

Back pain - disc problems

Intervertebral discs are spongy cushions found between the vertebrae of the spine. These discs have a number of important functions including shock absorption, keeping the vertebral column stable and offering the vertebrae 'pivot points' to allow movement.

A disc is made of two parts: the elastic outer shell (annulus fibrosis) and the jelly-like contents (nucleus pulposus). Common disc-related problems include degenerative disc disease and ruptured (or 'slipped') disc.

Symptoms

The symptoms of a damaged disc can vary according to its location and severity, but general signs include:

- Severe, localised pain
- Pain radiating down the legs
- Worsening pain associated with bending over or sitting down for a long time
- Worsening pain associated with activities like coughing or sneezing
- Numbness or pins and needles in an arm or leg.

Risk factors

Some people are more susceptible to disc problems than others. Risk factors include:

- Obesity
- Poor muscle tone
- Lack of regular exercise
- Cigarette smoking
- Advancing age
- Poor posture
- Incorrect lifting techniques.

Often there is no recognisable risk factor present.

Degenerative disc disease

The discs of a young child are plump, but the water content reduces with age until the discs are comparatively thin and hard. Bony growths called bone spurs may develop around the discs. In many cases, these age-related changes cause no problems, but some people experience a painful condition called degenerative disc disease. The most common symptom is back pain caused by holding the same position (either sitting or standing) for too long.

Ruptured disc

The term 'slipped disc' suggests that a disc has moved out of position; however, this is not correct. The discs are held firmly in place by various structures (including ligaments, muscles and the vertebrae themselves), so the term 'slipped disc' is misleading. Terms like 'ruptured', 'herniated' or 'prolapsed' describe the situation better. A crack in the tough outer shell of the disc allows the soft jelly-like contents to ooze out.

The most common site for a ruptured disc is the lower back, and chronic lower back ache is the usual symptom. As we get older, the risk of rupturing a disc declines because the discs dry out and the contents are less able to ooze through any cracks.

Sciatica

Sciatica is nerve pain from the sciatic nerve that runs from the spine into the buttock and down the back of the leg. A common cause of sciatica is a ruptured disc. The spinal cord has room to slide up and down inside the spinal column whenever the body moves. However, a bulging disc can protrude into the spinal column and press against the spinal cord, hampering its movement and causing pain.

Diagnosis

Diagnosis of disc problems generally involves:

- Taking a medical history (to determine risk factors and predisposing conditions)
- Physical examination.

Other investigations are generally reserved for preoperative assessment.

Treatment

The majority of disc problems will resolve regardless of treatment. Bed rest may be indicated for initial management of severe sciatica, but most people can keep active with some restrictions according to the level of pain.

Some common treatments include:

- Heat treatment
- Regular massage
- Exercise program designed to improve strength and flexibility
- Non-steroidal anti-inflammatory drugs
- Pain-killing medication
- Uncommonly, in severe cases of ruptured disc, an operation may be needed to trim the protruding bulge (laminectomy)
- Also uncommonly, in severe cases of degenerative disc disease, an operation may be needed to remove the disc and fuse together the two vertebrae on either side.

Self-help suggestions

Given time and the right conditions, a ruptured disc can heal itself. Ongoing maintenance can reduce the risk of disc problems in the future. Be guided by your doctor or health professional, but general suggestions include:

- Try not to sit still for long periods of time.
- Avoid lifting heavy objects.
- Remember that movements such as bending and twisting (especially at the same time) can increase pressure on your damaged disc.
- Work on increasing your abdominal strength. Strong stomach muscles help to support the back.
- Pay attention to posture while sitting, standing and walking.
- Flexibility exercises, performed regularly, can improve mobility and help reduce muscle tension and back pain.
- Include a gentle program of back-strengthening exercises.
- Yoga is recommended by some practitioners as an excellent form of strengthening and stretching for people with back problems.

Where to get help

- Your doctor
- Physiotherapist

Things to remember

- Intervertebral discs are spongy cushions found between the vertebrae of the spine.
- Common problems include degenerative disc disease and ruptured (or 'slipped') disc.
- Risk factors for disc problems include obesity, advancing age, lack of exercise and incorrect lifting techniques.
- Most disc problems settle without need for intervention.

This page has been produced in consultation with, and approved by:

Australian Rheumatology Association (Vic Branch)

Copyright © 1999/2009 State of Victoria. Reproduced from the Better Health Channel (www.betterhealth.vic.gov.au) at no cost with permission of the Victorian Minister for Health. Unauthorised reproduction and other uses comprised in the copyright are prohibited without permission.

- This Better Health Channel fact sheet has passed through a rigorous approval process. For the latest updates and more information visit www.betterhealth.vic.gov.au.