

# LOW BACK SPRAIN/STRAIN

## ◆ What is it?

Low back sprain/strain is an injury to the ligaments and/or muscles and tendons of the lower back. The ligaments of the lower back and pelvis are important in maintaining the stability to the spinal column and thus the ability to stand upright while still being able to move, bend, and twist the back. The muscles of the low back require great force to be able to stand upright, and the forces are significantly increased when bending at the waist (for example when bending to pick something up from the ground).



## ◆ Signs and Symptoms of this Condition

- Severe pain in the back, occasionally with a feeling of a pop, snap, or tear, at the time of injury
- Tenderness and occasionally swelling at the injury site
- Muscle spasms in the back
- Loss of strength of the back muscles

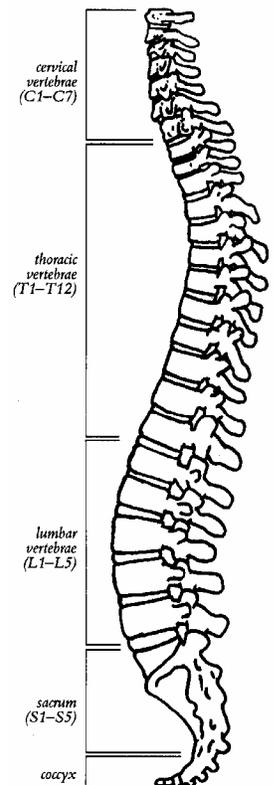
## ◆ Causes

- Can occur from one single violent force, stressful act, or stressful position that causes immediate pain.
- Can occur from repeated stress through improper posture, lifting, body mechanics during daily activities.

## ◆ What Can I do to prevent Lumbar Sprain/Strain?

- Maintain correct sitting and standing posture.
- Use proper mechanics when lifting (keep back straight, bend knees, and keep the object being lifted close to the body while using the legs to lift).
- Warm-up and stretch before physical activity and sports.
- Maintain appropriate conditioning:
  - Back and hamstring flexibility
  - Muscle strength and endurance
  - Cardiovascular fitness
  - Ideal body weight

## ◆ Prognosis



Spine (side view)

- This condition is usually responds well to appropriate treatment, although healing may be prolonged, depending on the severity of injury. Generally, symptoms resolve within 6-8 weeks in most individuals.

## ◆ Treatment

- Rest, Ice, and medications (anti-inflammatory medication such as aspirin, ibuprofen, etc and/or muscle relaxants prescribed by your physician if indicated) to relieve pain.
- After 48-72 hours you may change to using heat (hot shower on the low back, hot pack, etc.).
- Avoid prolonged bed rest (no more than 1-2 days at the most in severe acute injuries). Prolonged bed rest can lead to deconditioning and weakening of important muscle groups that support and stabilize your back.
- Gentle back motion/mobility exercises. **See Below** Get moving soon after injury to promote healing.
- Progress into back and abdominal strengthening exercises (**See Below**) as symptoms resolve. These should be performed long-term to help protect your back and reduce the chance of recurrent injuries.
- AVOID exercises such as sit-ups, leg lifts/flutter kicks, and running during your recovery.
- Perform low impact aerobic training to maintain cardiovascular fitness, promote healing, and reduce pain (bike, swim, elliptical trainer, ski machine, etc.). These should be performed with minimal to no pain.
- NOTE: If you are experiencing pain down your arm(s) you should see your physician.

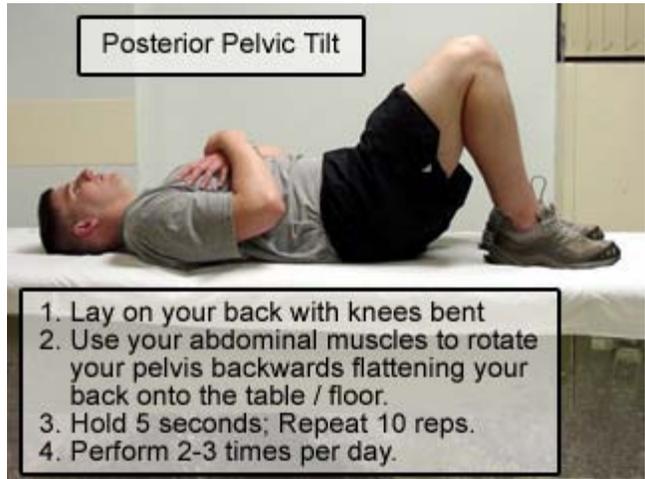


Double Knee to Chest Stretch



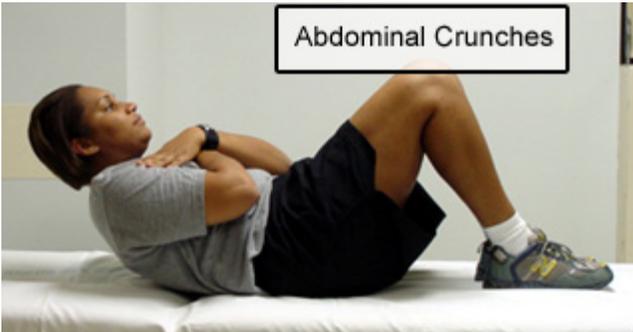
1. With arms crossed across your chest, raise your trunk upward until the shoulder blade leaves the surface.
2. Perform 30-50 reps once per day.

Posterior Pelvic Tilt



1. Lay on your back with knees bent
2. Use your abdominal muscles to rotate your pelvis backwards flattening your back onto the table / floor.
3. Hold 5 seconds; Repeat 10 reps.
4. Perform 2-3 times per day.

Abdominal Crunches



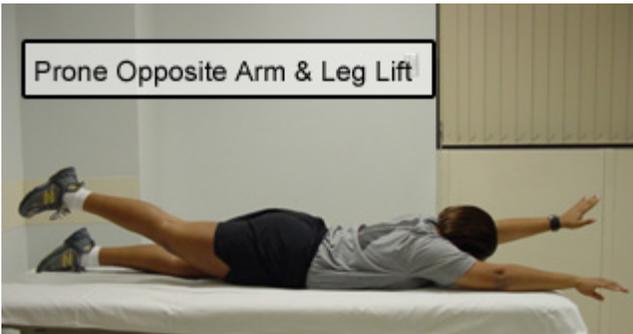
1. With arms crossed across your chest, raise your trunk upward until the shoulder blade leaves the surface.
2. Perform 30-50 reps once per day.

Side Lateral Support



1. Lay on side resting on your elbow.
2. Use abdominal muscles to lift hips/pelvis off the table.
3. Hold 5 seconds and repeat 5-10 reps.
4. Perform once per day.

Prone Opposite Arm & Leg Lift



1. Laying prone, lift the opposite arm and leg.
2. Hold 5 seconds.
3. Repeat 10 times, 2-3 reps.
4. Perform once per day.