

# Chronic Low Back Pain Treatment

Chronic low back pain treatments typically focus on biomedical [treatment](#) approaches. While psychosocial treatments exist, multiple barriers prevent broad access. There is a significant unmet need for integrative, easily accessible, non-opioid solutions for chronic [pain](#) <sup>1)</sup>.

## Current Clinical Practice Guidelines

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No uniform initial treatment pathway exists for these patients. Depending on the comfort and experiences of the primary care provider, some patients may be started on a conservative plan with oral nonsteroidal anti-inflammatory drugs, muscle relaxants, oral steroids, and physical therapy, whereas others may undergo spinal imaging immediately and have rapid referral to a spine surgeon.

One of the problems with initial management of low back pain has been the appropriate [triage](#) of these patients to the provider best equipped to deal with their problem in a cost-effective manner. This problem has been cofounded by the ubiquity of back pain, its heterogeneous causes, and the fact that it may represent a sign of a serious underlying condition.

Surgical treatment is indicated in case of inefficient medical treatment or if there is a risk of neurologic compromise or instability.

Implementation of interventional pain procedures in the treatment framework of LBP has resulted in improvement of pain intensity in at least the short and medium terms, but equivocal results have been observed in functional improvement <sup>12)</sup>.

The most frequently used treatment for [chronic low back pain](#) is [radiofrequency denervation](#).

However, different clinical studies could only show a limited to no improvement regarding the decrease of pain intensity and duration of the effect. The main reasons for these limited effects seem to be due to the size of the lesion and difficulties in locating the exact placement of the cannula near the medial branch as well as or additional pathologies. Using an [endoscope](#), it is possible to coagulate the [facet joints](#) and the medial branch under visual control and consider other pathologies such as extraspinal synovial cysts.

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Effective intervention for the treatment of chronic [low back pain](#) remains elusive despite extensive research into the area.

Treatment for low back pain generally depends on whether the pain is acute or chronic. In general, surgery is recommended only if there is evidence of worsening nerve damage and when diagnostic tests indicate structural changes for which corrective surgical procedures have been developed.

Conventionally used treatments and their level of supportive evidence include:

Hot or cold packs have never been proven to quickly resolve low back injury; however, they may help ease pain and reduce inflammation for people with acute, subacute, or chronic pain, allowing for

greater mobility among some individuals.

## Chronic low back pain medical treatment

see [Chronic low back pain medical treatment](#).

### Spinal manipulation

Spinal manipulation and spinal mobilization are approaches in which professionally licensed specialists (doctors of chiropractic care) use their hands to mobilize, adjust, massage, or stimulate the spine and the surrounding tissues. Manipulation involves a rapid movement over which the individual has no control; mobilization involves slower adjustment movements. The techniques have been shown to provide small to moderate short-term benefits in people with chronic low back pain. Evidence supporting their use for acute or subacute low back pain is generally of low quality. Neither technique is appropriate when a person has an underlying medical cause for the back pain such as osteoporosis, spinal cord compression, or arthritis.

Traction involves the use of weights and pulleys to apply constant or intermittent force to gradually “pull” the skeletal structure into better alignment. Some people experience pain relief while in traction, but that relief is usually temporary. Once traction is released the back pain tends to return. There is no evidence that traction provides any longterm benefits for people with low back pain.

### Acupuncture

Acupuncture is moderately effective for chronic low back pain. It involves the insertion of thin needles into precise points throughout the body. Some practitioners believe this process helps clear away blockages in the body’s life force known as Qi (pronounced chee). Others who may not believe in the concept of Qi theorize that when the needles are inserted and then stimulated (by twisting or passing a low-voltage electrical current through them) naturally occurring painkilling chemicals such as endorphins, serotonin, and acetylcholine are released. Evidence of acupuncture’s benefit for acute low back pain is conflicting and clinical studies continue to investigate its benefits.

Biofeedback is used to treat many acute pain problems, most notably back pain and headache. The therapy involves the attachment of electrodes to the skin and the use of an electromyography machine that allows people to become aware of and selfregulate their breathing, muscle tension, heart rate, and skin temperature. People regulate their response to pain by using relaxation techniques. Biofeedback is often used in combination with other treatment methods, generally without side effects. Evidence is lacking that biofeedback provides a clear benefit for low back pain.

Nerve block therapies aim to relieve chronic pain by blocking nerve conduction from specific areas of the body. Nerve block approaches range from injections of local anesthetics, botulinum toxin, or steroids into affected soft tissues or joints to more complex nerve root blocks and spinal cord stimulation. When extreme pain is involved, low doses of drugs may be administered by catheter directly into the spinal cord. The success of a nerve block approach depends on the ability of a practitioner to locate and inject precisely the correct nerve. Chronic use of steroid injections may lead

to increased functional impairment.

Epidural steroid injections are a commonly used short-term option for treating low back pain and sciatica associated with inflammation. Pain relief associated with the injections, however, tends to be temporary and the injections are not advised for long-term use. An NIH-funded randomized controlled trial assessing the benefit of epidural steroid injections for the treatment of chronic low back pain associated with spinal stenosis showed that long-term outcomes were worse among those people who received the injections compared with those who did not.

Transcutaneous electrical nerve stimulation (TENS) involves wearing a battery-powered device consisting of electrodes placed on the skin over the painful area that generate electrical impulses designed to block incoming pain signals from the peripheral nerves. The theory is that stimulating the nervous system can modify the perception of pain. Early studies of TENS suggested that it elevated levels of endorphins, the body's natural pain-numbing chemicals. More recent studies, however, have produced mixed results on its effectiveness for providing relief from low back pain.

Injecting methylprednisolone acetate into the facet joints is of little value in the treatment of patients with chronic low back pain <sup>13)</sup>.

## Exercise

see [Exercise for Chronic Low Back Pain Treatment](#).

## Electrostimulation

Electrostimulation to elicit episodic lumbar multifidus contraction is a new treatment option for CMLBP. Results demonstrate clinically important, statistically significant, and lasting improvement in pain, disability, and QoL <sup>14)</sup>.

## Patient led goal setting in chronic low back pain

see also [Patient led goal setting in chronic low back pain](#).

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