

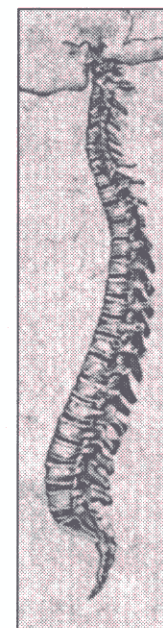
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Guide To
Spinal Disorders

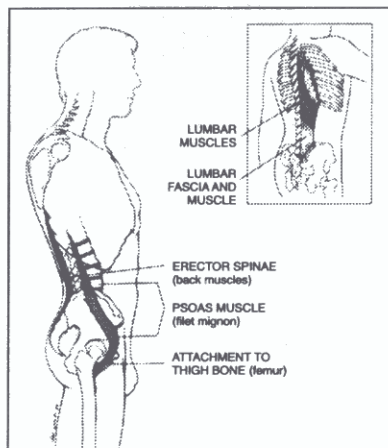
Sprain & Strain



Provided by the Joint Section on
Disorders of the Spine and Peripheral Nerve of
The American Association of Neurological Surgeons
and Congress of Neurological Surgeons.

DEFINITION

Lumbar, low back sprain/strain occurs with a sudden stressful injury to the low back region, causing stretching or tearing of the muscle/tendons/ligaments of the low back region. The muscles are large in this area and when a strain occurs, severe low back pain is the result. Most low back injuries are of this type. However, a sprain or strain may be misdiagnosed when an underlying disc injury has not yet made itself evident.



The erector spinae muscles (see muscles and fascia insert) are the firm, prominent muscles that you can feel in the lower part of your back, on either side of the midline. These muscles can be painful when they get tensed & cramped up in spasms. When strains are imposed on the psoas muscle, tremendous forces are exerted on the lumbar spine. These forces can be very irritating to the low back.

TYPICAL PAIN & FINDINGS

The low back pain from a sprain or muscle strain is in a broad area of the back and may be on either side, with consequent painful muscle spasms occurring with activity, or at night during sleep. The pain is worsened by activities and bed rest is an absolute necessity for a short period of time — one to three days.

This pain is typically limited to five to ten days, and does not involve either leg. There is no weakness in the legs. There is marked restriction and painful limitation in range of motion.

Patients are typically bent over and unable to straighten up or maintain a normal posture. Any particular activity is impossible, including sitting, standing, walking, driving, etc.

What diagnostic tests are used for evaluation?

No diagnostic testing is indicated, except in a case of unremitting sprain or strain which has been present for several weeks and is not improving as expected. At this point x-rays of the lumbar spine will be needed to rule out underlying spinal injury or disease. If symptoms persist, an MRI is indicated to diagnose underlying disc injury such as ruptured or degenerated disc, not evident or suspected at the initial examination.

TREATMENT

Treatment initially should involve nonsteroidal anti-inflammatory medications such as Nuprin, Motrin, Voltaren, Naprosyn, Tolectin, Lodine, Dolobid, Clinoril or Feldene. A rehabilitation program involving physical therapy is prescribed. Physical therapy with ultra-sound, heat and ice applied to the low back region allows the muscle spasms to relax. Exercises to stretch out painfully contracted muscles which are in spasm, followed by muscle strengthening exercises to build up the muscles to prevent further sprain and strain injuries completes a physical therapy program.

PROGNOSIS

The prognosis is excellent for a complete recovery of a lumbar sprain or strain injury. The muscle typically recovers nearly 100% with some minimal scar tissue, if there was tearing of the muscle. Recurrent episodes of sprain and strain injury to the lumbar spine may be prevented by a conscientious daily exercise program to stretch and strengthen the lumbar spine muscles. This will avoid muscles that are weak and chronically under-used or in a state of "chronic deconditioning."

RECOMMENDATIONS

We recommend the following:

An active strengthening and stretching program for the lumbar spine. This program should be done daily to build up strength and muscle mass, as well as maintain their normal length by a simultaneous stretching program. This will definitely decrease the frequency and severity of episodes of sprain and strain injuries when the back is subjected to an abnormal force.

If overweight, get down to your ideal body weight. Reducing one's weight decreases force on the spine. Weight which hangs out in front of the spine causes chronic spasms in the low back region. When the back muscles contract to hold the belly up, abnormal forces on the spine result in disc degeneration and arthritis in the spine.

Heat and ice treatment are indicated on an "as needed" basis at home to treat sudden flare-ups of low back pain, along with anti-inflammatory medications, as stated above. The cornerstone of treatment, however, is prevention, which is accomplished through an active exercise program.