



# Low Back Pain: Management and Prevention

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Each condition and patient is unique. The content of *Low Back Pain: Management and Prevention* is not intended to be a substitute for a visit to a physical therapist or other health care professional. If you experience signs or symptoms of injury or illness, you should seek the advice of a health care professional.

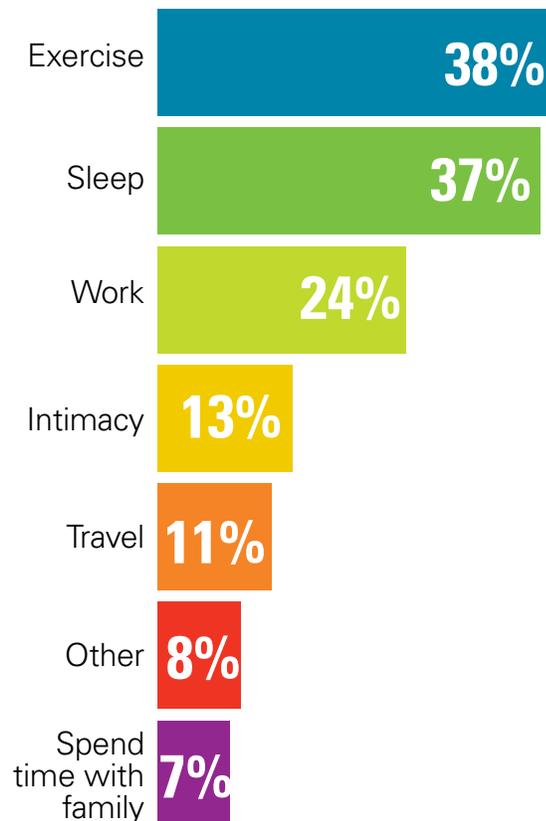
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## Low Back Pain (LBP): A Common Problem

If you have ever experienced low back pain (LBP), you are certainly not alone. According to the 2012 American Physical Therapy Association (APTA) Low Back Pain Survey, 61% of Americans said they have experienced low back pain, and of those, 69% felt it has affected their daily lives. The good news is that most cases of LBP are not serious and will respond well to conservative, proven treatments, such as physical therapy.

*Low Back Pain: Management and Prevention* is designed to help you understand the causes of low back pain and give you the strategies you need to manage it (and even help prevent it). It will also show you how a physical therapist (PT) can help you stay healthy, in shape, free of pain, and in many cases, avoid painful surgery and the side effects of prescription medication.

### How respondents to the APTA Low Back Pain survey were affected by the condition:



## Types of Low Back Pain

There are 3 different types of low back pain, *acute*, *recurrent*, and *chronic*. Acute LBP comes on suddenly and typically lasts less than 3 months. Recurrent low back pain occurs with frequent episodes of acute LBP. Chronic LBP typically lasts longer than 3 months.

## Causes of Low Back Pain

Low back pain can be caused by a number of things, such as overuse, strain, or injury. Most of the time LBP is not related to a disease or injury. Rather, it is caused by the inability of your back's muscles, ligaments, and joints to work as they should. More often than not, the cause of LBP just isn't clear.

Much less frequently, LBP may be the result of a specific health condition, such as degenerative disk disease (a flattening and stiffening of the disks between the vertebrae), lumbar spinal stenosis (a narrowing within the vertebrae of the spinal column, resulting in too much pressure on the spinal cord), or osteoporosis (a thinning of bone tissue and loss of bone density over time).

Rare, but serious LBP symptoms include incontinence or difficulty urinating, poor balance, numbness, or weakness in the legs. See a physician immediately if you experience any of these symptoms. It is worth repeating, however, that most LBP is not serious and may be resolved or managed effectively by using a conservative approach, such as physical therapy.

According to APTA's 2012 LBP Survey, women take medication for low back pain more often than men. To relieve pain, 3 out of 4 women (75%) with LBP take over-the-counter or prescription medications as compared with 67% of men.



**75%**  
of women

**67%**  
of men

## A Look at the Back

Your spine is what gives your body stability and mobility. There are 33 bony vertebrae, stacked on top of each other in a gentle 's' curve. Between each vertebra are spongy disks of cartilage that cushion the vertebrae. Ligaments surround the spine, which is supported by muscle. Each vertebra aligns to contain the spinal cord. Major nerves pass through spaces in the vertebrae to connect the spinal cord with other parts of the body.

The area most commonly affected by pain and injury is the lower back (lumbar region). Your lumbar spine is at work when you bend, stoop, sit, and lift. Improper bending, stooping, sitting, and lifting can cause neck, shoulder, and back pain and possibly even more serious injuries. Learning the proper way to perform these activities will help you minimize the risk of pain and injury.

Spinal fusion surgeries are on the rise in the United States, having increased by 77% between 1996 and 2011. Nearly 20% of patients undergoing a spinal fusion surgery will have another spine operation within 11 years.

**77%**  
Increase in  
spinal fusion  
surgery



disks

vertebra

lumbar region

## Preventing Low Back Pain

Maintaining a regular physical fitness regimen can be very helpful in preventing injury to your lower back. Participating in regular strengthening exercises can also help the strength and flexibility in your back, core, and leg muscles. If you must sit for long periods, remember to take frequent breaks every 20 minutes or so, to stand up and stretch. Also, using proper body mechanics while at work, play, or performing your daily activities will help protect your lower back.

Below are a few tips from physical therapists on proper body mechanics for daily living:

### Lifting



When lifting a heavy object, position your body directly in front of it to lift, and then carry it close to your body. Bend your knees so your legs, not your back, bear the weight. When carrying the item, turn your feet instead of twisting your back. For further information, please see our “[Lifting](#)” tips at [www.moveforwardpt.com](http://www.moveforwardpt.com).

### Wearing Backpacks



Low back pain doesn't just affect adults. Children can be affected by the backpacks they wear to school. To help children maintain proper form, physical therapists advise that backpack contents should be limited to 10 to 15% of the child's body weight. Wearing both straps will keep weight distributed properly. The backpack should rest evenly in the middle of the back—it should not extend below the lower back. Organize the contents by placing the heavier items closest to the back. Watch our YouTube video [▶](#) on backpack safety for kids and see our “[Backpack Safety](#)” tips at [www.moveforwardpt.com](http://www.moveforwardpt.com).

### Shoveling



Whether you're moving snow or mulch, shoveling is typically a repetitive action. Use a shovel with a shaft that is not too short (causing you to bend more to lift) or too long (making the weight at the end heavier). Keep your back straight while lifting and avoid twisting the spine while shoveling. Stepping in the direction you're moving instead of bending the back, can help to avoid next-day fatigue. Finally, take frequent breaks to stand straight and walk. Watch our YouTube video [▶](#) on snow shoveling and see our “[Snow Shoveling](#)” tips at [www.moveforwardpt.com](http://www.moveforwardpt.com).

Being fit can reduce your risk of low back pain. The US Department of Health and Human Services has developed the *Physical Activity Guidelines for Americans*. They recommend adults exercise with moderate intensity for 150 minutes each week, or exercise vigorously for 75 minutes each week.

 **150 min**  
moderate exercise

 **75 min**  
vigorous exercise



### Gardening

When gardening, support your back by bending at the knees to avoid straining. Keep one foot on the ground while kneeling. If you must kneel, use knee pads to absorb some of the pressure. Use a wheelbarrow to move heavy items and change positions frequently to reduce stiffness. For further information, please see our “[Gardening](#)” tips at [www.moveforwardpt.com](http://www.moveforwardpt.com).



### At the Office

When at your workstation, use an upright chair that has good back or lumbar support. The monitor should be positioned so your head and shoulders are relaxed and you don't have to crane your neck. Also, keep your mouse close to your body. Remember to do easy exercises at your desk, such as backward shoulder rolls, and get up frequently to stand straight and/or walk. Watch our YouTube video [\[video icon\]](#) series on office ergonomics and see our “[Workplace Wellness](#)” tips at [www.moveforwardpt.com](http://www.moveforwardpt.com).



### Traveling

During long drives, stop every hour or so to stand up and move around. You can also place a rolled up towel behind your back at approximately waist level to provide lumbar support while driving. Watch our YouTube videos [\[video icon\]](#) on air travel and packing.

Being a new mom can be particularly challenging on your lower back. Physical therapists advise holding your child close to your body and balanced in the center of your body. Avoid holding him or her in one arm and balanced on one hip. When using a child carrier, be sure to keep your back straight and your shoulders back to avoid straining your back and neck.

Watch our YouTube videos [\[video icon\]](#) on proper lifting for new moms and preventing low back pain during pregnancy and see [Posture Tips for Moms](#) on [www.moveforwardpt.com](http://www.moveforwardpt.com).



## How a Physical Therapist Can Help

Low back pain doesn't have to affect your daily life. In fact, people who see a physical therapist for their LBP are less likely to miss out on the things they need to do in life. A physical therapist's goal is to help you reduce or control pain and return you to normal activity.

If you are having LBP, stay active, and do as much of your normal routine as possible. Bed rest for longer than a day can actually slow down your recovery. If your pain lasts more than a few days or gets worse, schedule an appointment to see your physical therapist.

After speaking with you and conducting an initial examination, your physical therapist will identify the factors that have contributed to your specific back problem and design an individualized treatment plan, which may include:

- ◆ Manual therapy, including spinal manipulation, to improve the mobility of joints and soft tissues
- ◆ Specific strengthening and flexibility exercises
- ◆ Education about how you can take better care of your back
- ◆ Training for proper lifting, bending, and sitting, performing tasks both at work and in the home, and proper sleeping positions
- ◆ Assistance in creating a safe and effective physical activity program to improve your overall health

Watch our YouTube video  on back pain tips and see "[Low Back Pain](#)" on [www.moveforwardpt.com](http://www.moveforwardpt.com). Your physical therapist will work collaboratively with other health care professionals to ensure your treatment is comprehensive and remain informed of your medical history. Patients in 46 states and the District of Columbia can go directly to a physical therapist for an evaluation of their low back pain, and in most cases, may begin their treatment without a physician referral. Physical therapy is covered by federal, state, and private insurance plans. Although direct access may be allowed by state law, an insurer retains the right to request that a patient obtain a referral prior to receiving physical therapy services. Reimbursement for direct access is normally determined when an office administrator contacts the payer to verify patient insurance benefits. The administrator should ask if the referral is still required and if there are any applicable payment policies. This is usually done prior to the patient arriving for treatment.

It is a common perception that bed rest will help alleviate back pain. **Not True!** Bed rest for longer than a day can actually slow down your recovery.



Motor control exercise is used by physical therapists for low back pain. These exercises focus on regaining control and strengthening of the trunk muscles, which support and control the spine.

## More about Physical Therapists

Physical therapists are highly-educated, licensed, health care professionals who apply research and proven treatments to help patients reduce pain and improve or restore mobility, in many cases without expensive surgery, and often reducing the need for long-term use of prescription medications and their side effects.

Physical therapists have the most specialized education and expertise to help people with conditions such as low back pain restore and improve motion. Today's physical therapist is required to complete a graduate degree, either a masters or clinical doctorate, from an accredited education program.

To find a physical therapist near you, visit [www.moveforwardpt.com](http://www.moveforwardpt.com) and select "Find a PT." You may want to consider looking for a physical therapist who is a board-certified orthopedic clinical specialist (OCS) or who has completed a residency or fellowship in orthopedic physical therapy. These therapists have advanced knowledge, experience, and skills that may apply to your condition.

When you contact a physical therapy clinic for an appointment, ask about the physical therapist's experience in helping people with low back pain, and inquire about how the clinic will work with your insurance. Before your visit, prepare to answer questions about your pain, including what triggers and worsens it.

Studies have shown that Medicare patients who received treatment by a physical therapist in the acute phase of low back pain were less likely to receive epidural steroid injections or lumbar surgery, or to have frequent physician office visits in the year following their initial physician visit.

## Mary Ann Wilmarth, PT, DPT, OCS, MTC Answers Commonly Asked Questions about Low Back Pain



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**Can low back pain be caused by obesity?**

*Studies have shown that, when compared with non-overweight people, obese individuals are more likely to experience low back pain. If a person's LBP is associated with weight, it is important to have posture, flexibility, strength, joint mobility, and movement evaluated by a physical therapist. From there, the physical therapist can develop a specialized exercise program to help you lose weight safely and minimize your LBP.*

**Is a firm mattress helpful for low back pain?**

*Unfortunately, there is no quick fix for low back pain—but for some individuals, a mattress helps to keep the spine in a neutral or straight position through the night. The right mattress will support the body and assist in aligning the spine. These qualities make a medium-firm mattress preferable to a firm mattress. To achieve pain-free sleep, see a physical therapist about your LBP. It's likely that making changes to your waking activities can reduce pain you experience during the night.*

*Spinal stenosis is a gradual narrowing of the vertebral column that can put pressure on the spinal cord and nerves. Spinal stenosis frequently causes low back pain, and while not a cure, physical therapy can provide an alternative to surgery. A physical therapist can give an evaluation to determine the best individualized program to offer relief from the symptoms of spinal stenosis. After evaluating muscle weakness, abnormal tension, and joint stiffness, a physical therapist will recommend exercises that “open up” the joint space. In addition, a patient will learn the best body positions for work, sleep, and daily activities.*

*It is important to evaluate the cause and severity of a patient’s LBP before beginning any exercise regimen. A physical therapist will conduct an in-depth assessment of the patient’s specific pain and assess his or her functional limitations and any current health conditions, such as diabetes or cardiovascular disease. The physical therapist will then develop a treatment plan and work with the patient as a team towards achieving the goals that have been set forth. Like any prescription, exercise will be tailored to the patient’s needs.*

**Can physical therapy work as a long-term fix for spinal stenosis?**

**What exercises will a physical therapist recommend to help alleviate low back pain?**

**How can I prevent low back pain during and after pregnancy?**

*Increased hormones create added flexibility in a woman's body to prepare her for childbirth. This flexibility can affect proper body mechanics and cause LBP. Fortunately, LBP during pregnancy may be addressed with exercise and education in proper posture. Based on a patient's medical history and what trimester she is in, a physical therapist will recommend appropriate exercise. After childbirth, fatigue and physical demands may cause a new mother's preexisting conditions, such as LBP, to worsen. Preventative steps can be taken by keeping baby carriers close to the body as you lift them or when lifting a child, by bending the hips and engaging the legs instead of bending the back.*

**Is bed rest an effective way to relieve low back pain?**

*No—bed rest alone is usually not advised. Instead, stay active and try to perform as much of your normal routine as possible. In fact, bed rest for longer than a day can actually prolong the problem and slow your recovery. If your pain lasts more than a few days or worsens, see your physical therapist.*

**Is it possible to prevent degenerative disk disease?**

*Degenerative disk disease, when the disks that cushion the vertebrae lose gelatin and decrease in size, may occur as a result of aging or excessive wear and tear. Research has not yet shown how to prevent this condition, but you can reduce its progression. Proper exercise, posture, and body mechanics can help keep your back healthy and free from injury. When doing strength training, be sure to consult a physical therapist about proper form to ensure your workout does not stress the back. It may also be helpful to avoid exercises that involve twisting or bending. In fact, exercise that you can do in the water can be a great way to reduce pain and wear and tear on disks and joints.*

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Have you or someone you know been helped by a physical therapist for low back pain? We'd love to hear from you. Please e-mail APTA Public Relations at [pub\\_rel@apta.org](mailto:pub_rel@apta.org).

## Citations

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