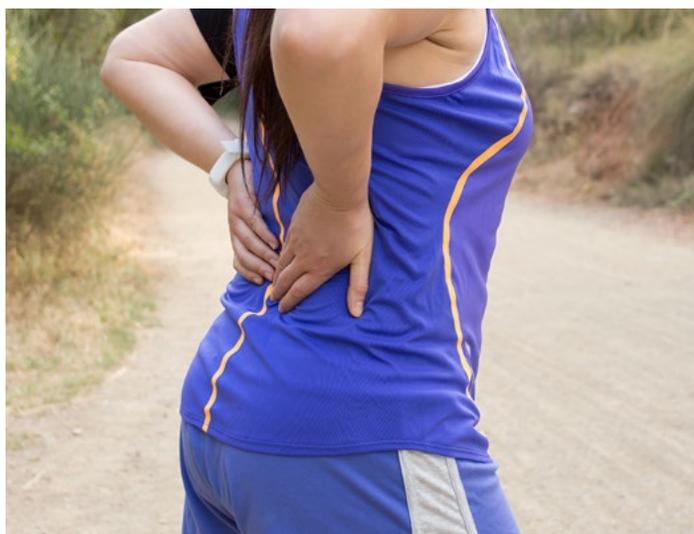


Exercising with Lower Back Pain



Lower back pain (LBP) is one of the most common medical complaints in the world. It is the second most common complaint in doctors' offices.



Manuel Fabo Ortega/iStock/Thinkstock

At any one time, 1.2 million adults in the United States are disabled from LBP. About 25 percent have had LBP in the past three months. More than 80 percent of Americans have had LBP at least once.

Though there are many causes of LBP, most are mechanical. That is, they result from overloading or injuring the back. LBP can be acute (less than three months) and chronic (more than three months). For both, exercise is a key part of the treatment. Basically, for both types you should avoid any movement or activity that causes symptoms or pain. Try to return to normal levels of activity as soon as feasible. Avoid bed rest except during times of severe pain.

For severe acute LBP, treat with pain relief medicines and ice packs. Modify activities to reduce stress to the lower back, especially at first. Also, emphasize low-intensity activities. Over time, increase the intensity and duration of activity until you return to normal. For chronic and recurring LBP, exercise and normal activities are strongly recommended.

Many people with LBP have depression, anxiety, and insomnia. They also have low levels of fitness. Some see pain as a sign of injury. As a result, they stop being active. They avoid any kind of exertion. They don't realize it is safe to remain active. In fact,

being active improves LBP over the long-term. The key is to make small changes in how they do things.

Getting Started

- Talk with your health care provider before you start an exercise program. Ask for specific program guidelines.
- Take all medicines suggested by your doctor.
- Which type of exercise should you do? There is no consensus on what is best. However, experts recommend that people with LBP get the same minimal levels of exercise intensity and total amount of activity as the general public.
- Choose low-impact activities you enjoy and will do regularly. Try walking or swimming.
- Start by exercising on your own. Begin walking or another activity you can add to your daily routine.
- Invite others to join you. Exercising together is more fun. It also increases the chance you will continue. Dogs make great walking partners!
- Look for programs in your community. You could also contact an appropriately credentialed exercise professional* to help you. All you really need, though, is a good pair of shoes to get started walking.
- Use a pedometer or other device to track your progress. Slowly work toward a goal, like maybe 10,000 steps per day.

Aerobic Exercise Programs

The American College of Sports Medicine and the Centers for Disease Control and Prevention recommend at least 150 minutes per week of moderate-intensity aerobic activity, 75 minutes of vigorous aerobic activity, or a combination of both for adults. They also suggest muscle strengthening twice a week. Follow the FITT principle to design and implement a safe, effective, and enjoyable program. F = frequency, I = intensity, T = time, and T = type.

- Frequency – Be active on most days of the week but at least three to four days.
- Intensity – Exercise at a moderate level with activities that do not cause pain. Use the “talk test” to help you monitor. For example, a moderate pace will slightly increase your heart rate and breathing, but you should still be able to carry on a conversation. As you walk faster, you will begin to breathe

faster and have difficulty talking. At that point, you've achieved moderate intensity or "somewhat hard." Vigorous exercise causes a large rise in heart rate and breathing. At this intensity, it would become hard to talk. Most people would rate this as "hard to very hard."

- Time – Exercise 30-60 minutes per day. You can do it all at once or break it up into a few sessions of at least 10 minutes each.
- Type – Do rhythmic, weight-bearing, and low-impact exercises with large muscle groups. Do activities you enjoy and will do regularly in your new, more active lifestyle. Add variety depending on the day or the season to keep the program more enjoyable.

Aerobic Exercise Cautions

- If you have been inactive for a long time, start with shorter sessions (10 to 15 minutes). Add five minutes to each session, increasing every two to four weeks. Build up to being active at least 30 minutes per day on most days of the week.
- Avoid high-impact activities, such as running.
- You can start low-impact aerobic activities immediately after the onset of LBP. However, delay exercises that target the trunk region until at least two weeks after the first sign of LBP.
- Never exercise to the point of pain. If something hurts, don't do it.

Resistance Exercise Programs

Moderate or vigorous intensity resistance training is important to treat and prevent LBP. Resistance training helps you to function better. It also promotes good health. You should follow the FITT principle when creating a resistance exercise program.

- Frequency – Do strength training at least two to three days per week. Plan a day of rest between sessions.
- Intensity – Exercise at a moderate to vigorous level (8 to 12 repetitions). If you can lift a weight 10 to 15 times, you've achieved moderate intensity. You get to high intensity when you can lift a weight only 8 to 10 times. Remember, you aren't training to be a weight lifter. Your goal is to improve your strength and muscle endurance so your daily activities will be less stressful.
- Time – Do two sets of repetitions of all major muscle groups. Focus on the core trunk muscles.

- Type – Strong abdominal, back, and leg muscles are key to maintain good posture and body mechanics. Once the acute pain subsides, begin doing light strength-training exercises to help your posture. Use either free weights or a machine. There is no difference between the two methods. Don't belong to a gym or health club? No problem. You can do the same exercises at home using lighter weights, resistance bands, or your body weight as the resistance. Try push-ups or sit-ups.

Resistance Exercise Cautions

- Avoid heavy lifting, especially with the trunk muscles.
- Don't hold your breath when you lift. This can cause large changes in blood pressure. That change increases the risk of passing out or developing abnormal heart rhythms. This is especially so if you also have high blood pressure.
- If you have joint problems or other health problems, do only one set for all major muscle groups. Start with 10 to 15 repetitions. Build up to 15 to 20 repetitions before you add another set.

Other Types of Exercise

- Yoga and tai chi may help relieve or prevent lower back pain. They increase flexibility and reduce tension. However, be careful not to do any poses that could worsen your LBP.
- Flexibility exercises for the trunk, hips, and legs will enhance your program. Each day you do aerobic or strength activities, take an extra 10 minutes to stretch the major muscle and tendon groups. Each stretch should last 10 to 30 seconds and be repeated 3 to 4 times.

Design your exercise program for the most benefit and fewest risks to your health or physical condition. Contact an appropriately credentialed exercise professional* to work with you and your doctor. They can help you establish realistic goals. Together, you can design a safe, effective, and enjoyable program to meet your needs and goals.

For more information, visit www.exerciseismedicine.org or e-mail eim@acsm.org.

Pescatello, L., Arena, R., Riebe, D., & Thompson, P. (2013). General Principles of Exercise Prescription. In ACSM's Guidelines for Exercise Testing and Prescription (9th ed., pp. 166-177). Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.

*A listing of exercise professionals can be found at www.usreps.org and EIM Credentialed professionals can be found through the ACSM ProFinder (<http://bit.ly/1Mq6ldN>).

Referral Instructions