

## Low Back Pain

### Low back pain is one of the most common reasons for seeking medical care.

Most low back pain is caused by minor problems with muscles, joints, or ligaments of the back. In rare cases (<1%), low back pain is caused by a serious spinal problem.

Low back pain is categorized by how long symptoms last. Acute low back pain lasts less than 4 weeks, subacute low back pain lasts 4 to 12 weeks, and chronic low back pain lasts more than 12 weeks.

#### How Is Low Back Pain Assessed?

Patients seeking medical care for low back pain should provide a detailed medical history and undergo a physical examination. Most patients do not require diagnostic imaging of the back, such as x-rays, computed tomography (CT), or magnetic resonance imaging (MRI).

#### When Does Low Back Pain Need Urgent Medical Attention?

Patients with low back pain that is accompanied by other symptoms or signs, such as new leg weakness or paralysis, changes in bowel or bladder function, numbness around the buttocks or genitals, fever, or a history of cancer, should seek medical care as soon as possible.

#### Prognosis and Treatment of Low Back Pain

Most people with episodes of acute and subacute low back pain improve within weeks. Chronic low back pain symptoms are more likely to persist and fluctuate over time.

For acute and subacute low back pain, according to the American College of Physicians (ACP), most patients should be advised that their back pain will improve over time, regardless of treatment. Patients should stay active as tolerated and begin with nondrug treatments, including superficial heat, massage, acupuncture, and spinal manipulation. If medicines are needed, they should be added at the lowest effective dose for the shortest period. Nonsteroidal anti-inflammatory drugs (for example, ibuprofen) or skeletal muscle relaxant drugs can decrease acute and subacute low back pain. Oral or intramuscular steroids are not effective. Patients with severe pain radiating down the leg may consider further evaluation for invasive procedures. If there is a compressed nerve, invasive options might include injection of a local anesthetic and steroid near the nerve, or surgery.

For patients with chronic low back pain, priority should be given to nondrug treatments combined with exercise. According to the ACP, therapies to combine with exercise include multidisciplinary rehabilitation, acupuncture, mindfulness-based stress reduction, tai chi, yoga, motor control exercises, progressive relaxation, elec-

Options for low back pain lasting less than 12 weeks	Options for low back pain lasting more than 12 weeks
<b>OPTIONS TO CONSIDER FIRST</b>	
<ul style="list-style-type: none"> <li>• Superficial heat</li> <li>• Massage</li> <li>• Acupuncture</li> <li>• Spinal manipulation</li> <li>• Nonsteroidal anti-inflammatory drugs (eg, ibuprofen)</li> <li>• Muscle relaxant drugs</li> </ul>	<ul style="list-style-type: none"> <li>• Exercise program</li> <li>• Multidisciplinary rehabilitation</li> <li>• Acupuncture</li> <li>• Mindfulness-based stress reduction</li> <li>• Tai chi</li> <li>• Yoga</li> <li>• Motor control exercises</li> <li>• Progressive relaxation</li> <li>• Electromyographic biofeedback</li> <li>• Low-level laser therapy</li> <li>• Cognitive behavior therapy</li> <li>• Spinal manipulation</li> <li>• Nonsteroidal anti-inflammatory drugs</li> </ul>
<b>OPTIONS IF FIRST TREATMENTS FAIL</b>	
<ul style="list-style-type: none"> <li>• Local anesthetic and steroid injection or surgery for severe radiating leg pain due to nerve compression</li> </ul>	<ul style="list-style-type: none"> <li>• Tramadol (an opioid drug)</li> <li>• Duloxetine (an antidepressant drug)</li> <li>• Elective surgery or radiofrequency denervation for disabling chronic low back pain and impaired quality of life despite noninvasive treatments</li> </ul>

tromyographic biofeedback, low-level laser therapy, cognitive behavior therapy, and spinal manipulation.

For patients who do not respond to nondrug treatments, nonsteroidal anti-inflammatory drugs are the initial medication recommended to manage chronic low back pain. Second-line therapy includes tramadol (an opioid drug) or duloxetine (an antidepressant drug). Opioids other than tramadol should be considered only for patients who do not improve with all other recommended treatments and for whom the potential benefit of opioids outweighs the known risks.

Patients with disabling chronic low back pain and impaired quality of life despite noninvasive treatments may be evaluated by physicians with expertise in spinal disorders to discuss invasive treatment options, such as elective surgery or a procedure called radiofrequency denervation (insertion of a heated needle into the back to destroy spinal nerve endings). Invasive treatments for low back pain require consideration of risks, benefits, and costs, as well as a patient's values and preferences.

#### FOR MORE INFORMATION

US National Library of Medicine  
[medlineplus.gov/backpain.html](https://medlineplus.gov/backpain.html)

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National Institute for Health and Care Excellence. [Managing low back pain and sciatica.](#)

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