are unwanted and unexpected events that are known to occur occasionally due to a treatment. Serious complications are rare or very rare.
- Permanent nerve damage is a very rare serious complication of having an epidural. It can also happen if you do not have an epidural. You can read more about this in the risk articles on **www.rcoa.ac.uk/patientinfo**.
- The risk of complications should be balanced against the benefits and compared with alternative methods of pain relief. Your anaesthetist can help you do this.

**People vary in how they interpret words and numbers.**

This scale is provided to help.



## Very common or common side effects and complications

**Inability to pass urine.** The epidural affects the nerves that supply the bladder, so a catheter (tube) will usually be inserted to drain the urine away. A catheter is often necessary after major surgery even if you do not have an epidural, to keep a close check on the rate of urine production. If you have a working epidural, you cannot feel the catheter, which will normally be left in for a few days. Bladder function returns to normal after the epidural wears off.

**Low blood pressure.** The local anaesthetic affects the nerves going to your blood vessels, so blood pressure always drops a little. Fluids and/or drugs can be put into your drip to treat this. Low blood pressure is common after surgery, even without an epidural.

**Itching.** This can occur as a side effect of pain-relieving drugs that may be mixed with the local anaesthetic in your epidural. It can be treated with anti-allergy drugs.

**Feeling sick** and **vomiting.** These can be treated with anti-sickness drugs. These problems are less frequent with an epidural than with most other methods of pain relief.

**Backache.** This is common after surgery whether you have an epidural or not. It is not related to having an epidural. It may be caused by lying on a firm flat operating table.

**Inadequate pain relief.** It may be impossible to place the epidural catheter, the local anaesthetic may not spread adequately to cover the whole surgical area, or the catheter can fall out. Epidurals can provide better pain relief than other techniques. Other methods of pain relief are available if your epidural fails.

**Headaches.** Minor headaches are common after surgery, with or without an epidural.

Occasionally a severe headache occurs after an epidural because the lining of the fluid filled space surrounding the spinal cord has been inadvertently punctured (a 'dural tap'). The fluid leaks out and causes low pressure in the brain, particularly when you sit up. If this happens, it may be necessary to inject a small amount of your own blood into your epidural space. This is called an 'epidural blood patch'. The blood clots and plugs the hole in the epidural lining. This will cure the headache in the majority of cases. For more information please see 'Headache after an epidural or spinal anaesthetic'.

## Uncommon complications

**Slow breathing.** Some drugs used in the epidural can cause slow breathing and/or drowsiness requiring treatment.

**Catheter infection.** The epidural catheter can become infected and may have to be removed. Antibiotics may be necessary. It is very rare for the infection to spread any further than the insertion site in the skin.

## Rare or very rare complications

Other complications, such as convulsions (fits), breathing difficulty and damage to nerves are rare. Permanent disabling nerve damage, epidural abscess (infection), epidural haematoma (blood clot) and cardiac arrest (stopping of the heart) are very rare indeed.

In comparison, you are more likely to die from an accident on the roads or in your own home every year than suffer permanent damage from an epidural. Detailed information about these risks is available from **www.rcoa.ac.uk/patientinfo** under the section 'Risks associated with having an anaesthetic'. These risks can be discussed further with your anaesthetist who can take into account your personal circumstances.

# Frequently asked questions

## What if I decide not to have an epidural?

It is your choice. You do not have to have an epidural.

- There are several alternative methods of pain relief with morphine that work well. This includes injections given by the nurses or you may be offered a machine which allows you to control your pain relief yourself (Patient Controlled Analgesia, or 'PCA').
- There are other ways in which local anaesthetics can be given.
- You may be able to take pain relieving drugs by mouth.
- Every effort will always be made to ensure your comfort.

## How do I ask further questions?

- Ask the nursing staff or your anaesthetist.
- Most hospitals have a team of nurses and anaesthetists who specialise in pain relief after surgery. You can ask to see a member of the pain team at any time. They may have leaflets available about pain relief. There is also more information about epidurals on the website: **www.rcoa.ac.uk/patientinfo**.

# Useful organisations

## The Royal College of Anaesthetists

Churchill House
35 Red Lion Square
London WC1R 4SG
Tel: 020 7092 1500

website: www.rcoa.ac.uk
E-mail: info@rcoa.ac.uk
Fax: 020 7092 1730

This organisation is responsible for standards in anaesthesia, critical care and pain management throughout the UK.

## The Association of Anaesthetists of Great Britain and Ireland

21 Portland Place
London WC1B 1PY
Tel: 020 7631 1650

website: www.aagbi.org
E-mail: info@aagbi.org
Fax: 020 7631 4352

This organisation works to promote the development of anaesthesia and the welfare of anaesthetists and their patients in Great Britain and Ireland.

## Useful organisations

**Questions you may like to ask your anaesthetist**

**Q Who will give my anaesthetic?**

**Q Do I have to have this type of pain relief?**

**Q Have you often used this type of pain relief?**

**Q What are the risks of this type of pain relief?**

**Q Do I have any special risks?**

**Q How will I feel afterwards?**

## Tell us what you think

We welcome suggestions to improve this booklet.
You should send these to:

The Patient Information Unit
Churchill House
35 Red Lion Square
London WC1B 4SG
email: standards@rcoa.ac.uk

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This leaflet will be reviewed within five years of the date of publication

The Royal College of Anaesthetists

The Association of Anaesthetists of Great Britain and Ireland