What is in this booklet?

If you've got back pain, then you're probably reading this booklet because you want to get better and because you want to understand more about this problem. You are in good company because four out of five of us get back pain at some time. However, most bouts of back pain get better in a short time and simple painkillers are all that are needed. Getting back to normal activities is the best way to cope with back pain.

This booklet is aimed at people who have more persistent (long-lasting) back pain. It explains some of the causes of back pain and what can be done to help it and prevent it happening again. The technical words in italics are explained in more detail in the glossary at the end of the booklet.

What is the anatomy of the back?

The back is a complicated structure built around the bones of the spinal column (see Figure 1). The spinal column consists of 24 bones (vertebrae) sitting one on top of another. It sits on a large bony bowl—the pelvis—and is topped by the skull. The bones of the spine are connected one another by the discs at the front and by the facet joints at the back. The discs and facet joints allow the spinal column to bend and be flexible (see Figure 2).

Figure 1. The spinal column showing the names of its different sections

Figure 2. Detail of the spinal column (lumbar or lower back section)
The nerves of the spinal cord, which connect the brain to the rest of the body, run down the hollow centre of the spine. Where the nerves pass out from the spinal column on their way to the muscles of the arms and legs they are known as nerve roots (see Figure 2).

The bones of the back are also held together by tough bands called ligaments which, together with the spinal muscles, keep the back strong. The main muscles of the front and the back of the body are shown in Figures 3 & 4.

**Why do I get a bad back?**

Sprains of the back are a part of everyday life and the back is usually very good at taking these ‘knocks’. Often you can’t remember a sprain – an awkward movement may have caught your back ‘off guard’ and ‘pulled’ a muscle or sprained a ligament. Most cases of back pain are due to these sprains which usually heal themselves within a short time.

Sometimes back pain is due to a ‘slipped’ disc, in which part of a disc may press on a sensitive structure such as a nerve.
Other causes of back pain are rare—they include inflammation (see booklet ‘Ankylosing Spondylitis’), and bone problems such as a fracture, infection or tumour.

**Why does back pain become persistent?**

If your initial spell of back pain lasts a long time, then other events make it more likely to persist. For example, if the back muscles become weak, this reduces the ability of the spine to take further knocks. Weak back muscles also prevent you doing other activities and the body gets out of condition. This may affect your work, and your social life and personal relationships. Naturally, you may feel depressed and anxious in this situation and this could lead to further loss of confidence, frustration and anger, particularly if family members and the medical profession appear unhelpful or unsympathetic.

It is important to realise that you may still have problems and suffer from pain even after the original cause (sprain or disc) has long since cleared up. Remember that pain may at first cause you to lose your movement and strength. The longer this continues then the harder it will be for you to recover your movement and confidence. Remember also that any anxiety or depression you may feel while the pain lasts can prevent you getting back to normal. Your pain may therefore become persistent due to both physical and psychological factors. This can happen to anyone. Once it happens, both these factors can combine to create a vicious circle of pain.

**What can be done to help?**

Most people manage back pain by themselves and recover without any lasting problem. But people who have had one attack of back pain are likely to have others. To help protect yourself from further problems you need to keep your back flexible and strong. You also need to think about prevention, such as learning the correct way to lift heavy objects (see page 13).

If your pain has just come on and is severe it may help to take some painkillers (such as paracetamol or aspirin) and it will feel more comfortable to rest. But do not rest for more than a few days—at this point you should try and get back to normal activities and do some gentle exercises (see page 9, ‘What back exercises should I do?’).

If the pain is severe or not getting better after a few days, you should see a doctor, physiotherapist, chiropractor or osteopath who will examine you to make sure your back problem is straightforward. They may advise specific treatments. These may involve manipulation (see section, ‘Would manipulation help?’ on page 15) or exercises and education about back pain. They may also recommend some form of pain relief such as the use of hot packs, acupuncture or TENS. You may need an injection in the back area, particularly if you have sciatica.

**Will an operation be needed?**

Surgery is only used in a few cases (probably less than 1% of all cases of back pain). For example, a large piece of displaced disc can press on the nerves of the spinal cord and cause bladder problems (such as difficulty in passing or controlling urine). In this rare situation, you need urgent surgery to remove the disc fragment. For severe cases of sciatica, surgery may sometimes be needed to relieve the pressure on the nerve. In less severe disc disease, it is usually better to let nature ‘take its course’ and most will improve without surgery.