

## **Leg pain (sciatica)**

There are of course many causes of leg pain relating to local problems in the limb e.g. osteoarthritis, fractures, but when considering low back problems one has to ask about any symptoms that may be present in the lower limbs. Indeed, it may be that a patient has absolutely no symptoms in the back and only has leg pain.

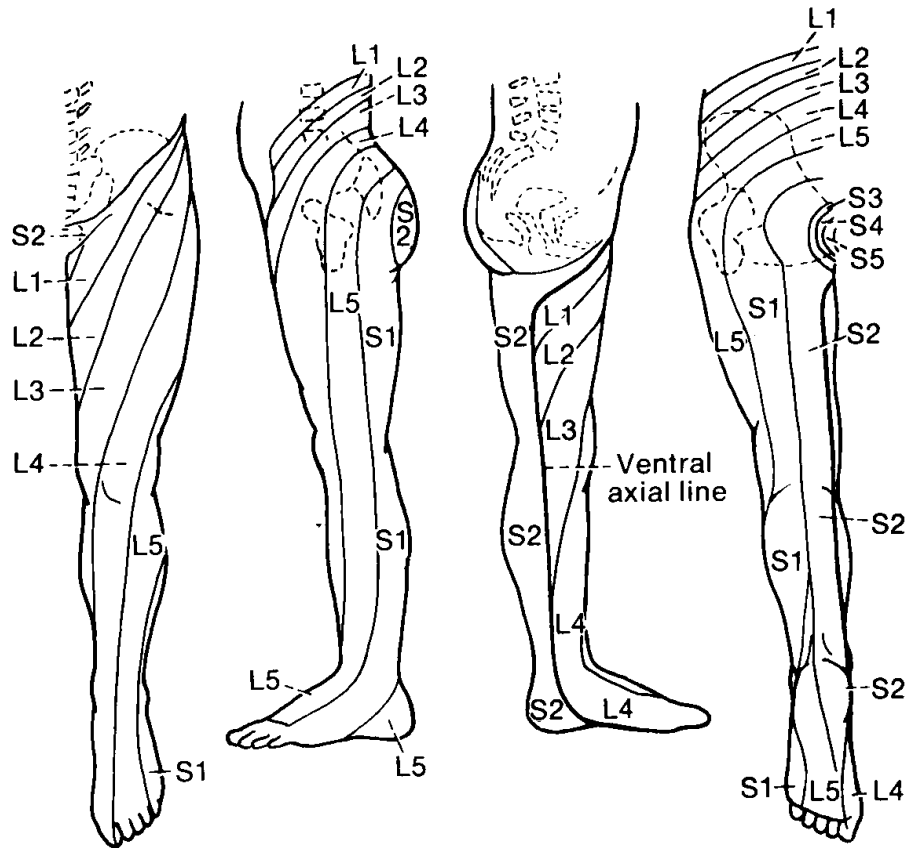
'Sciatica' is not really a good term as it is only a part of the sciatic nerve is compressed at its origin – and sometimes it is not part of the sciatic nerve at all, but the femoral nerve and so some people refer to 'femoralgia'.

The reasons lower limb pain can come from the back are twofold. Firstly, the nerve roots that go to the legs from the spine can be compressed causing pain in a particular distribution – known as a dermatome. In some patients this is in a 'classic pattern' but sometimes there is cross wiring and the presentation can be atypical. The second cause of lower limb pain due to a spine problem is referred pain. This is much less specific and often does not have a consistent pattern, although some patients (especially with pain at the top of the legs) describe a pain that is referred from the spine where there may be marked degenerative changes.

### **Assessment**

Following a full history and examination investigation may be indicated. MRI scanning is useful in ruling out serious pathology and also shows the state of the discs and facet joints in detail together with any evidence of neurological compression. However, the MRI scan is taken with the patient lying down and this is often the position in which pain is relieved and so things may be missed. This is why standing xrays are mandatory in many cases to evaluate the standing position of the spine and to see if there is any deformity. An MRI or xray in isolation is of only limited use. It is the combination of imaging together with a full history and examination that gives the clinician the information needed to give a diagnosis. Sometimes, if further invasive treatment is to be considered then diagnostic injections may be used. These either numb an area or provoke pain in an area to pin down the exact site of pain and to correlate the abnormality on an MRI scan with the pain. To numb the nerve leaving the spine is called a nerve root block and is particularly useful in patients where more than one nerve is compressed on the scan but we want to find out which one (or both!) are causing the symptoms.

The nerves leaving the spine are named after the vertebra that they are next to and the images below show the typical distribution of pain.



Common causes of nerve compression include a prolapsed disc, spinal stenosis, spinal deformity (scoliosis) and spondylolisthesis. Rarer causes include tumours, fractures and infections. More information can be found on these by clicking the links on the conditions page.

### Treatment

This of course depends on the diagnosis, any association with leg pain, the impact it has on the patient's life and what has been tried already. More information can be obtained on the treatment page help sheets.