

Low Back Pain in Adults

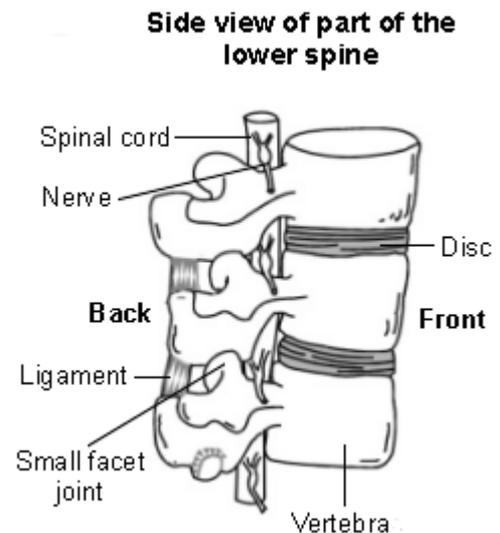
About 3 in 4 people have one or more bouts of back pain. Most bouts soon ease and are not due to serious back problems. In most cases the usual advice is to keep active, and do normal activities as much as possible. Painkillers are helpful until the pain eases. Chronic (persistent) pain develops in some cases, and further treatment may then be needed.

Understanding the back

The spine is made up of many bones called vertebrae. These are roughly circular and between each vertebra is a 'disc'. The discs are made of strong rubber-like tissue which allows the spine to be fairly flexible.

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

Strong ligaments attach to the vertebrae. These give extra support and strength to the spine. Various muscles also surround, and are attached to, various parts of the spine. (The muscles and most ligaments are not shown in the diagram for clarity.)



What are the types of low back pain?

Simple 'mechanical' back pain

This is the most common type. About 19 in 20 cases of acute (sudden onset) back pain are classed as 'simple back pain'. (It is sometimes called 'non-specific back pain'.) Simple low back pain means that the pain is not due to any underlying disease that can be found. The cause of most cases is thought to be a sprain or small tear to a ligament or muscle. This may be caused by heavy lifting, an awkward twisting movement, or bad posture. Minor problems with the discs between the vertebrae, or the small 'facet' joints between the vertebrae, may also cause pain. Often, the exact site and cause of the pain is not clear.

Simple does not mean that the pain is mild - the pain can range from mild to severe. Typically, the pain is in one area of the lower back, but sometimes it spreads to the buttocks or thighs. The pain is typically eased by lying down flat, and is often made worse if you move your back, cough, or sneeze.

Most bouts of acute (sudden onset) simple back pain ease quickly, usually within a week or so. In about 3 in 4 cases, the symptoms have either gone or have greatly eased within four weeks. In about 9 in 10 cases the symptoms have gone or have greatly eased within six weeks.

However, once the pain has gone it is common to have further bouts of pain from time to time in the future. Also, it is common to have minor pains 'on and off' for quite some time after an initial severe bout of pain. In a small number of cases the symptoms persist for several months or longer (chronic back pain).

Nerve root pain

This occurs in less than 1 in 20 cases. This means that a nerve coming from the spinal cord is irritated or pressed on (trapped). You feel pain along the course of the nerve. Therefore, you may feel pain down a leg to the calf or foot, and it is often worse than the pain in the back. A common

example is 'sciatica'. This is where a main nerve to the leg, the sciatic nerve, is irritated or pressed on.

Nerve root pain can range from mild to severe. Like with simple back pain, nerve root pain is often eased by lying down flat, and is often made worse if you move your back, cough, or sneeze. The irritation or pressure on the nerve may also cause pins and needles, numbness or weakness in part of a buttock or leg.

The cause of the irritation or trapped nerve may be due to inflammation caused by a ligament or muscle sprain. A 'slipped disc' is another well known cause. (A disc does not actually 'slip'. What happens is that the outer part of a disc can tear and part of the inner softer part of the disc bulges out. This can press on nearby structures such as a nerve. See separate leaflet called '*Prolapsed Disc*' for details.) Other less common conditions can press on a nerve to cause nerve root pain.

Less common causes

Arthritis (inflammation of the joints) of the spine sometimes causes back pain. Osteoarthritis is the common form of arthritis and usually occurs in older people. Ankylosing spondylitis is another form of arthritis which can occur in young adults and causes pain and stiffness in the lower back. Rheumatoid arthritis may affect the spine, but you are likely to have other joints affected too. (There are separate leaflets on each of these types of arthritis.)

Various uncommon bone disorders, tumours, infections, and pressure from structures near to the spine occasionally cause back pain. (Less than 1 in 100 cases of back pain.)

How can I tell what type of back pain I have?

Most cases of back pain that develop suddenly are due to simple back pain. Some people just 'get on with it' and treat it themselves - and indeed most get better quickly. However, if in doubt, see your doctor for a check-over and advice.

As a general guide, back pain with any of the following symptoms may indicate that the cause is not simple back pain, and may be a more serious problem. You should tell a doctor if they occur.

- Weakness of any muscles in a leg or foot.
- Numbness (lack of feeling) in part or parts of a buttock, leg or foot.
- Problems with your bladder or bowels such as loss of control (incontinence).
- Weight loss, or if you feel generally unwell.
- Pain that develops gradually, and slowly gets worse. (Most cases of simple back pain develop quite quickly.) In particular, if you have other conditions such as arthritis, AIDS, cancer, or take steroids.

Do I need any tests?

Your doctor will normally be able to diagnose simple back pain or nerve root pain from the description of the pain, and by examining you. In most cases, no tests are needed. For example, x-rays or scans of the back are not helpful and do not show anything abnormal if you have simple back pain. Also, if you have sudden onset nerve root pain, and symptoms begin to settle over the next few weeks, then the diagnosis is likely to be a 'slipped disc' and no tests are needed.

Tests such as x-rays or scans may be advised if nerve root pain persists or is severe, or if another serious cause of the pain is suspected.

What are the treatments for simple low back pain?

The following advice and treatment is commonly given for a sudden 'acute' bout of simple back pain. Most people recover quickly.

Exercise and keep going

Continue with normal activities as far as possible. This may not be possible at first if pain is severe. However, get back into normal activities as soon as you are able. As a rule, don't do anything which causes a lot of pain. However, you will have to accept some discomfort when you are trying to keep active. 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.

Sleep in the most naturally comfortable position. Some people find a firm mattress to be the most comfortable.

In the past, advice had been to rest until the pain eases. It is now known that this was wrong. You are more likely to develop chronic (persistent) back pain if you rest a lot rather than keep active.

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, it may prevent the pain from getting severe, and enable you to exercise and keep active.

- **Paracetamol** is often sufficient if you take it regularly at full strength. For an adult, this is 1000 mg (usually two 500 mg tablets), four times a day.
- **Anti-inflammatory painkillers.** Some people find that these work better than paracetamol. They include ibuprofen which you can buy at pharmacies or get on prescription. Other types such as diclofenac, naproxen, or tolfenamic need a prescription. Some people with asthma, high blood pressure, kidney failure, or heart failure may not be able to take anti-inflammatory painkillers.
- **A stronger painkiller** such as codeine is an option if anti-inflammatories do not suit or do not work well. Codeine is often taken in addition to paracetamol. Constipation is a common side-effect from codeine. 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.
- **A muscle relaxant** such as diazepam is sometimes prescribed for a few days if the back muscles become tense and make the pain worse.

Physical treatments

Some people visit a physiotherapist, chiropractor, or osteopath for manipulation and/or other physical treatments. It is debatable how well these treatments work. However, physical treatments may hasten recovery in some people, particularly if the onset of the pain was recent.

Other treatments

Treatment may vary, and the situation should be reviewed by a doctor if:

- the pain becomes worse.
- the pain persists beyond 4-6 weeks.
- symptoms change.

Other pain relieving techniques may be tried if the pain becomes chronic (persistent).

What are the treatments for back pain other than simple back pain?

Nerve root pain

In many cases, the treatment is similar to that described above for simple back pain. In many cases, nerve root pain eases and goes. For example, symptoms caused by a 'slipped disc' often ease and go over a few weeks. Physical treatments such as spinal manipulation are more likely to ease pain due to a slipped disc than for simple back pain. Some people with persistent back pain which is caused by prolapsed ('slipped') disc pressing on a nerve may benefit from an operation.

Other causes of back pain

Treatments depend on the underlying cause. For example, pain caused by types of arthritis may be treated by various anti-arthritis medicines.

Preventing simple back pain and a 'slipped disc'

The following may help to prevent back pain from occurring. In particular, after recovering from back pain, it is wise to try and prevent further bouts.

- **Exercise.** The aim is to get the supporting back muscles strong and supple. Swimming is a good exercise, but other regular back exercises will also help.
- **Posture.** Avoid standing or walking in a bent-forward position. Wherever possible, walk or stand with your shoulders and head slightly back. When you sit at a desk to work, make sure that the chair is at the right height for the desk. Your feet should be able to rest flat on the floor with your knees bent at 90 degrees. Sleeping on a bed with a firm mattress is thought to be best.
- **Lifting.** Do not bend your back when you lift. Bend at the knees, and keep your back straight. Do not lift with your back in an awkward twisting posture.
- **If you are overweight,** there is extra stress on the back, and losing weight will help.
- **Be 'back aware'.** It may not be heavy work that causes most bouts of back pain. More commonly it is due to bad posture or bad lifting techniques at work or home.

Further information and advice

Backcare (The National Back Pain Association)

16 Elmtree Road, Teddington, Middlesex, TW11 8ST
Tel: 0870 950 0275 Web: www.backcare.org.uk

The Back Book

A reliable source of information for people suffering from low back pain is The Back Book [Roland et al, 2002]. It is written by a team consisting of a GP, orthopaedic surgeon, physiotherapist, osteopath, and psychologist and provides comprehensive advice.

Roland, M.O et al. (2002) The back book. London: The Stationary Office.

© EMIS and PIP 2005 Updated: April 2005 Review Date: October 2006 CHIQ Accredited PRODIGY Validated

Comprehensive patient resources are available at www.patient.co.uk