

Effective Exercises and Stretches to Help Heal Low Back Pain

June 24, 2016 | 69,654 views

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Low back pain is the most commonly reported type of pain and a leading cause of disability in America. It's one of the most common causes for missed work and for visits to the doctor's office, outnumbered only by upper respiratory illness.

Estimates suggest approximately 80 percent of adults will suffer from low back pain in their lifetime.³

The cost of low back pain is high, both in monetary value and in pain control. And, it is estimated that a minimum of \$50 billion is spent each year in direct healthcare costs to treat low back pain.⁴

Unfortunately, many people believe that back pain will resolve spontaneously without treatment. Instead, statistics from 2003 demonstrated that 62 percent of patients with back pain continue to report pain 12 months after the initial incident.

Chronic back pain is also a major driver of painkiller addiction, which can lead to a lethal overdose.

There is a better way. How you use your body is directly related to how your body responds, including pain. Although low back pain is challenging and may be debilitating, you have options for both treatment and prevention.

What Increases Your Risk of Low Back Pain

✓ Age

You may experience degenerative changes to your spine as you age. In some cases, these changes are affected by the way you use your back and the strength of the muscles supporting your spine.

People between the ages of 30 and 60 are more likely to have spinal disc-related problems and people over 60 are more likely to suffer from osteoarthritic pain.⁶

✓ **Weight**

Excess weight places additional burden on your joints, including your lower back, and inflammatory factors associated with increased weight may also contribute to pain.⁷

Your spine is designed to distribute your body weight load. An excess may lead to structural changes and damage. Your lower back, or lumbar spine, is the most vulnerable to the effects of obesity.⁸

✓ **Sedentary Lifestyle**

A lack of exercise does more than affect your risk of heart attack or stroke. It also increases stiffness and weakens muscles needed to support your back. Regular stretching and strengthening exercises may reduce your back pain or prevent you from experiencing low back pain.⁹

✓ **Sitting and Standing Posture**

Your posture during sitting may change the normal curvature of the lower back, increasing pressure on spinal discs and the ischium, both associated with lower back pain.¹⁰ Poor posture during both sitting and standing may predispose you to lower back pain as it may cause increased stress on your back.¹¹

✓ **Smoking**

Smoking reduces the amount of oxygen delivered to your body tissue. This adversely affects your spinal discs and increases your risk of back pain. Research demonstrates smokers have a 1.5 to 2.5 times greater risk of developing back pain over nonsmokers.¹²

✓ **Pregnancy**

Pregnant women are more predisposed to low back pain, with the added weight of the baby changing the center of gravity and increasing the lower back curvature.¹³

✓ **Occupational and Sports Hazards**

Repetitive lifting, bending and twisting or long hours of standing and sitting may increase your risk of low back pain from overuse or from poor functional posture, increasing the weight and stress on your lower back.^{14,15}

✓ **Medical and Family History**

Other factors that may play a role in your low back pain include a past medical history of osteoarthritis, disc degeneration, spondylolysis, osteoporosis and discogenic disease. A family history of back pain may also increase your risk.¹⁶

An Ounce of Prevention Is Worth a Pound of Cure

Many of these risk factors may respond to a program of stretches and strengthening exercises to change the way you use your back and improve the neuromuscular

connections. However, like most health conditions, it is far easier to prevent the problem than it is to fix it.

Your lower back does not function independently of the rest of your core. This means you need strong abdominal muscles to support your lower back, and flexible muscles to reduce the potential for strains and sprains.

The healthier your back and musculature are, the better your chances of preventing a problem or recovering quickly.

Your lower back responds to interconnections between your shoulders and your pelvis, even down to your quadriceps and hamstring muscles. These large muscles in your upper legs are connected to your pelvis, which in turn is connected to your lower back.

Tight hamstrings or quadriceps can pull your pelvis out of alignment and increase the risk of lower back pain.

A systematic review and meta-analysis demonstrated a successful prevention program, or one that kept someone from reporting a bout of low back pain for one or more years, rested almost exclusively on exercise programs.¹⁷ Participants did not find relief from back belts or orthotics.

Both of these factors tended to increase muscle weakness and lead to further pain. Participants who exercised regularly, using either strength training or a combination of strength training and aerobic exercise, were considerably less likely to experience further back pain within the year.

Effective Stretches and Exercises May Help Heal Your Lower Back Pain

Start using these stretches and strengthening exercises slowly. If you experience pain, back off the intensity of your program. It is important to have proper body alignment during the exercises in order to stretch and strengthen the right muscles.

You won't need to dedicate hours each day to improve your back pain. But, it is important that you are consistent, even after you experience relief from the pain and discomfort. In the video above, Dr. Eric Goodman and I demonstrate a number of Foundation Training exercises that are specifically designed to address back pain and related issues. Below, you'll also find a list of standard stretches that can be very helpful.

✓ **Hamstring Stretch**

Although a standing stretch is the most common, it also places more stress on your lower back. Instead, use a seated or wall stretch. A seated stretch begins with you seated in a firm chair. Extend one leg and reach down slowly to touch your toe.

Change legs and stretch the other side. A wall stretch is done lying on your back with your buttocks up against a wall or high-back chair. Place the foot against the wall or chair and make the knee as straight as you can.¹⁸ As you progress you'll be able to get closer to your toes in the seated position or your knee straighter while on the floor. It is important to stretch gradually and not push so hard you strain the muscle.

✓ **Gluteal Stretch**

Your gluteal muscles are interconnected with your lower back. Stretch and relax these muscles by lying on your back with both knees bent and your lower back flattened to the floor. Draw one knee to your chest, while you keep the other foot on the floor. Hold for 20 seconds and repeat with your other leg. Stretch both legs twice, once daily.¹⁹

✓ **Piriformis Stretch**

The piriformis muscle is small and located deep in your buttocks. When it spasms it can cause pain your buttocks and irritate the sciatic nerve, triggering pain down your leg. The muscle stabilizes the hip joint, lifting and rotating the thigh away from the body. It is involved in almost every movement of your legs and hips.²⁰

Lie on your back with both feet flat to the floor and knees bent. Place your right ankle on your left knee. Grab your left thigh and pull the leg toward your chest. Hold for 15 to 20 seconds. Release and repeat on the other side.²¹

✓ **Hip Flexor Stretch**

Your hip flexors are a group of muscles that connect your pelvis, leg and abdomen. These are some of the most powerful muscles in your body, responsible for flexing your hip and raising your leg. Sitting for long periods of time and competitive swimming, are two activities causing the flexor muscles to tighten and affect your lower back.^{22,23}

A kneeling hip flexor stretch starts with you on your knees on the floor. Holding on to a chair or other solid object, place one leg behind you and lean in slightly to the chair.²⁴ The glute bridge stretch does more than stretch your hip flexors, it also works your gluteal muscles and abs.

Lying on your back with your knees bent and feet flat on the floor hip-width apart, flatten your back to the floor and exhale while raising your hips off the floor. Tighten your glutes when you get to the top. Inhale and return to the starting position.²⁵

✓ **Quadriceps Stretch**

If you have tight quadriceps, they will affect the tilt of your pelvis and therefore your lower back. Common stretches require you to bend your knee until your heel touches your buttocks. However, this stretch places increased stress on your knee joint. Instead, you can stretch your quadriceps without bending your knee.

Standing next to a chair, bed or table, extend your right leg behind you. Hold on to a chair for stability and prevent falling. Keeping your body upright, align your left hip over your left heel maintaining left hip and foot in a forward position. Tighten your glutes and imagine your right leg extending through your right hip. You should feel light tension in both your hip and quads. Repeat on the other leg.^{.26}

✓ **Lower Back Stretch**

The goal is to stretch and relax your lower back muscles without adding stress or pressure to the area. Lie on your back with your buttocks as close to a wall as possible. Raise your legs straight up the wall and scoot in closer to the wall. Press your lower back into the floor and relax.^{.27}

✓ **Planking**

Strong abdominal and back muscles will help protect your lower back and improve your ability to stand and sit with correct posture. Planks will strengthen your shoulders, abs, back, glutes and the large muscles in your legs.

Lie on your stomach. Rise up on your elbows, holding your elbows directly below your shoulders. Pull your body up on your toes and hold a position similar to doing a push-up, except you are on your elbows. Work up to holding for 3 minutes. For a program to help you achieve this goal, see my article "30-Day Plank Challenge."

✓ **Diaphragmatic Breathing**

Not all back pain originates from the same source. However, keeping your hips, pelvis, rib cage and core muscles in alignment helps you to use your body correctly and reduce the potential for further back pain. Diaphragmatic breathing techniques are a good way to stabilize your back and naturally add traction to your spine.

Lie on your back with your heels on a chair. Align your position so there is a 90-degree angle at your hips and your knees. This might require you to experiment with different chairs to find one at the right height for you. Place a pillow between your legs.

Without using your lower back, activate your glutes and your abdominal muscles to raise your buttocks off the floor just a few inches. In this bridge position, inhale deeply through your nose, feeling your lower ribs rotate outward to fill your lungs. Exhale completely using your core muscles to internally rotate your ribs. Inhale for a count of five, exhale for a count of seven and pause for a count of three. Do this five times, maintaining the bridge position, then rest. Repeat one more time.^{.28}

✓ **Foam Rolling Hamstrings and Quadriceps**

Foam rolling your hamstrings and quadriceps muscles helps the muscles to relax, give you a deep tissue massage and speed healing. These muscles contribute to your lower back pain. Roll over a foam roller just one to three times each day for the hamstrings and quadriceps, after doing your strengthening and stretching exercises. You can read more about how to avoid common mistakes made using the foam roller in my previous article, "5 Foam Rolling Mistakes to Avoid."