CLAVICLE PAIN - Thoracic outlet syndrome

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Thoracic outlet syndrome (TOS) is a group of disorders that occur when blood vessels or nerves in the space between your collarbone and your first rib (thoracic outlet) are compressed. This can cause clavicle, chest and neck pain and maybe shoulder and numbness in your fingers.

in the collarbone, chest, and even the neck or back/shoulder

Thoracic outlet syndrome (TOS) is a group of disorders that occur when blood vessels or nerves in the space between your collarbone and your first rib (thoracic outlet) are compressed. This can cause clavicle, chest and neck pain and maybe shoulder and numbness in your fingers.

What could be causing my collarbone pain?

Many injuries can damage the collarbone, and some require immediate attention. When should a person seek emergency treatment, and when will a routine trip to the doctor be enough? We address these questions and more.

The collarbone, also known as the clavicle, extends from the shoulder to the breastbone.

Common causes of collarbone pain include:

fracture
thoracic outlet syndrome
joint injury
osteoarthritis
sleeping position
distal clavicular osteolysis
cancer
osteomyelitis

1. Fractures and breaks

Share on PinterestSome injuries to the collarbone will require immediate medical treatment.

The collarbone is among the most likely to fracture. Blunt force applied to an outstretched arm or shoulder can easily injure or break this bone.

The following activities often lead to broken or fractured collarbones:

birth
contact sports, such as football, martial arts, or basketball
car accidents

How can a person identify a broken collarbone?
Collarbone breaks and fractures usually occur with shoulder injuries caused by accidents.

Pain around the collarbone will start suddenly and often grow worse as a person tries to move their shoulder. They may also feel a grinding sensation or hear a clicking noise.

Other symptoms of a broken or fractured collarbone include:

tenderness
swelling
bruising around the area
a stiff arm

A caregiver or doctor may notice that a newborn is not moving one arm, possibly indicating a brake or fracture.

A broken collarbone is diagnosed following an X-ray and an examination, in which a doctor checks for bruising or swelling.

Treatment
Treatment will depend on the severity of the injury.

If the bone has remained in place, despite the break or fracture, a person will likely only need to wear a sling for a few days and rest the arm. In some cases, a doctor will recommend a brace instead.

More severe breaks may require surgery, in which a surgeon will insert pins, a rod, or a plate to keep the bone and fragments in place during healing.

2. Thoracic outlet syndrome

This occurs when the collarbone shifts from its normal position and applies pressure to the blood vessels and nerves located between the bone and the highest rib.

Potential causes of thoracic outlet syndrome include:

obesity
injury
poor posture
weak shoulder muscles
repetitive lifting or strain
congenital disability

The following symptoms may indicate this syndrome:

weakness in the arm
a painful lump under the collarbone
pain and swelling or numbness in one arm
pain in the neck, collarbone, or shoulder
changes to the color of the hands or fingers

Physical therapy is a common treatment. It will likely focus on strengthening the muscles around the collarbone. However, surgery may be required in more severe cases.

3. Joint injury

Share on PinterestAn injury to the joint connecting the collarbone to the shoulder blade may cause pain and tenderness.

The acromioclavicular (AC) joint is located where the collarbone meets the top of the shoulder blade.

Separation of the joint is a common injury, sometimes caused by blunt force or a fall.

Injuring the AC joint can lead to pain, but it does not always accompany a break of the collarbone.

Symptoms include:

swelling
tenderness
pain
a collarbone that is out of place
a bulge above the shoulder

Depending on the severity of the injury, a doctor may recommend:

resting the shoulder and applying ice
using a brace to stabilize the joint
surgery

4. Osteoarthritis

Osteoarthritis happens when protective tissue at the end of a bone wears down.

This type of arthritis is often caused by normal wear and tear that accompanies ageing. In some cases it is brought on by injury.

Symptoms of osteoarthritis in the collarbone include:

pain in the area that gets worse very gradually
stiffness in the AC joint
pain in the AC joint

Treatments include:

nonsteroidal anti-inflammatory drugs, such as ibuprofen
corticosteroid injections
changes to lifestyle, which may involve avoiding activities that irritate the joint
surgery (rarely)

5. Sleeping position

Sleeping in certain positions can cause pain in the collarbone, the chest, extending to the neck and shoulder (back). Sleeping on the same side for long periods may be especially problematic. This pain typically eases during the day. Some may treat it with over-the-counter medications, and prevent it by changing positions during the night. New pillows or mattresses can also help with this type of pain. Phisiotherapy and TENS may help as well.

6. Distal clavicular osteolysis

This is the term for small fractures developing on the end of the collarbone closest to the shoulder, known as the distal end. The condition is sometimes called weightlifter’s shoulder.

If a person does not allow these fractures to heal, they will grow worse and lead to pain and swelling.

Symptoms of distal clavicular osteolysis include:

general aches and pain in the area
pain when moving the arm across the body
pain when lifting objects above the head

Treatment usually involves resting and avoiding activities that aggravate the symptoms. Other treatments may include:

medications for pain and swelling

physiotherapy
steroid injections
surgery

7. Cancer

Share on PinterestIt is rare for collarbone pain to be caused by cancer.

Cancer is not a common cause of collarbone pain.

If cancer is causing the pain, it may have spread from another part of the body. For example, lymph nodes that have developed cancer tend to cause pain in neighboring areas, such as the collarbone.

Neuroblastoma is a type of cancer that often develops in bones and lymph nodes. It can affect young children as well as adults.

Symptoms include:

high blood pressure
fever
sweating
rapid heartbeat
diarrhea

When cancer spreads to the collarbone, surgery or radiation are common treatments. Recommended methods will depend on how advanced the cancer is when treatment starts.

8. Osteomyelitis

Osteomyelitis, a bone infection, is not very common.

The following symptoms may indicate osteomyelitis of the collarbone:

tenderness
swelling
nausea
fever
warmth around the site of infection
pus oozing from the skin

Below are common causes of osteomyelitis:

bacterial infections, such as sepsis or pneumonia
infection that occurs after a fractured collarbone punctures the skin
infection that spreads from a wound near the collarbone

Usually, a person with osteomyelitis is hospitalized and receives intravenous antibiotics.

A doctor will likely need to drain pus from the site of the infection and stabilize the bone.

After being released, the person may continue to take antibiotics orally for several weeks or months.

When to see a doctor

Following an injury to the collarbone, contact emergency services. Upon examination, a doctor will make a diagnosis and recommend treatment. Failing to get appropriate care can delay healing or cause an injury to heal incorrectly.

See a doctor if shoulder pain is unexplained or accompanied by other symptoms.

Takeaway

Most people can expect a full recovery from a broken or fractured collarbone, especially if the injury is treated early.

Other causes of collarbone pain are less common and may not need medical attention.

Consult a doctor if the cause of collarbone pain is unclear.

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Overview
Thoracic outletOpen pop-up dialog box

Thoracic outlet syndrome (TOS) is a group of disorders that occur when blood vessels or nerves in the space between your collarbone and your first rib (thoracic outlet) are compressed. This can cause shoulder and neck pain and numbness in your fingers.

Common causes of thoracic outlet syndrome include physical trauma from a car accident, repetitive injuries from job- or sports-related activities, certain anatomical defects (such as having an extra rib), and pregnancy. Sometimes doctors don't know the cause of thoracic outlet syndrome.

Treatment for thoracic outlet syndrome usually involves physical therapy and pain relief measures. Most people improve with these treatments. In some cases, however, your doctor may recommend surgery.

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Symptoms
There are three general types of thoracic outlet syndrome:

Neurogenic (neurologic) thoracic outlet syndrome. This most common type of thoracic outlet syndrome is characterized by compression of the brachial plexus. The brachial plexus is a network of nerves that come from your spinal cord and control muscle movements and sensation in your shoulder, arm and hand.
Venous thoracic outlet syndrome. This type of thoracic outlet syndrome occurs when one or more of the veins under the collarbone (clavicle) are compressed, resulting in blood clots.
Arterial thoracic outlet syndrome. This is the least common type of TOS. It occurs when one of the arteries under the collarbone is compressed, resulting in bulging of the artery, also known as an aneurysm.

It's possible to have a mix of the three different types of thoracic outlet syndrome, with multiple parts of the thoracic outlet being compressed.

Thoracic outlet syndrome symptoms can vary depending on the type. When nerves are compressed, signs and symptoms of neurogenic thoracic outlet syndrome include:

Numbness or tingling in your arm or fingers
Pain or aches in your neck, shoulder, arm or hand
Weakening grip

Signs and symptoms of venous thoracic outlet syndrome can include:

Discoloration of your hand (bluish color)
Arm pain and swelling
Blood clot in veins in the upper area of your body
Arm fatigue with activity
Paleness or abnormal color in one or more fingers or your hand
Throbbing lump near your collarbone

Signs and symptoms of arterial thoracic outlet syndrome can include:

Cold fingers, hands or arms
Hand and arm pain
Lack of color (pallor) or bluish discoloration (cyanosis) in one or more of your fingers or your entire hand
Weak or no pulse in the affected arm

When to see a doctor
See your doctor if you consistently experience any of the signs and symptoms of thoracic outlet syndrome.

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Diagnosis
Diagnosing thoracic outlet syndrome can be difficult because the symptoms and their severity can vary greatly among people with the disorder. To diagnose thoracic outlet syndrome, your doctor may review your symptoms and medical history and conduct a physical examination and additional imaging and testing.

Physical examination. Your doctor will perform a physical examination to look for external signs of thoracic outlet syndrome, such as a depression in your shoulder, a bony abnormality above the collarbone, swelling or pale discoloration in your arm or abnormal pulses. Your doctor may test range of motion and try to reproduce your symptoms by asking you to move or lift your arms or turn your head. Understanding which positions and movements trigger your symptoms can help your doctor identify thoracic outlet syndrome.
Medical history. Your doctor will likely ask about your medical history and symptoms, as well as your occupation and physical activities.

Imaging and nerve study tests
To confirm the diagnosis of thoracic outlet syndrome, your doctor may order one or more of the following tests:

Ultrasound. An ultrasound uses sound waves to create images of your body. It's often the first imaging test used to help diagnose thoracic outlet syndrome. Doctors may use this test to see if you have vascular thoracic outlet syndrome or other vascular problems.
X-ray. Your doctor may order a chest X-ray, which may reveal an extra rib (cervical rib). X-rays can also help to rule out other conditions that could be causing your symptoms.

Computerized tomography (CT) scan. A CT scan uses X-rays to obtain cross-sectional images of your body. A dye may be injected into a vein to view the blood vessels in greater detail (CT angiography). A CT scan may identify the location and cause of blood vessel (vascular) compression.
Magnetic resonance imaging (MRI). An MRI uses powerful radio waves and magnets to create a detailed view of your body. Your doctor may use an MRI to determine the location and cause of blood vessel (vascular) compression, sometimes along with an injected dye to better see the blood vessels. An MRI may reveal congenital anomalies, such as a fibrous band connecting your spine to your rib or a cervical rib, which may be the cause of your symptoms. It may be used while your doctor places your head, shoulders and neck in different positions for a better view of the blood vessels in your arm.

Arteriography and venography. In these tests, your doctor inserts a thin, flexible tube (catheter) through a small incision, usually in your groin. The catheter is moved through your major arteries in arteriography, or through your veins in venography, to the affected blood vessels. Then your doctor injects a dye through the catheter to show X-ray images of your arteries or veins.

Doctors can check to see if you have a compressed vein or artery. If a vein or artery has a clot, doctors can deliver medications through the catheter to dissolve the clot.

Electromyography (EMG). During an EMG, your doctor inserts a needle electrode through your skin into various muscles. The test evaluates the electrical activity of your muscles when they contract and when they're at rest. This test can determine if you have nerve damage.