

Costoclavicular Syndrome

Costoclavicular syndrome is a series of disorders that occur when the nerves or blood vessels between the first rib and the collarbone become compressed. It can cause pain within the neck and shoulders, as well as numbness in your fingers. Various causes have been attributed to the condition, but there are times when a specific cause is unknown. From a physical trauma (car accident) to a repetitive injury, sports related injuries, anatomical defects and pregnancy, any number of things can cause this condition to occur.

Costoclavicular Syndrome Anatomy

This syndrome involves the compression of the superior thoracic outlet, which results from an excessive amount of pressure being placed onto the neurovascular bundle that passes between the middle and anterior scalene muscles. It might affect one or more of the nerves responsible for innervating the blood vessels and upper limb as they pass along the upper extremities and chest, specifically in that of the subclavian artery, brachial plexus and the subclavian vein, which doesn't normally pass through the scalene hiatus.

How to Treat Costoclavicular Syndrome:

1. Physical Therapy

If you are suffering with neurogenic costoclavicular syndrome, physical therapy is often the first line of defense. You will learn the manner in which to perform stretching and strengthening exercises for the shoulder muscles to open the area up, improve your posture and improve range of motion. These exercises, which are done over the course of time, will help to take the pressure from your nerves and blood vessels. Treatment such as soft tissue massage to the tight muscles, mobilization to the neck and upper back, and electrotherapy and acupuncture can also be very helpful at curing this condition.

2. Medication

You might be prescribed anti-inflammatory medication, pain medication or muscle relaxant to help reduce pain, decrease inflammation and promote muscle relaxation.

3. Clot Dissolving Medication

If you are suffering with the condition and you have blood clots, you might need to have a clot dissolving medication administered into your arteries or veins to help dissolve the clots. After you have been given the injection, you might be prescribed an anticoagulant to help prevent the formation of future blood clots.

4. Posture

Poor posture (i.e. forward shoulders, and forward head posture) can put a lot of strain through the neck muscles, and shorten the neck muscles. Improving posture often helps improve any neurological or vascular restriction occurring in the neck.

5. Surgery

If other treatment methods haven't been effective, or you are suffering with ongoing symptoms and have progressive neurological issues, you may be left with no alternative beyond surgery. Three different approaches to the surgery can occur. Transaxillary approaches is where the

surgeon makes an incision into the chest to gain access to the first rib, divide the muscles that are located in front of the rib and remove a small part of the rib to alleviate compression. Infraclavicular approaches involve an incision underneath the collarbone and across the chest. This procedure works to treat compressed veins requiring a lot of repair. The supraclavicular approach repairs the compressed blood vessels by making an incision just under the neck to gain access to the brachial plexus.

Tips:

1. Avoid drooping your shoulders and holding your head forward for an extended period of time to alleviate compression in the thoracic (upper back) and cervical (neck) region.
2. Traumatic events can cause internal changes leading to compression of the nerves.
3. Try to avoid doing the same thing over and over to prevent wear on the tissue in your body.
4. Being born with an extra rib can cause the condition to occur.
5. Since joints tend to loosen when pregnant, the condition can present itself at that point in time.