

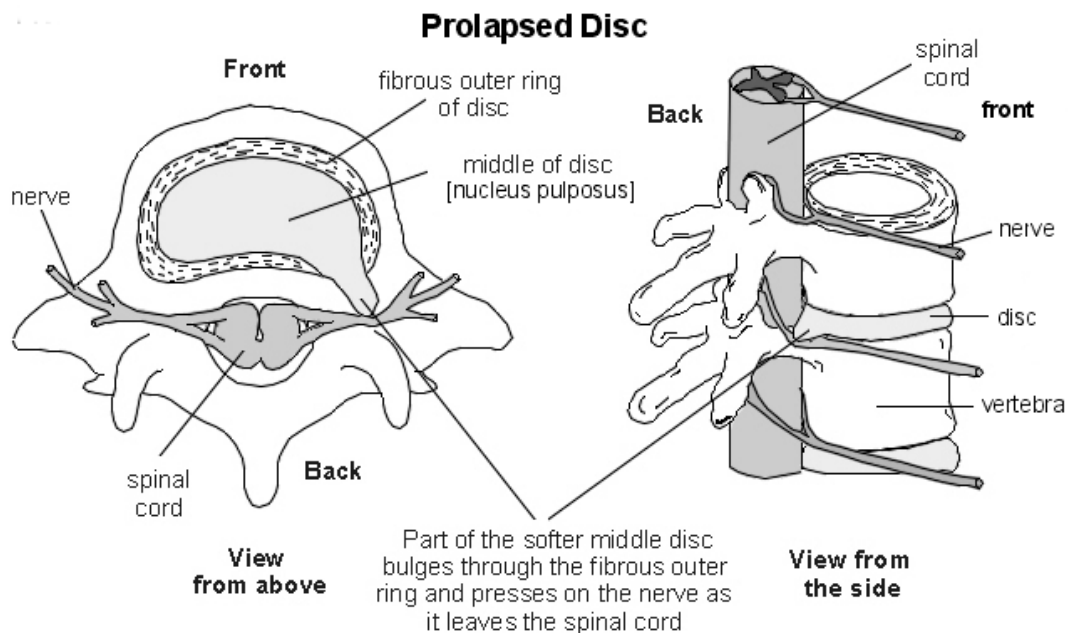
Patient information folder

Herniated spinal disc

You have been diagnosed with a prolapsed spinal disc. A 'slipped' (prolapsed) disc often causes sudden, severe lower back pain. The disc often presses on a nerve root which can cause pain and other symptoms in a leg. In most cases, the symptoms ease off gradually over several weeks. The usual advice is to carry on as normal as much as possible. Painkillers may help. Physical treatments such as spinal manipulation may also help. Surgery may be an option if the symptoms persist.

Anatomy

When you have a 'slipped' (prolapsed) disc, a disc does not actually slip. What happens is that part of the inner softer part of the disc (the nucleus pulposus) bulges out (herniates) through a weakness in the outer part of the disc. A prolapsed disc is sometimes called a herniated disc. The bulging disc may press on nearby structures such as a nerve coming from the spinal cord. Some inflammation also develops around the prolapsed part of the disc. Inflammation may irritate a nerve and also causes swelling, which may put pressure on a nerve.



Any disc in the spine can prolapse. However, most prolapsed discs occur in the lower back (the lumbar spine). The size of the prolapse can vary. The spine is made up of many bones called vertebrae. Each bone (vertebra) is roughly the

shape of a flattened cylinder and between each vertebra is a disc. The discs are made of strong rubbery material which helps the spine to be so flexible. All the discs are the same - they have a stronger fibrous outer part and a softer jelly-like part in the centre called the nucleus pulposus.

The spinal cord contains the nerves that come from the brain. It is protected by the spine. Nerves from the spinal cord come out from between the vertebrae to relay messages to and from various parts of the body.

Strong ligaments attach to the vertebrae. These ligaments give extra support and strength to the spine. Various muscles also go around, and are attached to, various parts of the spine.

Causes

It is not clear why some people develop a prolapsed disc and not others, even when they do the same job or lift the same sort of objects. It seems that some people may have a weakness in the outer part of the affected disc. Various things may trigger the inner softer part of the disc to squeeze out through the weakened outer part of the disc. For example, sneezing, awkward bending, or heavy lifting in an awkward position may cause some extra pressure on the disc. In people with a weakness in a disc, this may be sufficient to cause a prolapse. Factors that may increase the risk of developing a prolapsed disc include:

- A job involving a lot of lifting.
- A job involving a lot of sitting (especially driving).
- Weight-bearing sports (e.g. weightlifting).
- Smoking
- Overweight (obesity)
- Increasing age (a disc is more likely to develop a weakness as we become older).

Symptoms

Back pain

The pain is often severe and usually comes on suddenly. The pain is usually eased by lying still and is often made worse if you move your back, cough or sneeze.

Nerve root pain

Nerve root pain is pain that occurs because a nerve coming from the spinal cord is pressed on (trapped) by a 'slipped' (prolapsed) disc, or is irritated by the inflammation caused by the prolapsed disc. Although the problem is in the

back, you feel pain anywhere along the course of the nerve in addition to back pain. Therefore, you may feel pain below your knee as far as your calf or foot. Nerve root pain can range from mild to severe but it is often worse than the back pain. People often describe nerve root pain as a burning pain.

Other nerve root problems

The irritation or pressure on the nerve next to the spine may also cause pins and needles, numbness or weakness in part of a buttock, leg or foot. The exact site and type of symptoms depend on which nerve is affected.

Cauda equina syndrome

Cauda equina syndrome is a particularly serious type of nerve root problem that can be caused by a prolapsed disc. This is a rare disorder where the nerves at the very bottom of the spinal cord are pressed on. This syndrome can cause low back pain plus:

- Problems with bowel and bladder function (usually inability to pass urine).
- Numbness in the saddle area around the back passage (anus).
- Weakness in one or both legs.

No symptoms

Research studies where routine back scans have been done on a large number of people have shown that some people have a prolapsed disc without any symptoms. It is thought that symptoms mainly occur if the prolapse puts pressure on or irritates a nerve. This does not happen in all cases. Some prolapses may be small, or occur away from the nerves and cause minor or no symptoms.

Diagnosis and tests

Your doctor will normally be able to diagnose a herniated disc from the symptoms and by examining you. In most cases, no tests are needed, as the symptoms often settle within a few weeks.

A magnetic resonance imaging (MRI) scan may be advised if symptoms persist. A scan can show the site and size of a prolapsed disc. This information is needed if treatment with surgery is being considered.

It should be noted that, as explained above, it is known that people can have a disc prolapse without any symptoms. It is therefore very important to make sure that any prolapse seen on a scan matches up with your symptoms. Low

back pain is very common and so can happen to someone who has a disc prolapse on their MRI scan but the disc prolapse is not the cause of the pain who has a disc prolapse on their MRI scan but the disc prolapse is not the cause of the pain.



Treatment

If you have a herniated disc, you should carry on as normal as far as possible. This may not be possible at first if the pain is very bad. However, move around as soon as possible and get back into normal activities as soon as you are able. As a rule, don't do anything that causes a lot of pain. However, you will have to accept some discomfort when you are trying to keep active, this is not harmful. Setting a new goal each day may be a good idea - for example, walking around the house on one day, a walk to the shops the next, etc.

In the past, advice had been to rest until the pain eases. It is now known that this was wrong. You are likely to recover more quickly and are less likely to develop persistent (chronic) back pain if you keep active when you have back pain rather than rest a lot. Also, sleep in the most naturally comfortable position on whatever is the most comfortable surface.

Medication

If you need painkillers, it is best to take them regularly. This is better than taking them now and again just when the pain is very bad. If you take them regularly the pain is more likely to be eased for much of the time, enabling you to exercise and keep active.

Paracetamol

Paracetamol may be sufficient if you take it regularly at full strength but it can safely be taken in addition to anti-inflammatories. For an adult, this is 1000 mg (usually two 500 mg tablets), four times a day.

Anti-inflammatory drugs

Some people find that these work better than paracetamol. They include ibuprofen which you can buy at pharmacies or obtain on prescription. Other

types such as diclofenac or naproxen need a prescription. Some people with asthma, high blood pressure, kidney failure, or heart failure may not be able to take anti-inflammatories.

A *muscle relaxant* such as diazepam is sometimes prescribed for a few days if the back muscles become very tense and make the pain worse.

Neuropathic pain killers

Amitriptyline, duloxetine, gabapentin or pregabalin, are sometimes prescribed if the pain has gone on for more than a few days. These medicines need to be taken regularly to be effective.

Opiates

Stronger painkillers are an option if anti-inflammatories do not suit or do not work well and are usually opiates. These include morphine-like medication such as oxycodone or codeine. Constipation is a common side-effect from opiates. This may make back pain worse if you need to strain to go to the toilet. To prevent constipation, have lots to drink and eat foods with plenty of fibre.

Exercise

General exercise is very important if you have a prolapsed disc. It can help lessen the pain by strengthening the muscles that support your spine.

Exercise not only reduces the pain of a prolapsed disc but may also reduce the chance of it happening again.

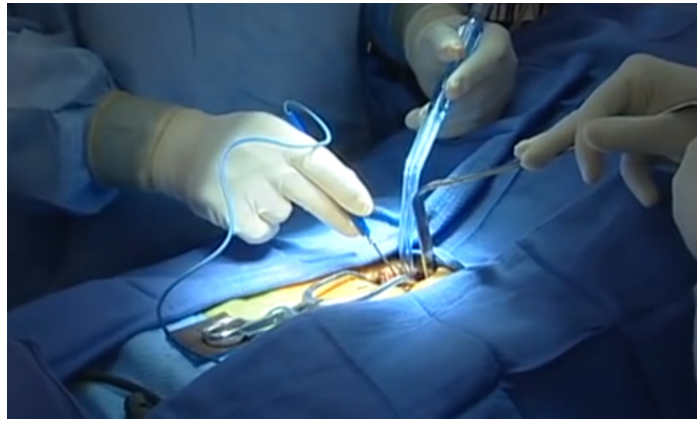
Epidural

An epidural is an injection given into the back. It is usually given into the area in the back around where the sciatic nerve comes out of the spine. It is performed by a specialist. The injection contains a type of local anaesthetic and a steroid, which is a very strong anti-inflammatory. It is essentially a long-term painkiller that can give you enough pain relief that you can start or continue to exercise. The effect of an epidural is not instantaneous but takes up to two weeks to reach maximum effect.

Surgery

Surgery may be an option in some cases. As a rule, surgery may be considered if the symptoms are very severe and have not settled after at least six weeks or more. This is the minority of cases as, in about 9 out of every 10 people with a prolapsed disc, the symptoms have eased off completely or are not bad enough to warrant surgery by this time.

The aim of surgery is to cut out the prolapsed part of the disc and release the pressure on the nerves. This often eases symptoms. However, it does not work in every case. Also, as with all operations, surgery brings risks (infection, complications). A specialist will advise on the pros and cons of surgery and on the different



For more information you can talk to your neurologist or general practitioner!