## Causes of back pain

Almost everyone experiences back or neck pain at some time. Most pain is short term, lasting no more than several weeks. This is called acute pain. Occasionally pain can last longer, sometimes for months or even years. This is called persistent pain.

Most acute back or neck pain is due to muscle sprains and strains, which will get better on their own. Even if the actual tissue damage is minor the pain may be quite severe, due to the inflammation that occurs. Diagnostic tests such as X-rays are rarely needed.

Persistent pain can be due to ongoing irritation of the back or neck structures. However, persistent pain can also arise fromoverly sensitive nervesand not tissue damage itself. Hypersensitivity to pain can occur because of stress, anxiety, and depression, as well as other factors we don't fully understand. Hypersensitive nerves, like a faulty alarm system, may go off for no apparent reason. Even minor movements, which ordinarily would create minimal if any pain, can trigger severe pain. While persistent pain is severe, it is usually not dangerous.





# **UCSF** Spine Center

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# Information for Patients

**UCSF Spine Center** Non-operative Spine Service

- Patient-centered care for individuals with back and neck pain.
- We practice patient-centered care.
- Our specialists partner with patients to make joint decisions about treatment plans, based both on the best medical evidence and each patient's unique values and goals.
- Our goal is to provide each patient with back or neck pain the care and education that will enable a return to optimal health and performance.



We employ an evidence-based, multidisciplinary approach to the managing patients with chronic back, neck, and joint pain

# How to treat pain

#### Acute pain

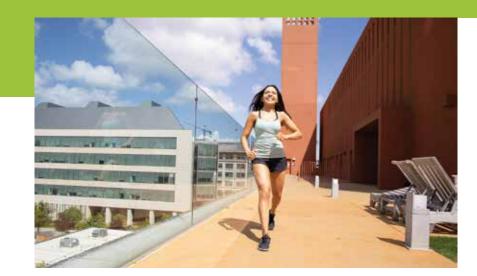
Most patients can manage acute pain without seeing a health care provider, by doing the following:

- Staying active by continuing as many normal activities as you can, including exercise.
- Over-the-counter medications such as Tylenol, Advil or Aleve
- Stretching exercises
- Heat or ice
- Massage

### Persistent pain

To successfully treat persistent pain, relieving irritated tissues is important, but so is reducing the sensitivity of the nervous system, relieving stress, easing worrying thoughts, and improving mood. Try some of the techniques below to decrease pain and minimize the effects of pain on work, family, and other relationships.





## Exercise

Exercise is not only safe for people with persistent pain, it is crucial to overcoming pain. Both specific exercises that target the back or neck muscles as well as general exercise are important.

Weak and stiff muscles can predispose you to back or neck pain. Exercises that stretch and strengthen the muscles are necessary to relieve pain. Many people with persistent pain have been told that their pain is due to degenerated discs or arthritic joints. These changes actually occur naturally and are very common in people without pain. For example, more than one-third of 20 year olds WITHOUT ANY BACK PAIN have disc degeneration. Even if pain is related to the discs or joints it is important to strengthen the muscles of the spine, which will better support painful structures, relieving pressure and inflammation.

In addition to exercises to re-train muscles, general exercise such as walking, riding a stationary bicycle, or swimming, are important. Movement promotes blood flow, which furthers the healing process. It also stimulates the brain to produce its own powerful pain medicine (endorphins), lessens stress, and relieves anxiety. Exercise is also the most important way to decrease nervous system sensitivity.

Many people with persistent pain are afraid to move, either because they want to avoid pain or because they are concerned they might do damage to their spine. This sets up a vicious cycle, where lack of movement leads to more pain, which leads to less movement, and so on. Gradually increasing activity levels can help overcome fear of pain and improve physical function.

- to exercise.

- Diet/lifestyle



#### Medical treatments

While some people look to surgery as a solution for persistent pain only 5 percent of spine problems can be reliably fixed with surgery. However, there are a number of other medical treatments that can be helpful.

Medications can help decrease inflammation in the tissues and decrease the sensitivity of the nervous system. There are a number of medications that can be helpful. Opioids should be avoided, not only because of adverse effects, but because they can actually increase the sensitivity of the nerves that cause pain.

Injections into the spine can sometimes be helpful, especially if irritation of back or neck structures is interfering with the ability

A number of other treatments, such as acupuncture, chiropractic manipulations, and massage, can also be very helpful in treating persistent pain.

#### Stress reduction

Learning to control your responses to stressful situations will help you take more control over your pain. There are a number of ways to reduce stress, such as breathing and muscle relaxation exercises, meditation, yoga, and tai chi.

#### Addressing negative thoughts and emotions

Talk therapy can help you learn how to deal with negative thoughts and emotions. Cognitive behavioral therapy (CBT) is one type of talk therapy that is often used to help patients with persistent pain, as it can quickly help you identify and cope with specific challenges.

What we eat and how we live can contribute to a sensitized nervous system. Looking at smoking, nutrition, alcohol, and activity levels are a good beginning.