Royal College of Anaesthetists

Association of Anaesthetists

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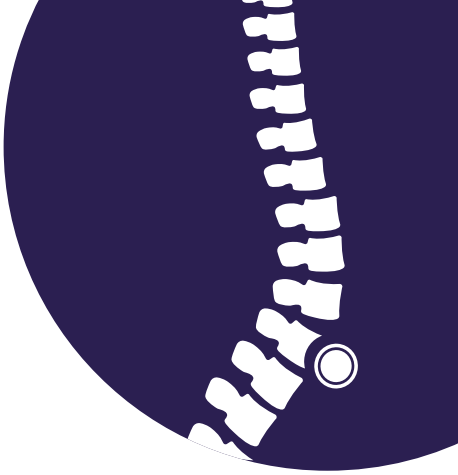


Epidural pain relief after surgery

This leaflet explains what to expect if you choose to have an epidural for pain relief during and after your operation. It has been written by anaesthetists, patients and patient representatives, working together.

What is an epidural?

An epidural is a fine, flexible tube placed in the back near the nerves coming from the spinal cord, through which pain-killing drugs can be given to give pain relief.

It is used during surgery (usually in addition to a general anaesthetic), after the operation for pain control, or both.

Local anaesthetic, and sometimes other pain-relieving drugs, are put through the epidural catheter. This lies close to the nerves in your back. As a result, the nerve messages are blocked. This gives you pain relief, which varies in extent according to the amount and type of drug given. The local anaesthetic may cause some numbness and weakness as well as pain relief.

An epidural pump is used to give pain-relieving drugs continuously through the epidural catheter. Some epidural pumps also have a push button for you to press to deliver your own pain relief. These pumps have safety limits programmed in to reduce the chance of you giving yourself too much drug.

The pain relief lasts as long as the pump is running. When it is stopped, full feeling will return within a few hours.

What are the benefits of an epidural?

If your epidural is working well, after your surgery you will have better pain relief than with other methods, particularly when you take a deep breath, cough or move about in the bed.

You should need less alternative strong pain relief medicine. This means your breathing will be better, there should be less nausea and vomiting, and you are likely to be more alert.

There is some evidence that other complications of surgery may be reduced, including reduced risk of blood clots in the legs or lung and chest infection. There is also some evidence that you may lose less blood with an epidural, which would reduce your chance of needing a blood transfusion.

What if I don't have an epidural?

It is your choice. Your anaesthetist will tell you if they particularly recommend an epidural, and what alternatives there may be.

Other pain relief methods use morphine or similar drugs. These are strong pain relief medicines but can have side effects that include nausea and constipation. Some people become confused when using morphine.

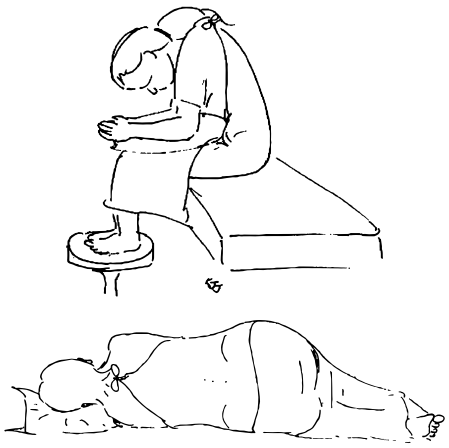
Alternatively, there may be other ways that local anaesthetic can be given – for example, a nerve block.

Can anyone have an epidural?

No. An epidural is not possible for some people. Your anaesthetist will discuss this with you if necessary. An epidural may not be possible for you if:

- you take blood-thinning drugs, such as warfarin
- your blood does not clot properly
- you are allergic to local anaesthetic
- you have significant deformity of the spine
- you have an infection in your back
- you have had previous surgery on the spine with metalwork in your back
- you have had problems with a spinal anaesthetic or epidural in the past.

How is an epidural done?



Epidurals can be put in:

- when you are fully awake
- with sedation (drugs that make you sleepy and relaxed).

Your anaesthetist will talk to you about which might be best for you. The steps for having an epidural are:

1 a cannula (drip) is placed in a vein in your arm for giving fluid
2 you will be asked to sit up or lie on your side. You will be helped to bend forwards, curving your back as much as you can – see above
3 the anaesthetist will clean your back with antiseptic
4 a small injection of local anaesthetic is given to numb the skin
5 a needle is used to place a thin plastic catheter (tube) into the epidural space in your back. The needle is removed, leaving only the catheter in your back.

How will this feel?

The local anaesthetic injection in the skin will sting briefly. There will then be the feeling of pushing, but usually no more than discomfort as the needle and catheter is inserted.

Occasionally, a sharp feeling, like an electric shock, is felt. If this happens, it will be obvious to your anaesthetist. They may ask you where you felt it.

A sensation of warmth and numbness gradually develops after the local anaesthetic is given. For some types of epidural, your legs may feel heavy and become difficult to move.

Overall, most people do not find these sensations to be unpleasant, just a bit strange. Feeling and movement will return to normal when the epidural is stopped.

Understanding risk

The risk of complications should be balanced against the benefits and compared with alternative methods of pain relief. Your anaesthetist can give you more information and help you understand the relative risks.

People vary in how they interpret words and numbers. This scale is provided to help.

Very common side effects

Low blood pressure

It is normal for the blood pressure to fall a little when you have an epidural. Your anaesthetist will use fluids and drugs to correct it.

Inability to pass urine

The nerves to the bladder are affected by the epidural. A catheter (tube) is inserted into the bladder to drain away the urine. This is often needed after major surgery with or without an epidural.

Itching

This is a side effect of the pain relief drugs that are sometimes used in an epidural. Anti-histamine drugs may help, or the drug in the epidural can be changed.

Feeling sick

This is less common with an epidural than with other pain relief methods. It may be helped by anti-sickness medicines.

Inadequate pain relief

The epidural may not relieve all your pain. Your anaesthetist or the pain relief nurses looking after you will decide if it can be improved or if you need to switch to another pain relief method.

Common side effects

Headache

Headaches are quite common after surgery. It is possible to get a more severe, persistent headache after having an epidural. This happens on average about once in every hundred epidurals. It happens if the needle used to place the epidural or the epidural catheter unintentionally puncture the bag of fluid that bathes the spinal cord. A small amount of fluid leaks out, causing a headache. It can cause a severe headache that is worse if you sit up and is relieved by lying flat. The headache sometimes will go away on its own with good hydration and pain relief. The staff looking after you should alert the anaesthetic team as this will need to be reviewed by them before you are discharged. If the headache is severe or remains, you may need specific treatment for the headache. The headache may be accompanied by loss of hearing or muffling or distortion of hearing.

For more information, please read our leaflet *Headache after a spinal or epidural injection* which can be found on our website: rcoa.ac.uk/patientinfo/risks/risk-leaflets

Uncommon side effects and complications

Slow breathing

Some drugs used in the epidural can cause slow breathing or drowsiness, which requires treatment.

Nerve damage: temporary

Uncommonly, the needle or epidural catheter can damage nerves. This can give loss of feeling or movement in a large or small area of the lower body. In most people this gets better after a few days, weeks or months.

Rare or very rare complications

Nerve damage: permanent

Permanent nerve damage by the needle or the catheter is rare:

- permanent harm occurs in 1 in 23,500 to 50,500 spinal or epidural injections
- paraplegia or death occurs in 1 in 54,500 to 1 in 141,500 spinal or epidural injections.

You can find more information about this from our leaflet *Nerve damage associated with a spinal or epidural injection* which is available on our website: rcoa.ac.uk/patientinfo/risks/risk-leaflets

Catheter infection

An infection can occasionally develop around the epidural catheter. If this happens, it will be removed. It is rare for the infection to spread deeper than the skin. Antibiotics may be necessary or, rarely, emergency back surgery. Disabling nerve damage due to an epidural abscess is very rare.

Other complications

Convulsions (fits), severe breathing difficulty, permanent paraplegia (loss of use of one or more limbs) or death are very rare.

Questions you may like to ask your anaesthetist

- Why are you recommending an epidural for me?
- What are the advantages and disadvantages of an epidural for me?
- What about the alternatives?
- Who will do my epidural?
- Do I have any special risks?
- How will I feel afterwards?
- How will I feel afterwards if I don't have an epidural?

Disclaimer

We try very hard to keep the information in this leaflet accurate and up-to-date, but we cannot guarantee this. We don't expect this general information to cover all the questions you might have or to deal with everything that might be important to you. You should discuss your choices and any worries you have with your medical team, using this leaflet as a guide. This leaflet on its own should not be treated as advice. It cannot be used for any commercial or business purpose.

For full details, please see our website: rcoa.ac.uk/patientinfo/resources#disclaimer

Information for anaesthetic departments on printing this leaflet

Please consider the visual impairments of patients when printing or photocopying this leaflet. Photocopies of photocopies are discouraged as these tend to be low quality prints and can be very difficult for patients to read. Please also make sure that you use the latest version of this leaflet, which is available on the RCoA website: rcoa.ac.uk/patientinfo/leaflets-video-resources

Tell us what you think

We welcome suggestions to improve this leaflet. Please complete this short survey at: surveymonkey.co.uk/r/testmain. Or by scanning this QR code with your mobile:

If you have any general comments, please email them to: patientinformation@rcoa.ac.uk

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This leaflet will be reviewed within three years of the date of publication.