

Spinal Nerve Root Compression

The nerve roots exit the spinal cord between the vertebrae, and these nerve roots can become compressed. Herniated discs that are compressing the spinal nerve roots can end up causing significant neurological pain, including sensory loss and motor loss. Nerve root compression resulting in distinct symptoms and signs can often be traced to the intervertebral level of the nerve root that is compressed. Patients often report a radiating pain, weakness and sensory loss.

How is Spinal Nerve Root Compression Diagnosed?

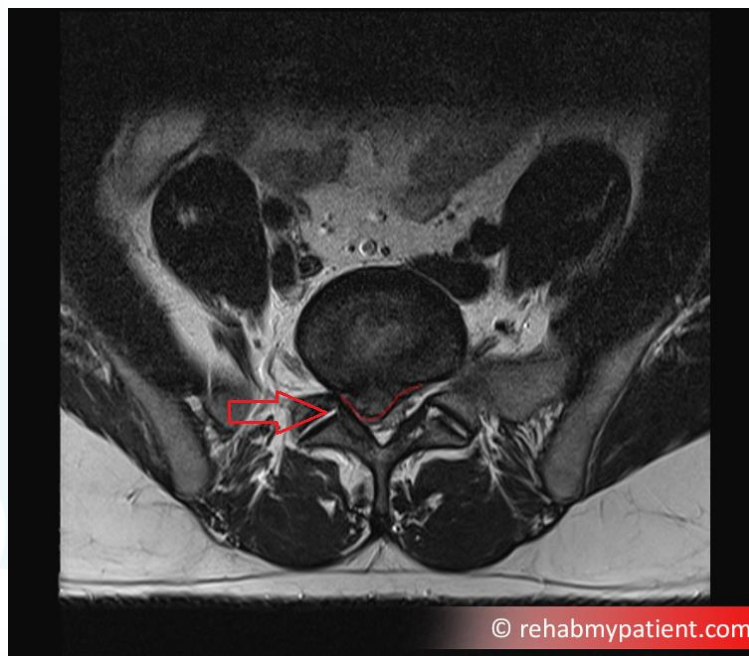
The nerve root compression is diagnosed by a doctor or manual therapist such as a chiropractor, osteopath or physiotherapist. A case history gives a good indication of a potential trapped nerve. When this is followed by a spinal examination, and a neurological examination, the diagnosis can be confirmed. A neurological examination may include a reduction or loss of reflexes, changes in sensation over parts of the legs, and positive nerve stretch tests.

Compression can range from mild to debilitating. Mild compression might not require any surgical treatment and can be treated with medication and other conservative treatments. Severe compression causing weakness may require surgical intervention to eliminate the death of the nerve cells and permanent loss of function within the motor nerves and sensory nerves downstream from the compression point.

The diagnosis is also commonly made by MRI. An MRI scan is a magnetic resonance imaging scan. Prices are affordable in most parts of the country. The MRI will show a trapped or compressed nerve.

Spinal Nerve Root Compression Anatomy

The spine is composed of a number of bodies referred to as vertebrae. These vertebrae protect and house the spinal cord. When two vertebrae join together, they form a hole called a foramen which is where the spinal nerve roots come out.



X-ray showing a disc prolapse with trapped nerve

When the disc slips backwards, it can compress the nerve root sending pain or sensory disturbance down the leg. In the lower back this is commonly known as sciatica, which is pain along the sciatic nerve. This is because the sciatic nerve root has become compressed.

Causes of Nerve Root Compression

1. As mentioned above, disc prolapse is the primary cause of nerve root compression. The disc tends to “slip” backwards and to the side, and this touches the nerve.
2. Slippage in the vertebra, known as a spondylolisthesis. The slippage of the vertebra compresses the nerve by narrowing the foramen.
3. Degenerative disc disease. When discs degenerate, they narrow and bulge out which can compress the nerve.
4. Spondylosis of the spine – this is wear and tear or degenerative changes to the spine. This causes osteophytes and thickening of the joints which can compress the nerve.
5. Spinal tumour – any growth or cyst can grow and can compress the nerve root.

How to Treat Spinal Nerve Root Compression:

1. Medication

Medications are often used to alleviate pain and improve your quality of life, while allowing the healing process to take place. You might need a single medication, or it might be a combination or multiple medications that can help to alleviate the pain and inflammation you are dealing with in the affected area.

2. Manual Therapy and Physiotherapy

If the majority of the pain has settled from your limbs, you might be able to undergo therapy to help the healing process along. Therapy will help to ease any stiffness and rehabilitate your back to full functionality.

3. Injection Therapy

Injection therapy is normally only used when the problem isn't settling correctly after a specified amount of time. Two different techniques are often used: nerve root canal injections or epidural injections. Both techniques are aimed at the same goal, which is to help alleviate pain and inflammation in the nerve that is causing the problem.

4. Surgery

Micro-discectomy is commonly performed to decompress the nerve by removing the disc material that has protruded.

Tips:

- Pay attention to your posture. Any position that provides your leg with pain relief is ideal.
- Try to stay as safely active as you can. Rest isn't going to speed the recovery process up.
- Return to work as quickly as you can. It is going to be painful whether you are working or not. Normal activities won't delay the healing process.
- Try to distract yourself from the pain. Do things you enjoy.
- Don't live in fear of the pain, it is possible to live a normal life and manage the condition with the right focus, assuming the nerve root pain is not too debilitating.