Back pain management programme

Diagnosing your pathology

Because there are so many different causes of pain in the spine it is often difficult for clinicians to give a precise diagnosis as to why you feel pain, and often it may be due to multiple reasons. However just because you may not have a precise diagnosis as to why you feel pain, it does not mean that you do not have a problem, it just means as yet we do not have the tools/scans/tests available to prove you feel pain. What we do know however is why it occurs and hence how we treat it.

The main cause – posture

Postural stress represents the largest single cause of back pain and subsequently back pain. For the majority of cases, other than trauma, it started at a very young age from poor posture, and unfortunately could have been prevented with the right education that was taken on board, for example at school, by parents, lectures at work etc.

So from a young age, continual misuse of our spine weakens it, stretching ligaments, putting undue stresses and strains through all the structures, which in turn causes increasing damage as we get older. This happens from standing badly, sitting badly, lifting badly, bending over desks while working, leaning over the hoover etc. Movements such as stooping, twisting and slouching, place considerable stresses on the spine, increasing the risk of injury. This happens throughout the day, every day.

The key to back care is minimising these undue strains and stresses by maintaining a good posture in every activity we do. This is very difficult for some people after years of bad habits, but is essential if we are to prevent further damage. Understanding why one must maintain a good posture is however the first and most important step to putting into practice good posture.

Which one of the above is the correct posture?
Spinal pathologies

Now that you have learnt a little bit about the structures of the spine it becomes easier to understand why so many things often do go wrong with the spine. All of the structures in the spine are capable of causing pain, the bones themselves, ligaments, discs, muscles and nerves. The information below explains each structure and lists some of the reasons as to why it may cause pain.

Facet joint

This is the joint formed by the two articular processes and is where a lot of movement occurs. It is thought that this joint is responsible for up to 95 percent of all spinal pain. The primary reason for pain at this joint is due to the ligaments being stretched and eventually some of the fibres tearing. This tearing can occur from prolonged stretching – as in poor postures, or from repeated movements to end of range of movement available, or from too heavy a load applied to the ligament.

Muscles

The next most common spinal pathology is muscle pain from the muscles being overused. This again could be caused by poor posture, where undue strain and stresses are put on particular muscles, or from repeated movements with a light load of the body, or from too heavy a force being applied to the muscle. Finally if a muscle goes into spasm, this in itself will cause pain.

Nerves

The nerves are capable of causing pain. This can be because another structure has impinged on the nerve. The structure that impinges on the nerve could be the muscle, such as when a muscle spasms. It could be a partially torn ligament tightening as it repairs, therefore bringing two bones closer together and impinging on a nerve. It could be as a result of a disc prolapse. It could be due to inflammation in the area as a result of damage to any structure, or infection. Finally it could be the result of a nerve itself becoming hypersensitive.

Bones

The bones are capable of hurting as in the case of arthritis where wear and tear occurs on the joint surface. Also if the bones are broken in an accident this will lead to pain.

Discs

Discs can cause pain, although as they are badly innervated they have very little feeling. Pain occurs as a result of the outer fibres of the disc cracking and the inner fluid seeping out into the joint space. The controversy over discs being responsible for back pain is partially due to the fact that a lot of research has shown that this cracking of the outer fibres of the disc (radicular tears) is a normal ageing process (wear and tear). Furthermore asymptomatic people (no pain or problems) on scan often show prolapsed discs.
Standing posture

From the side, a line should drop through the middle of the ear, shoulder, hip, knee and just in front of the outer ankle bone.

Avoid tucking your bottom in too much or ‘slouching’.

Feet taking weight evenly.

Aim for a middle position.

Avoid locking back knees

Avoid sticking your bottom out too much or ‘over-straightening’.
We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Other formats:

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Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

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