



NEUROSURGERY AND SPINE

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## SCIATICA, SI (SACROILIAC) JOINT DYSFUNCTION, AND PIRIFORMIS SYNDROME

Low back pain can arise from a variety of conditions, including simple muscle strain. Pain that results from a strain is often referred to as **Lumbago**.

Other conditions, including spinal stenosis, disc herniation, muscle compression and injuries to the bones in the spine can result in conditions which cause low back pain. Unlike muscle strains, these conditions may also cause leg weakness and tingling in the leg or buttocks.

### SCIATICA

**Sciatica** generally shows up as pain in the lower back, often more toward one hip. Sciatica can also cause numbness in part of the buttock or upper leg, or a sense of tingling. The symptoms can be temporary, after sitting in the wrong position or sitting with a large wallet in your back pocket or can occur all the time.

Sciatica is an irritation of a nerve root, as the result of another spinal condition. So the cause may vary and will be determined after examination and diagnostic testing.

Because it is an irritation of a nerve, sciatica can often be treated through stretching, hot and cold therapy, Physical Therapy, epidural injections, and anti-inflammatory or pain medications.

When appropriate, surgical treatment of the underlying problem may be recommended to stop the sciatic symptoms.



## SACROILIAC JOINT DYSFUNCTION

The sacroiliac joint lies next to the bottom of the spine where it connects the sacrum (the triangular bone at the bottom of the spine) with the pelvis.

The SI joint is:

- Small and very strong, reinforced by strong ligaments that surround it
- Does not have much motion
- Transmits all the forces of the upper body to the pelvis (hips) and legs
- Acts as a shock-absorbing structure

When the SI joint doesn't work properly, it causes pain because its' purpose is to provide stability and absorb shock. When the SI joint cause pain, it is likely from:

- **Too much movement.** When the SI joint becomes unstable or hypermobile, there will be pain felt in the lower back and/or hip. This pain may radiate to the groin.
- **Too little movement.** When the joint becomes rigid or fixed, it can cause pain on the affected side of the lower back which can radiate down that leg. This pain is similar to what may be seen in Sciatica.

Treatment for **SI Dysfunction** is usually conservative and works to try and restore normal motion in that specific joint. Conservative treatment includes ice/heat, rest, anti-inflammatory medications, chiropractic manipulation, bracing, PT, and SI joint injections. Rarely, treatment may require fusion of one or both of the sacroiliac joint to stop the abnormal motion.



## PIRIFORMIS SYNDROME

The piriformis is a muscle that runs behind the hip joint in the buttocks. This particular muscle, and the tendon of the same name work together in the same area as the sciatic nerve and in fact the piriformis tendon and the sciatic nerve cross. This syndrome causes “deep buttocks pain”.

**Piriformis Syndrome** is thought to occur when the piriformis tendon tethers the sciatic nerve causing irritation. When the piriformis tendon or piriformis muscle are too short, it can pinch the sciatic nerve, decreasing blood flow to the nerve and irritating the nerve because of pressure.

Conservative measures similar to those discussed for SI dysfunction are used for Piriformis Syndrome, with a major emphasis on stretching.