

## Acute Neck Pain

### Overview

Neck pain results when the spine is stressed by injury, disease, wear and tear, or poor body mechanics. Acute neck pain is abrupt, intense pain that can radiate to the head, shoulders, arms, or hands. It typically subsides with rest, physical therapy and other self-care measures. You play an important role in the prevention, treatment and recovery of neck pain. However, if chronic, pain will persist despite treatment and need further evaluation.

### Types of neck pain

With the most range of motion, the cervical spine can be prone to overuse and injury (Fig. 1). Neck pain ranges from mild to severe depending on the amount of injury, and can be acute or chronic.

- **Acute neck pain** occurs suddenly and usually heals within several days to weeks. The source of pain is usually in the muscles and ligaments, joints, or discs.
- **Chronic neck pain** persists for more than 3 months; it may be felt all the time or worsen with certain activities. Although its source may be hard to determine, contributing factors include nerve damage, tissue scarring, arthritis, or emotional effects of pain. People with chronic symptoms may be referred to a pain specialist.

### What are the symptoms?

Signs and symptoms of neck pain may be stiffness, tightness, aching, burning or stabbing or shooting pains, pressure, or tingling. Muscles can feel sore or tense in the neck, face, or shoulders. Muscles can spasm when they go into a state of extreme contraction (e.g., after whiplash). Movement may be restricted—perhaps you cannot turn your head. If nerves are involved, pain, tingling, numbness, or weakness may develop in your shoulders, arms or hands.

**Several situations signal the need for prompt medical attention.** If nerve compression is severe, symptoms can include pain, numbness, tingling in the arms or legs, loss of bladder or bowel control, or loss of strength and problems with coordination.

Neck pain along with a severe headache, fever, or nausea could be a sign of infection or a bleed in the brain. If your neck is so stiff that you can't touch your chin to chest, seek medical help immediately.

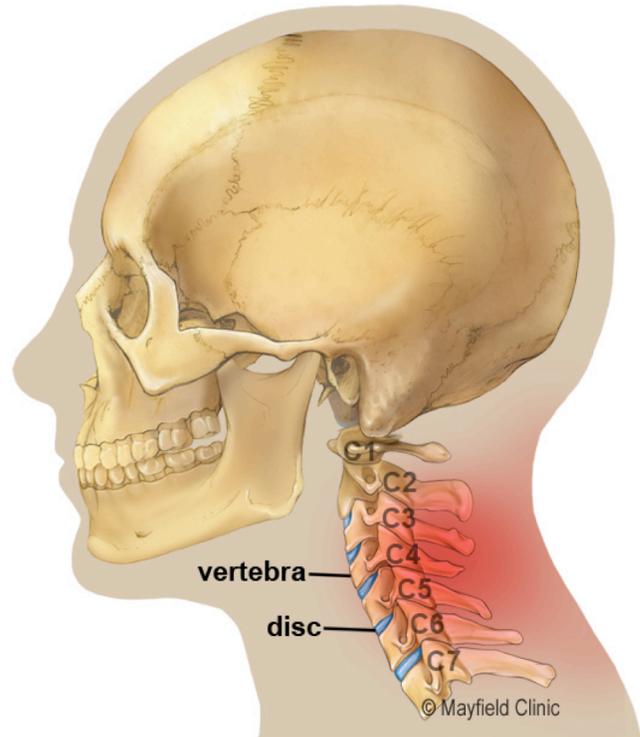


Figure 1. (side view) The neck region is called the cervical spine. Protected within the bones of the cervical spine are the spinal cord and nerves. The seven cervical bones (vertebrae) are numbered C1 to C7. Each bone is separated and cushioned by shock-absorbing discs. The spinal nerves pass through bony canals to branch out to the neck and arms.

### What are the causes?

Neck pain can result from injury, poor posture, stress, natural wear, disease, and other sources. Poor spinal alignment (e.g., slouching, sleeping on the stomach) and improper lifting stress the cervical spine and make injuries more likely. Neck pain can result from:

- **Injury or trauma:** A whiplash injury, sports injury, or fall can strain or tear muscles and ligaments. Fractures can occur.
- **Herniated disc:** The gel-like center of a spinal disc can bulge or rupture through a weak area in the wall and compress nerves.
- **Pinched nerve:** Compression of a spinal nerve as it leaves the canal can cause pain to travel down the arm into the hands or fingers. Pinched nerve pain differs from carpal tunnel syndrome, which usually involve numbness.

- **Osteoarthritis:** As discs naturally age they dry out and shrink; bone spurs can form. These changes lead to stenosis or disc herniation.
- **Stenosis:** Narrowing of the bony canals in the spine can compress the cord and nerves, causing them to swell and inflame.

### How is a diagnosis made?

A careful medical exam will help determine the type and cause of your neck problem, and the best treatment options. A diagnostic evaluation includes a medical history and physical exam. Sometimes imaging scans (e.g., x-ray, CT, MRI) and tests to check muscle strength and reflexes are used.

### What treatments are available?

Healing begins with self-care and nonsurgical strategies (Fig. 2). The goal is to correct the problem, restore function, and prevent re-injury.

**Self care:** Neck pain often resolves with rest, ice or heat, massage, pain relievers, and gentle stretches. Reduce muscle inflammation and pain using an ice pack for 20 minutes several times a day during the first 48 to 72 hours. Thereafter, a warm shower or heating pad on low setting may be added to relax the muscles. A short period of bed rest is okay, but more than a couple of days does more harm than good. If self-care treatments aren't working within the first couple of days, see your doctor.

**Medications:** Many people get pain relief with over-the-counter nonsteroidal anti-inflammatory drugs (NSAIDs) such as aspirin, ibuprofen or naproxen. A muscle relaxant may be prescribed for spasms. If pain is severe, an analgesic may be prescribed that can be taken with the NSAID or muscle relaxant.

Steroids can reduce the swelling and inflammation of the nerves. They are taken orally as a Medrol dose pack tapered over a five-day period or by an injection directly into the pain source (see epidural steroid injections and facet injections). Steroids may provide immediate pain relief within 24-hours.

**Physical therapy / exercise:** For most neck pain, we recommend a nearly normal schedule from the onset. Physical therapy can help you return to full activity as soon as possible and prevent re-injury. Physical therapists will show proper lifting and walking techniques, and exercises to strengthen and stretch your neck, arms, and abdominal muscles. Massage, ultrasound, diathermy, heat, and traction may also be recommended for short periods. People may also benefit from yoga, chiropractic manipulation, and acupuncture.



Figure 2. Exercise, strengthening, stretching and ideal weight loss are key elements to your treatment.

**Surgery:** Surgery is rarely needed unless you have muscle weakness, a proven disc herniation, cervical cord compression, problems with balance and coordination, or severe pain that does not resolve after a reasonable course of nonsurgical treatment.

### Recovery & prevention

Most people with acute neck pain respond rapidly to treatment; 90% are symptom-free within 1 to 2 weeks. A positive attitude, regular activity, and a prompt return to work are all very important elements of recovery. If regular job duties cannot be performed initially, modified (light or restricted) duty may be prescribed for a limited time.

Prevention is key to avoiding recurrence:

- Proper lifting techniques
- Good posture during sitting, standing, sleeping
- Regular exercise with stretching and strengthening
- An ergonomic work area
- Good nutrition, healthy weight, lean body mass
- Stress management and relaxation techniques
- No smoking

### Sources & links

If you have more questions, please contact Mayfield Brain & Spine at 800-325-7787 or 513-221-1100.

### Links

[www.spine-health.com](http://www.spine-health.com)  
[www.allaboutbackandneckpain.com](http://www.allaboutbackandneckpain.com)



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