



University Hospital  
Southampton  
NHS Foundation Trust

# Cauda equina syndrome

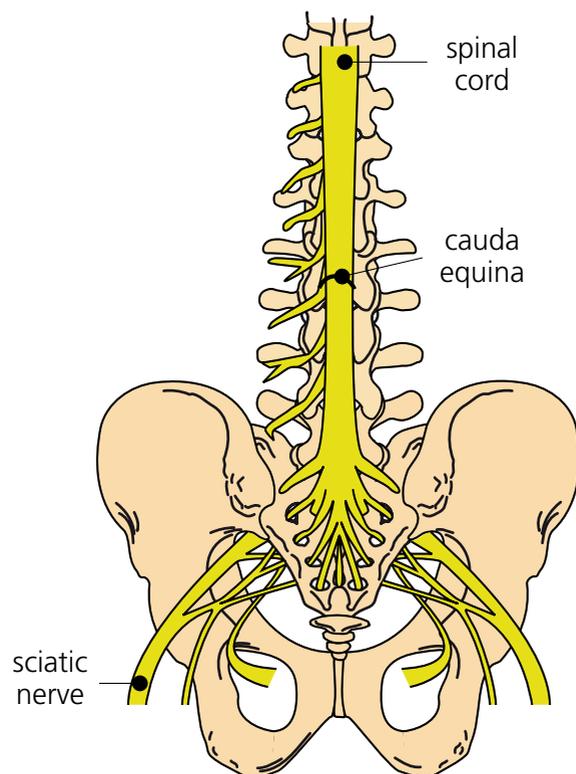
Information for patients



**Cauda equina syndrome is a condition which occurs when the nerves at the base of the spinal cord are squeezed together. It can cause pain in the lower back and/or legs, numbness or weakness in one or both legs, in the buttocks or between the legs (the 'saddle region'). It can also cause problems with bladder or bowel control and sexual function.**

### What is the cauda equina?

The term relates to the lower end of the spinal cord, where the nerves fan out into a bundle of fibres that looks like a horse's tail ('cauda equina' is Latin for 'horse tail'). These nerve fibres leave the spinal canal through holes between each vertebra (the bones in your back).



### What do the nerves do?

Some of the nerves join to form the sciatic nerve or nerves controlling the legs. Some also provide the sensation and control for the bladder, anal and genital regions.

### What has happened to these nerves?

The cauda equina lies behind the lumbar discs, in the spinal canal. These discs sit between the vertebrae (bones of the back) but can sometimes rupture (known as a large disc prolapse or 'slipped disc'). This can happen quite suddenly, usually in younger people. When this happens, the nerves of the cauda equina can become trapped and squashed. In older people, it may happen gradually and be combined with other arthritic changes within the spine. The effects may be noticed more slowly, and even regarded as simply 'part of getting old'.

Any squashing of the nerves can cause pain, numbness and/or weakness of the legs, particularly the foot and ankle. It could also cause difficulty with bladder and bowel control, numbness between the legs or over the buttocks and difficulty with sexual function.

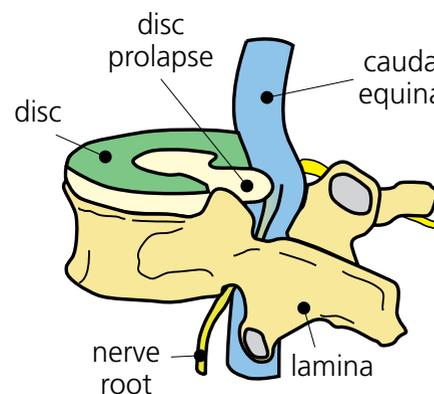


Fig 1

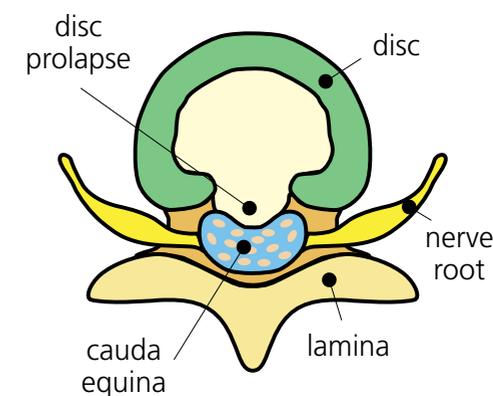


Fig 2

## What does the surgery involve?

We can perform an operation to help people with cauda equina syndrome. The operation most commonly performed is called a laminectomy. During a laminectomy, part of the vertebra (backbone) called the lamina is removed. This opens up the space surrounding the cauda equina, relieving the pressure on the nerves. It also allows a large enough window for any disc prolapse (slipped disc) to be removed. The surgeon will make a cut over the area which will leave a scar of about four to six cm (1.5 to 2.5 ins).

## What can I expect after surgery?

Immediately after surgery you may feel soreness in your back from the wound, but the amount of pain you will experience is often linked to the amount of pain you were in before surgery.

Everyone is different; after surgery some people notice an immediate improvement in some or all of their symptoms, particularly the leg pain. Others experience damage to their nerves which means that they are left with numbness or tingling. These symptoms usually improve over time – nerves can take a long time to recover (18 months to two years, sometimes more), so don't feel too disappointed if you don't experience an immediate improvement. However, even after this time, some people find that their symptoms don't improve fully or at all. If this is the case for you, you may find that you get used to the feeling and don't notice it so much.

## Weakness and balance

Weakness can also improve with time, as the nerve (or nerves) affected recover, and it may be possible to build up the surrounding muscles in order to compensate for the weaker ones; your physiotherapist will be able to advise you on this. Often people find that they have problems with balance. This can be due to weakness, poor sensation, or a combination of both. Exercises can help here too, and there are various aids and appliances that can help your mobility. Your physiotherapist, occupational therapist or orthotist will be able to give you more information.

## Pain

It is normal to experience some pain in the first few weeks as the nerves and tissues around the wound recover. Back pain can usually be helped by taking painkillers regularly. Some people still have leg pain even though the operation has taken the pressure off the nerves. This is because the nerves are still inflamed or 'irritable'. It can also relate to changes in how pain is perceived within the nervous system.

The pain may vary according to how much you do or your posture/position. It is important to avoid being in any one position for too long (change posture at least every half an hour), and to keep gently mobile with proper rests in between. Painkillers, including anti-inflammatories or medication for what is called 'neuropathic pain' can also be very helpful. You should take them regularly according to the instructions on the packet, especially in the early stages of your recovery.

## Bladder, bowel and sexual function

The nerves to the bladder, bowels and genitals or 'saddle' region (the buttocks and between the legs) will also take time to recover. In some cases the nerves have some degree of permanent damage even though the surgery has taken the pressure off them. Only time will tell how well they will recover. In the meantime, you may still experience some difficulty with:

- passing or controlling urine
- passing or controlling stools
- controlling flatus ('wind')
- a numb sensation in the 'saddle' area
- for men – achieving erections and ejaculation
- for women – reduced sexual function due to reduced sensation

It is very important that bladder problems are managed properly, so you should always discuss them with us. Being unable to empty your bladder could lead to chronic bladder infections and kidney damage. Bladder and bowel control can be made even trickier by added problems such as difficulty walking due to pain, weakness or poor balance, which stop you getting to the toilet in time.

### **Tell us if you experience any of these problems:**

- repeated urinary infections
- feeling of incomplete bladder or bowel emptying
- feeling you need to empty your bladder or bowel unusually often
- leaking urine or diarrhoea

Help and advice for all these problems is available. We can refer you for further advice while you are still in hospital, or if you discover problems later you can use the contacts given on the back page. People often avoid talking about problems with continence or sexual function, but please don't be embarrassed to ask for help. Proper advice can help avoid both the embarrassment and the health risks of cauda equina syndrome.

### **Activity and exercise – getting back to normal**

Our separate back care leaflet gives advice on returning to daily activities, work and exercise after surgery. If you have not yet received this, please ask the nursing or therapy staff for a copy.

### **What if I want further advice or help?**

Talk to us while you are in hospital about anything that concerns you. The doctors, nurses, physiotherapists, or any member of staff you feel comfortable discussing things with, will be able to find the information or put you in touch with someone who can help.

### **Once you are back home**

Often it is only once you are back at home that you know what help you need. In that case you should contact your GP, the ward or the continence advisory service. The specialist nurses there can offer advice and treatments for continence and sexual problems. In most areas you can ring them and refer yourself, without needing to go through your GP. They are there to help you. See the back page for contact numbers.

### **Follow-up appointments (outpatients)**

We will send an appointment to you in the post. If you are unable to make the appointment please contact the outpatient department who can arrange another date for you.

## Useful contacts

Your spinal surgeon, GP or district nurse.

### The ward:

Regional Transfer Unit (RTU) **023 8120 4844**

D Neuro **023 8120 6575**

E Neuro **023 8120 6578**

Physiotherapy **023 8120 3007**

Outpatients **023 8120 6067**

Continence Advisory Service **0300 123 3795**

**If you need a translation of this document, an interpreter or a version in large print, Braille or audio, please call 023 8120 4688 for help.**

**[www.uhs.nhs.uk](http://www.uhs.nhs.uk)**

© 2018 University Hospital Southampton NHS Foundation Trust. All rights reserved. Not to be reproduced in whole or in part without the permission of the copyright holder.

Version 3. Published February 2018. Due for review February 2021. 492