



Risks associated with your anaesthetic

# Headache after a spinal or epidural injection

## Summary

This leaflet explains why a certain type of headache may occasionally develop after an epidural or spinal injection. This is called a post dural puncture headache. This leaflet explains the symptoms, the cause and the treatment of this type of headache.

## What kind of headache is it?

Headaches after surgery or childbirth are very common. A post dural puncture headache is an unusual and specific kind of severe headache which can only happen after an epidural or spinal injection. It can be felt at the front or the back of the head. It is worse when sitting or standing and it gets better when lying down flat. There may also be neck pain, sickness and a dislike of bright lights.

Some patients describe it as like a very bad migraine that is made worse when sitting or standing up.

It is most likely to start between one day and one week after the spinal or epidural injection. Young patients and women having the spinal or epidural for childbirth are more likely than other people to have a postdural puncture headache.

## How likely is it?

The risk of getting a post dural puncture headache after an epidural or spinal injection is between 1 in 100 and 1 in 500 procedures.

## What causes the headache?

Your brain and spinal cord are contained in a bag of fluid. The bag is called the **dura** and the fluid is called the cerebro-spinal fluid (CSF).

For an **epidural**, a needle is used to inject local anaesthetic just outside the dura. If the needle accidentally passes through the dura, a small hole is made, through which CSF can leak out.

When a **spinal** injection is given, a very fine needle is inserted through the dura deliberately. Although the hole made by a spinal needle is exceptionally small, in some people this can still lead to leakage of CSF.

If too much fluid leaks out through the hole in the dura, the pressure in the rest of the fluid around the brain is reduced. This causes the typical headache. If you sit up, the pressure around your brain is reduced even more. This lowered pressure makes the headache worse.

## What can be done about the headache?

Lying flat as much as you can will help.

You should take a simple pain relief drug, such as paracetamol. You can take ibuprofen as well providing you are not intolerant of it. Your doctor can advise you if it is safe to take ibuprofen, or you can check the information in the patient information leaflet supplied with the tablets.

You should also drink plenty of fluid. Caffeine drinks such as tea, coffee or cola are especially helpful.

You should avoid heavy lifting and straining.

## What are my choices if the headache persists?

Although the hole in the dura will usually seal over in a number of weeks, it is not usually advisable to wait for this to happen.

The brain is cushioned by the CSF around it. If the headache is left untreated, this cushioning is not present and it is occasionally possible for bleeding to occur into or around the brain (a subdural haematoma). Very occasionally a fit (seizure) can happen. Your anaesthetist can explain more about these events.

A post dural puncture headache is therefore frequently treated with an **epidural blood patch**.

## What is an epidural blood patch?

Some of your own blood is injected into your back. The aim is that the blood seals the hole in the dura and stops the leak of fluid.

Great care is taken to clean your arm and take blood in a fully sterile (clean) manner. This reduces the risk of infection. Blood is carefully injected into your back using an epidural needle, near to the hole in the dura.

The blood will clot and tend to seal the hole that has been made in the dura. As the fluid leak is stopped, the pressure around the brain will increase and the headache should improve.

## What if I still have a headache?

In 60–70% people who have this kind of headache, the blood patch will cure the headache within 24 hours. If the headache continues, or if the headache returns, you may be advised to have another blood patch. Your anaesthetist will discuss this with you.

## What risks are associated with a blood patch?

A blood patch may cause local bruising on the back where the injection has been done.

A blood patch can occasionally cause quite significant backache and stiffness which can last a few days.

Epidurals and blood patches do not cause long-term backache.

There is a small chance that another accidental dural puncture could occur when the blood patch injection is done.

Nerve damage, infection or bleeding into the back are very rare complications of epidurals, spinals and blood patches. Having a fit during the blood patch has also been described very occasionally. This would be managed immediately by the anaesthetist.

The following are NOT normal after a blood patch:

- difficulty passing urine
- severe back pain
- loss of sensation in your back or legs.

In the very unlikely event any of these develop, you should contact your anaesthetist or another doctor immediately.

## Some comments on having a blood patch

*'When it finally worked, the blood patch was wonderful...'*

*'My back was stiff for a little while, but I was mostly back to normal very quickly.'*

## Other causes of severe headache after childbirth

If you have a severe headache after having a baby, there are other causes for severe headache that your doctors need to consider. Some of these headaches are very serious and require immediate treatment.

All severe or persistent headaches after childbirth should be reported immediately to the obstetric team for further investigation and appropriate management.

## Headache after a spinal or epidural injection

**If the headache is associated with drowsiness, confusion or vomiting, this should be regarded as a medical emergency. Please contact your GP or hospital immediately, or call the emergency services.**

## Further information

Anaesthetists are doctors with specialist training who:

- discuss the type or types of anaesthetic that are suitable for your operation. If there are choices available, your anaesthetist will help you choose what is best for you
- discuss the risks of anaesthesia with you
- agree a plan with you for your anaesthetic and pain control
- are responsible for giving your anaesthetic and for your wellbeing and safety throughout your surgery
- manage any blood transfusions you may need
- plan your care, if needed, in the intensive care unit
- make your experience as calm and pain free as possible.

## Common terms

**General anaesthesia** – This is a state of controlled unconsciousness during which you feel nothing and may be described as ‘anaesthetised’.

**Regional anaesthesia** – This involves an injection of local anaesthetic which makes part of your body numb. You stay conscious or maybe sedated, but free from pain in that part of your body.

## Risks and probability

In modern anaesthesia, serious problems are uncommon. Risk cannot be removed completely, but modern drugs, equipment and training have made anaesthesia a much safer procedure in recent years.

The way you feel about a risk is very personal to you, and depends on your personality, your own experiences and often your family and cultural background. You may be a ‘risk taker’, a ‘risk avoider’, or somewhere in between. You may know someone who has had a risk happen to them, even though that is very unusual. Or you may have read in the newspapers about a risk and be especially worried about it.

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

## Headache after a spinal or epidural injection



**Very common**

**Common**

**Uncommon**

**Rare**

**Very rare**

1 in 10

One person in  
your family

1 in 100

One person in  
a street

1 in 1,000

One person in  
a village

1 in 10,000

One person in  
a small town

1 in 100,000

One person in  
a large town

Your anaesthetist will give you more information about any of the risks specific to you and the precautions taken to avoid them. There are some rare risks in anaesthesia that your anaesthetist may not normally discuss routinely unless they believe you are at higher risk. These have not been listed in this leaflet.