

Back Exercises

How does Lumbar Strain occur?

Most low back pain is caused when a ligament or muscle holding a vertebra in its proper position is strained (why we call it *lumbar strain*). Vertebrae are bones that make up the spinal column through which the spinal cord passes. When these muscles or ligaments become weak, the spine loses its stability, resulting in pain. Because nerves reach all parts of the body from the spinal cord, back problems can lead to pain or weakness in almost any part of the body.

Low back pain can occur if your job involves lifting and carrying heavy objects, or if you spend a lot of time sitting or standing in one position or bending over. It can be caused by a fall or by unusually strenuous exercise. It can be brought on by the tension and stress that cause headaches in some people. It can even be brought on by violent sneezing or coughing.

The pain may be continuous or may occur only in certain positions. It may be aggravated by coughing, sneezing, bending, twisting, or straining during a bowel movement. The pain may occur in only one spot or may spread to other areas, most commonly down the buttocks and into the back of the thigh.

A low back strain typically does not produce pain past the knee into the calf or foot. Tingling or numbness in the calf or foot may indicate a herniated disk or pinched nerve.

Be sure to come back in for reassessment if:

- You have weakness in your leg, especially if you cannot lift your foot, because this may be a sign of nerve damage.
- You have new bowel or bladder problems as well as back pain that may be a sign of serious injury to your spinal cord.
- You have pain that gets worse despite treatment.

What can I do to help prevent low back pain?

You can reduce the strain on your back by doing the following:

- <Don't push with your arms when you move a heavy object; rather Turn around and push backwards so the strain is taken by your legs.
- <Whenever you sit, sit in a straight-backed chair and hold your spine against the back of the chair.
- <Bend your knees and hips and keep your back straight when you lift a heavy object.
- <Avoid lifting heavy objects higher than your waist.
- <Hold packages you carry close to your body, with your arms bent.
- <Use a footrest for one foot when you stand or sit in one spot for a long time. This keeps your back straight.
- <Bend your knees when you bend over.
- <Sit close to the pedals when you drive and use your seat belt and a hard backrest or pillow.
- <Lie on your side with your knees bent when you sleep or rest. It may help to put a pillow between your knees.
- <Put a pillow under your knees when you sleep on your back.
- <Raise the foot of the bed 8 inches to discourage sleeping on your stomach unless you have other problems that require that you keep your head elevated.

To **rest** your back, hold each of these positions for 5 minutes or longer:

- ~Lie on your back, bend your knees, and put pillows under your knees.
- ~Lie on your back, put a pillow under your neck, bend your knees to a 90-degree angle, and put your lower legs and feet on a chair.
- ~Lie on your back, bend your knees, and bring one knee up to your chest and hold it there. Repeat with the other knee, then bring both knees to your chest. When holding your knee to your chest, grab your thigh rather than your lower leg to avoid over flexing your knee.

Rehabilitation of the back may be done with the enclosed written exercises or with a trained physical therapist or chiropractor. Don't do the exercises until you can do them with a minimum of discomfort. If you feel worse afterwards, you have either started the exercises too soon after the injury or you need reevaluation.

Stretch 1. Single Knee to Chest _____ Pull one knee to your chest until a stretch is felt in your lower back. Hold 5 seconds, repeat 5 times on each side.



Stretch 2. Double Knee to Chest

Pull both knees to your chest while simultaneously flexing your head forward until you reach a comfortable stretch in a balled-up position. Do 8-12 repetitions this way holding each one for 8-10 seconds at a time. You should feel no pain with this exercise, as the stretch is designed to relieve tension on the back



Stretch 3. Supine Hamstring Stretch

Lying on back and supporting thigh behind knee, slowly straighten knee until a stretch is felt in the back of thigh. Hold 10 seconds, repeat 5 times on each side.

Stretch 4. Sitting Piriformis Stretch

You can do this sitting or lying down. If sitting, just lean forward! Hold each stretch for 30 seconds. Do 3 reps, 3-6 times a day.



Stretch 5. Pelvic Tilt

Lie on your back with both of your knees bent. Keeping your spine against the floor, squeeze your buttock muscles as hard as you can, pull your stomach muscles in, flatten the small of your back to the floor and hold for 5 seconds. Repeat 10 times.



Stretch 6. Cat Stretch

Get on your hands and knees. Arch your back upwards, contract your stomach muscles and let your head drop. Hold for 5 seconds. Follow this by raising your head and reversing the action, until you return to the starting position. Repeat 10 times.



Stretch 7. Hip Roll

Lie on your back. Put both arms out for support and raise your knees to your chest. With knees together, gently roll them from side to side, keeping your shoulders on the floor. Roll 10-20 times.



Stretch 8. Backward Leg Raises

Lie flat on your stomach, resting your head on folded arms. Keeping your hips flat on the floor, slowly raise one leg from the hip until your foot is 6 inches above the floor. Repeat 10 times each leg.



Stretch 9. Single Leg Raises

Lie on your back, knees bent, and place both hands under the lower part of your back or behind your head. Press your back into your hands or into the floor, then straighten one leg, and slowly raise it to the height of your bent knee. Hold in that position for 5 seconds, and then slowly lower the leg to the floor. Repeat 5-10 times with your back flush against the floor or your hands.



Stretch 10. Diagonal Reach

Start on your hands and knees. Slowly reach your right arm out in front of you; At the same time, reach your left leg straight out behind you. Stretch and hold for 5 seconds. Then return to your original position and stretch your left arm and right leg. Repeat 10 times.