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Document Title:
Spinal Anaesthetic

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Document Code
A05

Issued
October 2016

Expires
October 2017

What is a spinal anaesthetic?

A spinal anaesthetic (or spinal) involves injecting local anaesthetics and other painkillers into an area called the subarachnoid space, near your spinal cord. This numbs your nerves to give pain relief in certain areas of your body. A spinal can be used either on its own while you are awake, or together with sedation or a general anaesthetic. A spinal can also be used after an operation or procedure to give effective pain relief.

The spinal will be given to you by an anaesthetist (doctor trained in anaesthesia). Your anaesthetist is usually assisted by a specially-trained healthcare practitioner. A spinal has been recommended for you. However, it is your decision to go ahead with a spinal or not.

This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, ask your anaesthetist or the healthcare team.

How does a spinal work?

A spinal works by temporarily numbing your nerves to give pain relief. The subarachnoid space is the bag of fluid that surrounds your spinal cord and the nerves that come out from it. Local anaesthetics and other painkillers are injected using a fine needle into this space. The needle is removed and nothing is left in your back.

What will happen if I decide not to have a spinal?

There may be clinical reasons not to use a spinal such as having an allergy to the type of anaesthetic or materials used, or an infection at the site where the needle will be inserted. If you decide not to have a spinal, your anaesthetist may be able to suggest other methods of pain relief such as using a general anaesthetic alone, or other types of painkiller such as morphine.

What happens before a spinal?

If you are female, the healthcare team may ask you to have a pregnancy test. Sometimes the test does not show an early-stage pregnancy so let the healthcare team know if you could be pregnant.

Do not eat in the 6 hours before the spinal. You may drink small sips of water up to two hours before. If you have diabetes, let the healthcare team know as soon as possible. You will need special advice depending on the treatment you receive for your diabetes.

Before you are given the spinal, the healthcare team will attach some monitors to you that measure your blood pressure and the amount of oxygen in your blood. If you need oxygen, they will give it to you through a mask or small tube in your nostrils.

Your anaesthetist and the healthcare team will carry out some final checks with you and each other. Even though you may have been asked some of the questions before, it is important to answer carefully as the checks are carried out for your own safety.

How is a spinal given?

To insert the needle, your anaesthetist will ask you either to sit up or lie on your side. You will need to curl up and arch your back as much as possible as this makes it much easier for your anaesthetist to find the right position (see figure 1).

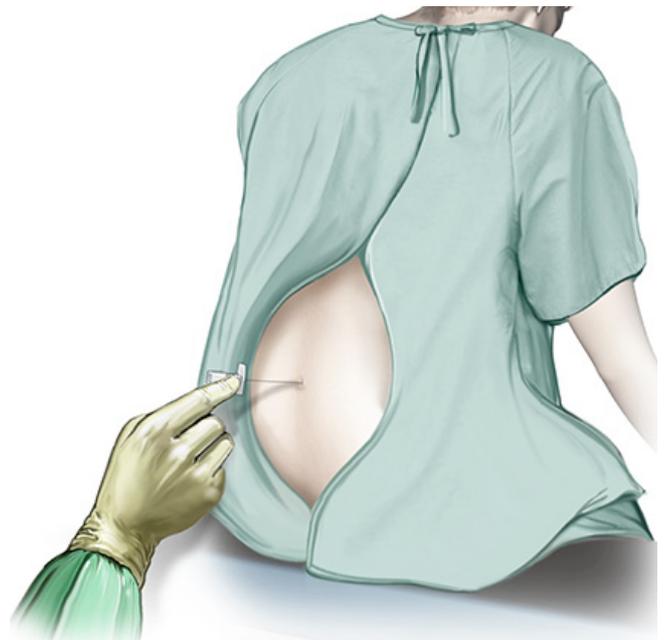


Figure 1

A spinal being given

Your anaesthetist will inject local anaesthetic into the area where they will insert the needle. This stings for a moment but will make the area numb, allowing your anaesthetist to insert the needle with much less discomfort for you.

Your anaesthetist will insert the needle and when they are certain that it is in the right position they will inject anaesthetic through it. They will remove the needle (see figure 2).

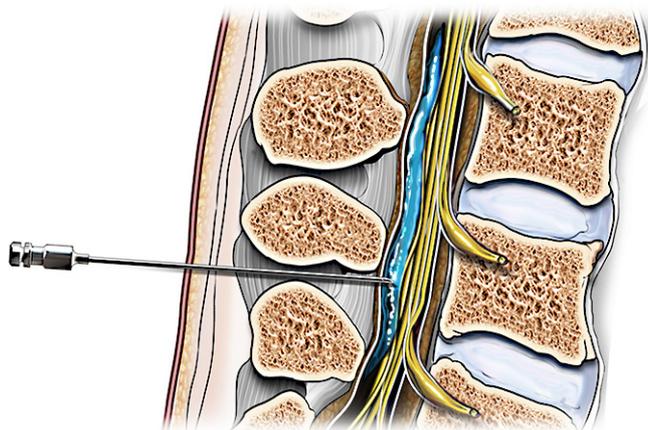


Figure 2

A spinal needle in the subarachnoid space

You can help your anaesthetist by keeping still while they insert the needle. It should not be painful, although it can be uncomfortable. If you feel pain, let your anaesthetist know. As the spinal starts to work, you may feel a warm sensation in the area being numbed.

What effect does a spinal have?

The effect of the spinal can be varied by changing the type and amount of medication given. A spinal has three main effects.

- Pain relief – The spinal numbs the sensory nerves responsible for pain and touch. This gives pain relief but can also make the area feel numb or heavy. Pain nerves are easier to block than touch nerves so although you may be able to feel someone touching or pulling you, it should not hurt. Sensory nerves are more easily affected than movement nerves, so sometimes you can be numb but still able to move your legs.
- Weakness – The nerves supplying muscles may also be affected. This can make it difficult for you to move your legs. It may also make it difficult for you to pass urine properly.
- Low blood pressure – The nerves that help to control blood pressure are the most easily affected. You may not be aware of this happening but your anaesthetist will be monitoring you closely for any problems with low blood pressure.

If you are having an operation using only a spinal, the operation will not start until your anaesthetist is satisfied that the spinal is working well.

The time that the spinal lasts for varies but is usually one to three hours. Your anaesthetist will put enough anaesthetic through the needle to make sure that it lasts longer than the expected length of the operation.

Sometimes surgery takes much longer than expected and the spinal starts to wear off. Your anaesthetist will discuss other forms of pain relief with you.

A spinal gives good pain relief but, like other forms of pain relief, cannot guarantee that you will be pain-free.

What can I do to help make the operation a success?

• Keeping warm

It is important to keep warm around the time of the operation. The hospital may be colder than your home, so bring extra clothing or a dressing gown. If you become too cold you may have a higher risk of developing complications such as an infection of the surgical site (wound) or heart problems. Let the healthcare team know if you feel cold.

Your anaesthetist will take steps to keep you warm when you are having the operation.

• Lifestyle changes

If you smoke, stopping smoking several weeks or more before the operation may reduce your risk of developing complications and will improve your long-term health.

Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight.

Regular exercise should help to prepare you for the operation, help you to recover and improve your long-term health. Before you start exercising, ask the healthcare team or your GP for advice.

What complications can happen?

Your anaesthetist will try to make the spinal as safe as possible but complications can happen. A serious complication happens in about 1 in every 50,000 spinals. There is a risk of significant permanent harm from a spinal (overall risk: 1 in 38,000 to 1 in 62,000). The possible complications of a spinal are listed below. Any numbers which relate to risk are from studies of people who have had a spinal. Your anaesthetist may be able to tell you if the risk of a complication is higher or lower for you.

- Failure of the spinal. Most spinals work well first time but sometimes they do not. Your anaesthetist may repeat the injection or discuss with you other options such as a general anaesthetic.
- Low blood pressure. The risk depends on your medical condition, the type of medication used and the surgery being performed. It is easily treated and you will be closely monitored by your anaesthetist. Sometimes the first sign of a fall in blood pressure is feeling sick or light-headed. It is important that you let your anaesthetist know straightaway if this happens.
- Headache is common after an operation. There is a particular type of headache that can happen if the bag of fluid around your spinal cord is punctured (risk: 1 in 100). This headache can vary from mild to severe and can be treated.
- Itching, if morphine or similar painkillers are given. The effect is usually mild, although it can sometimes be more severe. Medication can be used to treat the itching and it always goes away.
- Difficulty passing urine because the nerves to your bladder are numbed. You will usually have a catheter (tube) in your bladder to help you to pass urine.
- Backache is common after an operation. It is common to have a bruised feeling for a few days where the spinal was inserted. There is no evidence that having a straightforward spinal causes long-term backache.
- Loss or change of hearing. For most people this is mild and gets better. The risk is higher in young people.
- Cardiovascular collapse (where your heart stops) (risk: 1 in 100,000).
- Unexpected high block, if the local anaesthetic spreads beyond the intended area (risk: 1 in 5,000). This can make it difficult for you to breathe, cause you to have low blood pressure and, rarely, cause you to become unconscious. You may be transferred to the intensive care unit or high dependency unit so the healthcare team can monitor you more closely.
- Infection around your spine (abscess or meningitis), causing permanent damage (risk: 1 in 100,000).
- Nerve damage (risk: less than 1 in 23,000). This is not usually serious and gets better. Sometimes the damage can be permanent (risk: 1 in 100,000).

- Various other more serious problems have been reported with spinals, including spinal abscess (risk: 1 in 100,000) and blood clots (haematoma) (risk: 1 in 200,000).
 - Paralysis or death (risk: 1 in 48,000 to 1 in 91,000). This can be caused by infection, bleeding near your spinal cord or injury to your spinal cord.
- You should discuss these possible complications with your anaesthetist if there is anything you do not understand.
- A complication may happen after you have had a spinal. If you have any of the following problems, you or your doctor should contact the hospital straightaway.
- Pus, redness, tenderness or pain where the spinal was inserted.
 - A high temperature.
 - Feeling unwell, even after recovering from the operation itself.
 - Discomfort when in a bright room or sunlight (photophobia).
 - Neck stiffness.
 - Difficulty moving or feeling your legs.
 - Difficulty passing urine.
 - Bowel incontinence.

How soon will I recover?

A spinal can affect your reactions. Do not drive, operate machinery or do any potentially dangerous activities (this includes cooking) until you have fully recovered feeling, movement and co-ordination. The effect of the spinal will wear off after a few hours. It is important to have another form of pain relief ready for when it wears off.

Summary

A spinal anaesthetic can be used for most people, usually giving a safe and effective form of pain relief both during and after an operation or procedure. However, complications can happen. You need to know about them to help you to make an informed decision about the anaesthetic. Knowing about them will also help to detect and treat any problems early.

Keep this information leaflet. Use it to help you if you need to talk to a healthcare professional.

Acknowledgements

Author: Dr Iain Moppett DM MRCP FRCA
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