



This information sheet answers frequently asked questions about having epidural and spinal anaesthesia. It has been developed to be used in discussion with your doctor or healthcare professional.

1. What is a spinal or epidural anaesthetic and how will it help me?

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.

2. 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

2. Potential benefits of an epidural or spinal anaesthetic (*continued*)

- 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.

3. What are the risks of the anaesthetic?

Every anaesthetic has a risk of side effects and complications. Whilst these are usually temporary, some of them may cause long-term problems.

Common side effects and complications include:

- low blood pressure:
 - this can make you feel faint or sick
 - the anaesthetist can treat low blood pressure with fluids and medications given through your drip into your vein
- nausea and vomiting
- shivering
- itching:
 - is a side effect of some of the medications in the anaesthetic
 - inform the staff if you are itchy—it can be treated
- problems in passing urine (urinary retention):
 - you may require a catheter to be placed in your bladder while the anaesthetic wears off and for a short time afterwards
 - bowel function is not affected
- 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:
 - there are many causes of headache after an operation, including the anaesthetic, being dehydrated, not eating and anxiety
 - most headaches get better within a few hours and can be treated with pain relieving medicines

© The State of Queensland (Queensland Health) 2017
 Except as permitted under the Copyright Act 1968, no part of this work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without prior permission from Queensland Health.
 To request permission, email: ip.officer@health.qld.gov.au
 Source of images 1 & 2: Royal College of Anaesthetists



SWP19465

3. What are the risks of having an anaesthetic? *(continued)*

- bruising (haematoma) at the injection site:
 - if you take blood thinning medicines you are more likely to get a haematoma as it may affect your blood clotting
- pain and tenderness at the injection site (usually temporary)
- aches and pains
- prolonged numbness or tingling
- chest infection.

Uncommon side effects and complications include:

- 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 which may lead to slow breathing: the anaesthetist can treat this
- the anaesthetic does not fully work: this may require further anaesthetic and/or a different method of anaesthesia to be used
- allergic reaction
- existing medical problems getting worse.

Rare side effects and complications include:

- permanent nerve damage with possible paralysis: it has about the same chance of occurring as major complications of having a general anaesthetic
- severe breathing difficulty: the block may go higher than planned and affect breathing by paralysing the breathing muscles
- infection (e.g. around injection site and epidural catheter; epidural abscess) requiring antibiotics and further treatment
- short term deafness
- double vision
- blood clot with spinal cord damage
- serious allergic reaction
- equipment failure (e.g. breakage of needles or catheters possibly requiring surgery to remove them)
- leaking of stomach content into the lungs

3. What are the risks of having an anaesthetic? *(continued)*

- seizures (convulsions or fits)
- meningitis
- cardiac arrest
- severe harm or death (very rare).

4. What are my specific risks?

There may also be risks specific to your individual condition and circumstances. Your doctor/healthcare professional will discuss these with you. Ensure they are written on the consent form before you sign it.

5. What are the risks of not having the proposed anaesthetic?

There may be consequences if you choose not to have the proposed anaesthetic. Please discuss these with your doctor/healthcare professional.

6. What does my anaesthetist do?

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.

7. What happens during my anaesthetic 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.



7. What happens during my anaesthetic procedure? (continued)

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



Image 1: Person sitting on the side of a patient trolley, and bending over from the waist.

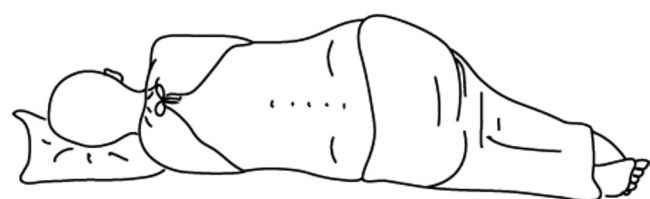


Image 2: Person lying on their side with knees bent.

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.

7. What happens during my anaesthetic procedure? (continued)

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.

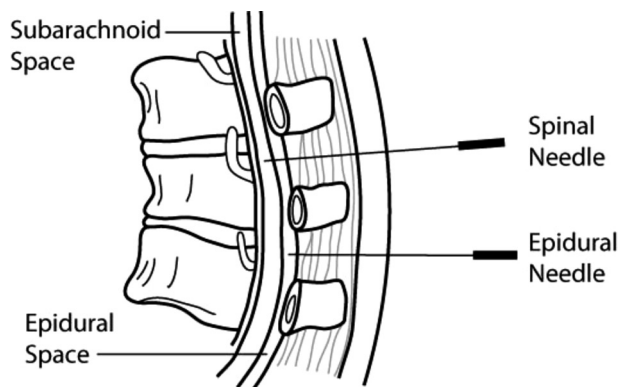


Image 3: The spinal and epidural spaces.

8. What happens after the epidural or spinal anaesthetic?

- The numbness and weakness may take up to 4 hours to wear off or continue for longer if you have an epidural infusion. During this time, 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 a spinal if you have any numbness, weakness, headache or severe back pain contact the anaesthetist/your GP/emergency department.

9. What are my responsibilities before having an anaesthetic nerve block?

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

In preparation for your procedure:

- Increase your fitness before your procedure to improve your blood circulation and lung health. Ask your GP about exercising safely.
- If you are overweight, losing some weight will reduce many of the risks of having an anaesthetic. Ask your GP about losing weight safely.



SWP19465

9. What are my responsibilities before having an anaesthetic nerve block?

(continued)

- 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 such as warfarin, aspirin, clopidogrel (Plavix, Iscover, Coplavix), prasugrel (Effient), dipyridamole (Persantin or Asasantin), ticagrelor (Brilinta), ticlopidine (Tilodene), apixaban (Eliquis), dabigatran (Pradaxa), rivaroxaban (Xarelto) or complementary/herbal/alternative medicines, such as fish oil and turmeric:
 - ask your surgeon and/or anaesthetist if you should stop taking it 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 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, but there are some important exceptions:
 - your doctor will provide specific instructions about your medicines

9. What are my responsibilities before having an anaesthetic nerve block?

(continued)

- 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 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.

10. Useful sources of information

Information on *Hospital care: before, during and after* and *Surgical procedures* is available on the Queensland Health website: www.qld.gov.au/health/services/hospital-care/before-after/index.html

Further information may be found on the following websites:

- Queensland Health: www.health.qld.gov.au/consent
- Australian and New Zealand College of Anaesthetists: www.anzca.edu.au/patients
- Royal College of Anaesthetists: www.rcoa.ac.uk/patientinfo
(This publication includes text taken from the Royal College of Anaesthetists' (RCoA) leaflets 'Your spinal anaesthetic, 2014' and 'Headache after a spinal or epidural injection, 2015' but the RCoA has not reviewed these as a whole).



