

Epidural and spinal anaesthesia

Adult (18 years and over) | Patient information

A copy of this form should be given to the patient/substitute decision-maker to read carefully and allow time to ask any questions about the anaesthetic. The patient information sheet should be included in the patient's medical record.



1. What is epidural and spinal anaesthesia and how will it help me/the patient?

For some operations on the lower half of the body, local anaesthetic medicine is injected through a needle and/or thin plastic tubing into the middle of your lower back. This can numb the nerves supplying the lower part/half of your body for one to four hours and sometimes longer. During this time it will be difficult or impossible to move your legs as normal. Other medicine may be injected at the same time that prolongs pain relief for many hours. The medicine works by blocking the pain signals from reaching your brain.

Depending on your medical condition and the operation you are having, an epidural and/or spinal anaesthetic may be safer or more comfortable for you than having a general anaesthetic.

Epidural and spinal anaesthetics are similar but different types of anaesthetic and sometimes both are given together. Epidural and spinal anaesthetics are also a type of 'regional anaesthetic' or 'regional nerve block'.

During your epidural and/or spinal anaesthetic you may be fully awake, sedated or also be given a general anaesthetic. Your anaesthetist will discuss this with you before the operation.

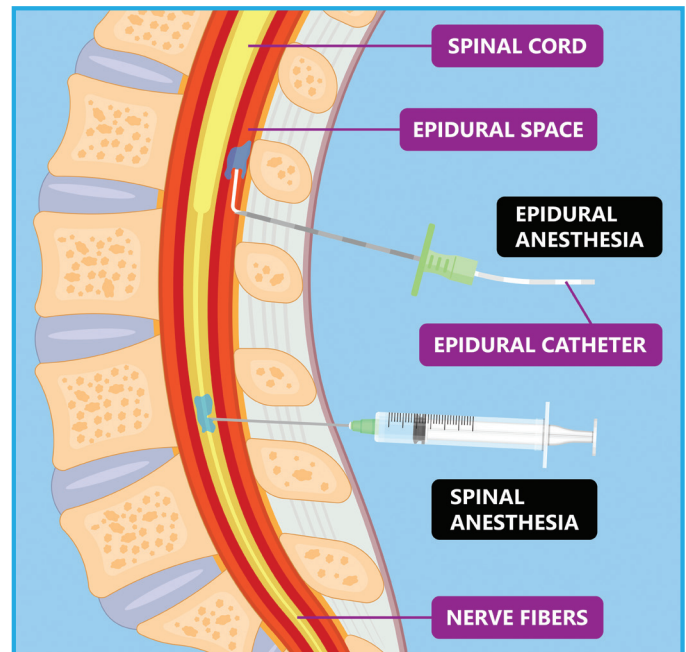


Image: Epidural and spinal anaesthesia.
ID: 1769472851. www.shutterstock.com

Potential benefits of an epidural or spinal anaesthetic

The advantages of an epidural and/or spinal anaesthetic compared to a general anaesthetic include:

- less risk of a chest infection after surgery
- less effect on the lungs and breathing
- excellent pain relief immediately after surgery
- less need for strong pain-relieving medicines, and their side effects, including nausea, confusion, drowsiness, and constipation
- less sickness and vomiting
- quicker return to drinking and eating after surgery
- less risk of becoming confused after the operation, especially if you are an older person
- improved bowel recovery after bowel surgery

- improved blood flow after vascular surgery
- if you are having a caesarean section birth, you will be able to see your baby as soon as they are born, the baby will only get incredibly small amounts of any medications given and your partner can be with you.

Preparing for the anaesthetic

You are at less risk of problems from an anaesthetic if you do the following:

- Increase your fitness before your anaesthetic to improve your blood circulation and lung health. Ask your GP about exercising safely.
- Lose weight, this will reduce many of the risks of having an anaesthetic. Ask your GP about losing weight safely.
- Stop smoking as early as possible before your surgery to give your lungs and heart a chance to improve. Smoking cuts down the oxygen in your blood and increases breathing problems during and after an operation. Phone 13 QUIT (13 78 48).
- Drink less alcohol, as alcohol may alter the effect of the anaesthetic medicines.
- Do not drink any alcohol 24 hours before surgery.
- Stop taking recreational drugs (this includes recreational smoking such as marijuana) before your surgery as these may affect the anaesthetic.
- If you take anticoagulant or antiplatelet (blood thinning) medicines:
 - ask your surgeon and/or anaesthetist if you should stop taking your anticoagulant or antiplatelet (blood thinning) medicines before surgery as it may affect your blood clotting
 - do NOT stop blood thinning medicines without medical advice
 - if you are asked to stop taking blood thinning medicine before your procedure, ask your doctor/clinician when you can restart the blood thinning medicine.

On the day of your procedure:

- **Nothing to eat or drink** ('nil by mouth'): you will be told when to have your last meal and drink. Do NOT eat (including lollies), drink, or chew gum after this time otherwise your operation may be delayed

or cancelled. This is to make sure your stomach is empty so that if you vomit, there will be nothing to go into your lungs.

- **If you are a smoker or drink alcohol:** do not smoke or drink alcohol.
- **If you are taking medicines:** most medicines should be continued before an operation and taken the usual time even on the day of surgery with a sip of water. There are some important exceptions:
 - your doctor/clinician will provide specific instructions about your medicines
 - take to the hospital all your prescribed medicines, those medicines you buy over the counter, herbal remedies and supplements to show your anaesthetist what you are taking.
- **If you feel unwell:** telephone the ward/hospital for advice.
- Tell your doctor/clinician and the anaesthetist if you have:
 - health problems (e.g. diabetes, high blood pressure, infectious diseases, serious illnesses), including if regular treatment or a stay in hospital is needed
 - a drug addiction
 - had previous problems and/or known family problems with anaesthesia
 - false teeth, caps, loose teeth or other dental problems
 - been taking prescribed and/or over the counter medicines, herbal remedies and supplements; this may include and are not limited to blood thinning medicines, the contraceptive pill, antidepressants and/or diabetic medicines (e.g. insulin)
 - allergies/intolerances of any type and side effects.

During the procedure

Before the procedure commences, a 'drip' (also known as a cannula, intravenous fluids or IV) is always put into one of your veins, usually in your hand or lower arm.

You will normally have the epidural or spinal injection into your back either sitting, or lying on your side, on the trolley or operating table. The anaesthetist and the team will explain what they want you to do. Just like an operation, the injections are done in a very clean (sterile) way.

Local anaesthetic is given into the skin to reduce the pain of the epidural or spinal needle.

When the anaesthetist is inserting the spinal or epidural needle, they will ask you to stay as still as possible and to tell them if you feel any discomfort, tingling or shock sensations. It can take more than one attempt to get the needle in the right place. If you find this difficult, tell your anaesthetist as there are things they can do to help, including switching to a different kind of anaesthetic.

With an **epidural** anaesthetic, a very thin plastic tube is inserted through an epidural needle into your back (outside the spinal space that holds the spinal cord). The needle is removed after the tubing is in place. The fine plastic tubing is taped onto your back and medicines can be given through this tube for a number of days if needed. You may have a constant slow infusion or you may have a button to push to give yourself a dose of the pain relief. This is called Patient Controlled Epidural Analgesia (PCEA).

With a **spinal** anaesthetic a single injection of anaesthetic medicines, is given into the spinal space by a very fine needle where the medication mixes with the spinal fluid. It also blocks the movement signals which mean that you will be unable to move your legs while it is working. This type of anaesthesia is quick to work (usually within 5–10 minutes). In some circumstances a catheter, like with an epidural, can be used.

You may notice a warm tingling sensation as the epidural or spinal anaesthetic starts to take effect. The anaesthetist will not let the operation begin until they are satisfied that the area is numb.

While you will be pain free during an operation, you may feel movement and pressure sensations around the area of the operation.



2. What are the risks?

There are risks and complications with anaesthesia. There may also be risks specific to each person's individual condition and circumstances. Please discuss these

with the doctor/clinician and ensure they are written on the consent form before you sign it. Risks include but are not limited to the following:

Common risks and complications

- nausea, vomiting, itching and shivering – inform the staff as these can be treated
- low blood pressure:
 - this can make you feel faint, dizzy or sick
- problems in passing urine - you may require a catheter to be placed in your bladder
- pain during the injection:
 - immediately tell your anaesthetist if you feel pain in places other than where the needle is
 - the pain might be in your legs or bottom and might be due to the needle touching a nerve
 - the needle may need to be repositioned
- headache and/or backache
- pain, bruising and/or bleeding at the injection site
- bleeding/bruising is more common if you have been taking blood thinning drugs, such as warfarin, aspirin, clopidogrel (Plavix, Iscover, Coplavix), prasugrel (Effient), dipyridamole (Persantin or Asasantin), ticagrelor (Brilinta), apixaban (Eliquis), dabigatran (Pradaxa), rivaroxaban (Xarelto) or complementary/alternative medicines, such as fish oil and turmeric
- prolonged numbness or tingling.
- leaking of stomach content into the lungs (aspiration).

Uncommon risks and complications

- severe headache:
 - can occur after a spinal injection
 - it will get worse on sitting or standing and improves if you lie down
 - you will need to see an anaesthetist
 - if you are still in hospital, your nurses and/or the surgical team will contact your anaesthetist for an assessment
 - if you have left hospital, seek help from your GP or by attending the emergency department
- temporary nerve damage:
 - temporary loss of sensation, pins and needles and sometimes muscle weakness in the lower body

- may last for a few days, weeks or months
- overdose of medicines
- the anaesthetic does not fully work: this may require further anaesthetic and/or a different method of anaesthesia to be used
- allergic reaction to the medication, requiring further treatment
- existing medical problems getting worse.

Rare risks and complications

- permanent nerve damage with possible paralysis
- severe breathing difficulty: the block may go higher than planned and affect breathing by paralysing the breathing muscles
- infection around injection site and epidural catheter which may cause meningitis and/or epidural abscess, requiring antibiotics and further treatment
- deafness (usually short-term)
- blurred or double vision
- blood clot with spinal cord damage
- serious allergic reaction or shock to the medication, requiring further treatment
- equipment failure (e.g. breakage of needles or catheters possibly requiring surgery to remove them)
- seizures may occur, requiring further medication and treatment
- heart attack or stroke could occur due to the strain on the heart
- death as a result of this anaesthesia is rare.

What are the risks of not having epidural and spinal anaesthesia?

Not having an anaesthetic may result in you not being able to have the procedure.

There may be health consequences if you choose not to have the proposed anaesthesia. Please discuss these with the doctor/clinician.



3. Are there alternatives?

Making the decision to have an anaesthetic requires the patient/substitute decision-maker to understand the options available. Please discuss any alternative treatment options with your doctor/clinician.



4. What should I expect after the anaesthetic?

The numbness/weakness may take several hours to wear off or continue for longer if you have an epidural infusion. It is very important that during this time you do not attempt to walk unless approved by your doctor/clinician. You will be unsteady on your feet. Ask for help from the nurse to help you walk. Do not attempt to walk by yourself.

As sensation returns, you may experience some tingling in the skin. At this point, you may become aware of some pain from the operation site. Ask for more pain relief before the pain becomes too obvious.

Within the first 2 weeks after an epidural, if you have any numbness, weakness, headache or severe back pain contact the anaesthetist/your GP/emergency department.



5. Who will be performing the anaesthetic?

A doctor/clinician other than the consultant/specialist may assist with/conduct the clinically appropriate anaesthetic. This could be a doctor/clinician undergoing further training, all trainees are supervised according to relevant professional guidelines.

If you have any concerns about which doctor/clinician will be performing the anaesthetic, please discuss with the doctor/clinician.

Your anaesthetist is a doctor with specialist training who will:

- assess your health and then discuss with you the type of anaesthetic suitable for your surgery or procedure
- discuss the risks of suitable anaesthetic options
- agree to a plan with you for your anaesthetic and pain control
- be responsible for giving your anaesthetic and caring for you during your surgery and straight after your surgery or procedure
- manage blood transfusions if required.

You may be seen and cared for by a specialist anaesthetist, a GP with training in anaesthetics (particularly in rural areas) or a doctor/healthcare professional/student undergoing further training. All trainees are supervised according to relevant professional guidelines.



6. Where can I find support or more information?

Australian and New Zealand College of Anaesthetists: www.anzca.edu.au/patient-information/anaesthesia-information-for-patients-and-carers.

Royal College of Anaesthetists: www.rcoa.ac.uk/patientinfo.

Staff are available to support patients' cultural and spiritual needs. If you would like cultural or spiritual support, please discuss with your doctor/clinician.

The Canberra Heart Clinic recognises that Aboriginal and Torres Strait Islander patients will experience the best clinical care when their culture is included during shared decision-making.



7. Questions

Please ask the doctor/clinician if you do not understand any aspect of this patient information sheet or if you have any questions about your/the patient's medical condition, treatment options and proposed anaesthetic.



8. Contact us

In an emergency, call Triple Zero (000).

If it is not an emergency, but you have concerns, contact (1800 022 222), 24 hours a day, 7 days a week.