Royal Berkshire NHS
NHS Foundation Trust

Information for patients

Epidurals and spinals: information about their operation for anyone who may benefit from an epidural or spinal

This leaflet has been made using information from the Royal College of Anaesthetists information booklets, which were written by patients, patient representatives and anaesthetists, working together.

What are epidurals and spinals?

The nerves from your spine to your lower body pass through an area in your back close to your spine. Anaesthetists sometimes numb the nerves in this area by doing either a “spinal” or “epidural”.

What is the difference between an epidural and a spinal anaesthetic?

A spinal is a single injection with a thin needle that puts the local anaesthetic close to the nerves, within the fluid that surrounds the spinal cord. The numbing effect lasts for about 1½ to 4 hours.

With an epidural, a fine plastic tube (an epidural catheter) is threaded through a needle and the tube is left in the epidural space in the back. Local anaesthetic is injected down the tube to cause numbness, which varies in extent according to the amount of local anaesthetic injected. Local anaesthetic and other pain relieving drugs may be given to prolong the effect of the numbness for more than 3-5 hours. An epidural usually stays in place for 2-3 days.

When is a spinal anaesthetic used?

A spinal anaesthetic may be used as an alternative to a general anaesthetic for some operations below the waist. Depending on the type of operation and your own medical condition, a spinal anaesthetic may sometimes be safer for you and suit you better than a general anaesthetic.

In addition, spinals can be used to give pain relief for after the operation. Injecting morphine and other painkillers into the spinal fluid directly means lower doses of medicine can be used and they last longer. If the spinal is being used for pain relief after the operation, you will have a general anaesthetic as well.

Operations a spinal is commonly/often used for:

- Orthopaedic surgery – any major operation on leg bones or joints.

- General surgery – hernia repair, varicose veins, piles (haemorrhoids), or as pain relief for major surgery such as a bowel resection.
- Vascular surgery – repairs to blood vessels of the legs.
- Gynaecology – vaginal repairs, hysterectomies or operations on the bladder outlet.
- Urology – prostate removal, bladder operations and genital surgery.

Will I be awake if I have a spinal anaesthetic?

You can normally choose:

- To remain fully conscious.
- To have some sedation during your operation. This makes you relaxed and drowsy though you may remain conscious.
- Or, occasionally, a spinal anaesthetic may be combined with a general anaesthetic.

You would definitely have a full general anaesthetic if your anaesthetist is unable to perform the spinal, or it does not work satisfactorily or if the surgery is more complicated than expected.

Will I feel anything during the operation?

Your anaesthetist will not permit surgery to begin until you are both convinced that the spinal is working properly. You should not feel any pain during the operation but you may be aware of other sensations, such as movement or pressure, as the surgical team carry out their work.

Should I tell the anaesthetist anything during the operation?

Yes, your anaesthetist will want to know about any sensations or other feelings you experience during the operation. They will make adjustments to your care throughout the operation and be able to explain things to you.

When is an epidural anaesthetic used?

An epidural is used when either the operation is expected to take longer than 3 hours or if it is needed to provide you with pain relief for many hours to days after your operation.

Although an epidural provides numbness during the operation it is usually combined with a full general anaesthetic.

Sometimes epidurals and spinals are done together: this is called a “combined spinal and epidural”.

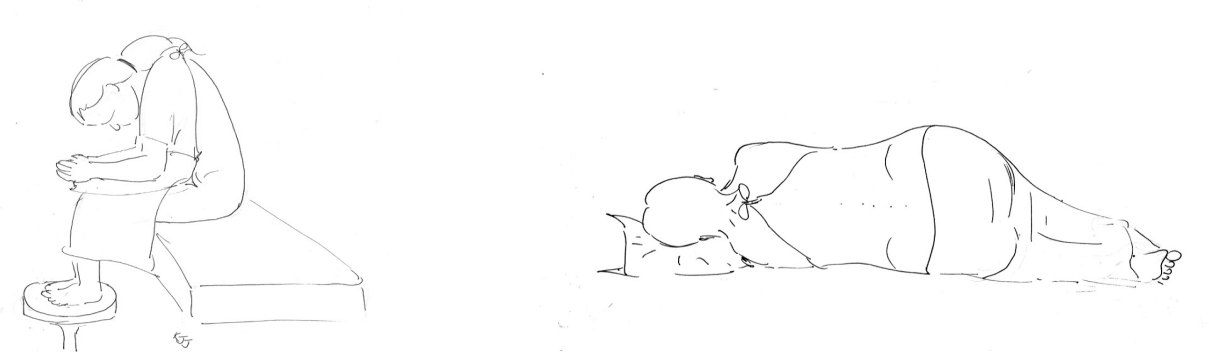
How is an epidural or spinal done?

Epidurals and spinals are usually put in when you are conscious. Sometimes sedation can be used.

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. You will either sit on the side of the bed with your feet on a low stool or lie on your side, curled up with your knees tucked up towards your chest.
3. Local anaesthetic is injected into a small area of the skin of your back.
4. A special needle is pushed through this numb area.

- If you are having a spinal then local anaesthetic is injected through the needle and the needle removed.
- If you are having an epidural, 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.



What will I feel while the epidural or spinal is being done?

Usually having a spinal or an epidural should not be too uncomfortable or take more than a few minutes to perform.

- The local anaesthetic stings briefly, but usually allows an almost painless procedure.
- It is common to feel slight discomfort or ache in your back as the needle or catheter is inserted.
- Occasionally, an electric shock-like sensation or pain occurs during needle or catheter insertion. If this happens, try to stay still and 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. This is a good sign as it means the local anaesthetic is working well. With spinals this occurs within 5-10 minutes. With epidurals this effect takes longer.
- You may only notice these effects for the first time when you recover consciousness after the operation if you are having sedation or a general anaesthetic as well as the spinal or epidural.
- If you are staying awake or having sedation you will probably be given extra oxygen to breathe through a lightweight clear plastic mask. This is to improve oxygen levels in your blood.
- Overall, most people do not find these sensations to be unpleasant, just a bit strange.
- The degree of numbness and weakness gradually decreases when the local anaesthetic wears off.

Advantages of an epidural or spinal:

There may be:

- Less risk of chest infections after surgery.
- Less effect on the heart and lungs.
- Less chance of getting a blood clot in your leg after surgery.
- Excellent pain relief immediately after surgery.
- Less need for strong pain-relieving drugs.
- Less sickness and vomiting.
- Earlier return to drinking and eating after surgery.
- Less confusion in older people after the operation.

Care after an operation with a spinal:

- Your nurses will make sure that the numb area is protected from pressure and injury until sensation returns.
- It takes 1.5 – 4 hours for feeling to return to the area of your body that is numb. You should tell the staff about any concerns or worries you may have.
- As sensation returns, you may experience some tingling in the skin as the spinal wears off. At this point you may become aware of some pain from the operation site and you should ask for more pain relief before the pain becomes too severe.
- As the spinal wears off, please ask for help when you first get out of bed.
- You can normally drink fluids fairly soon after the operation and may also be able to eat a light diet. The nurses will advise you when it is safe to do so.

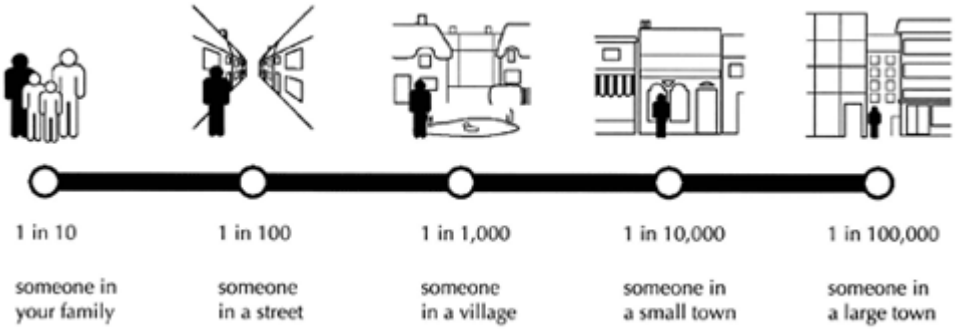
Care when an epidural catheter has been left in place for pain relief.

- 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 check and adjust the epidural pump and treat side effects.
- You must not try to get out of bed without help until the epidural has fully worn off. The nurses will advise you.

Side effects and complications of epidurals and spinals

- 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.
- 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.

The following diagram may help you decide how you feel about a risk:



Very common or common side effects and complications

- Inability to pass urine. The epidural or spinal affects the nerves that supply the bladder, so a catheter (tube) may be inserted to drain the urine away. Bladder function returns to normal after the epidural wears off. Problems passing urine may occur after operations whether you do or do not have an epidural or spinal.
- Low blood pressure. The local anaesthetic affects the nerves going to your blood vessels, so blood pressure always drops a little.
- Itching. This can occur as a side effect of pain-relieving drugs that may be mixed with the local anaesthetic in your epidural or spinal.
- Feeling sick and vomiting. These can be treated with anti-sickness drugs. These problems are less frequent with an epidural or spinal than with most other methods of pain relief.
- Backache. This is common after surgery whether you have an epidural or spinal 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 or spinal, the local anaesthetic may not spread adequately to cover the whole surgical area, or the catheter can fall out with an epidurals. Other methods of pain relief are available if your epidural or spinal fails.
- Headaches. Minor headaches are common after surgery, with or without an epidural. Occasionally a severe headache occurs after an epidural or spinal 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.

Uncommon complications

- Slow breathing. Some drugs used in the epidural or spinal can cause slow breathing and/or drowsiness requiring treatment.
- Catheter infection. An 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 or spinal. These risks can be discussed further with your anaesthetist.

Not everyone is able to have a spinal or epidural as occasionally the risks of complications are too high. For example, some people still taking blood thinning medication may not be able to have an epidural / spinal if the medicine has not been stopped in time. Your anaesthetist will discuss this with you.

Although spinals and epidurals may be a very good anaesthetic for your operation and provide better pain relief after your surgery, it is not compulsory. This information is to help you make an informed choice. There are good alternative methods.

You will be seen by the anaesthetist before your operation when you will be given the chance to ask any questions. Together you and the anaesthetist will decide the best anaesthetic for you for your operation.

The information in this leaflet can also be made available in other languages and in large print upon request. Please contact the Patient Relations Team on 0118 322 8338, or email talktous@royalberkshire.nhs.uk

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