

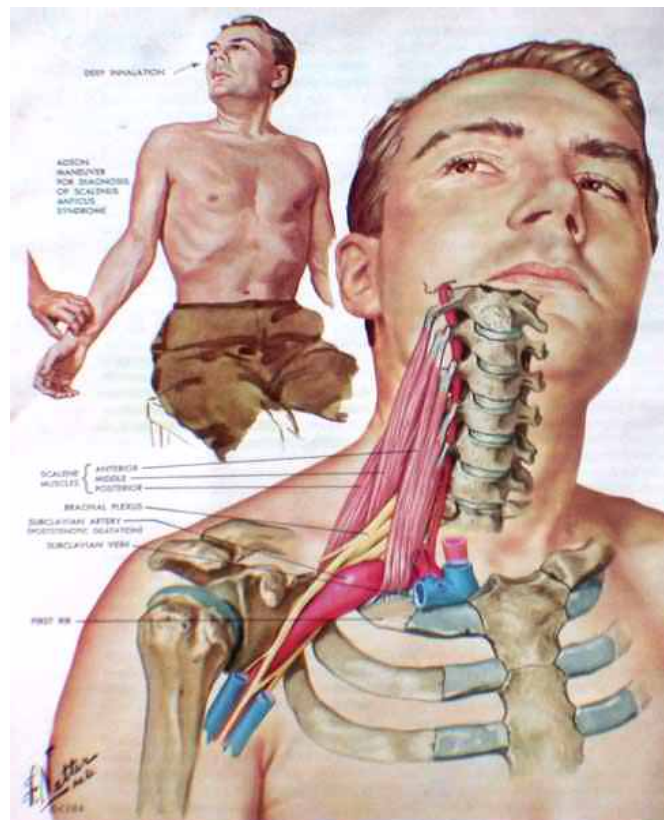
THORACIC OUTLET SYNDROME

What is it?

A condition that involves pain in the neck and shoulder, numbness and tingling in the fingers and a weak grip.

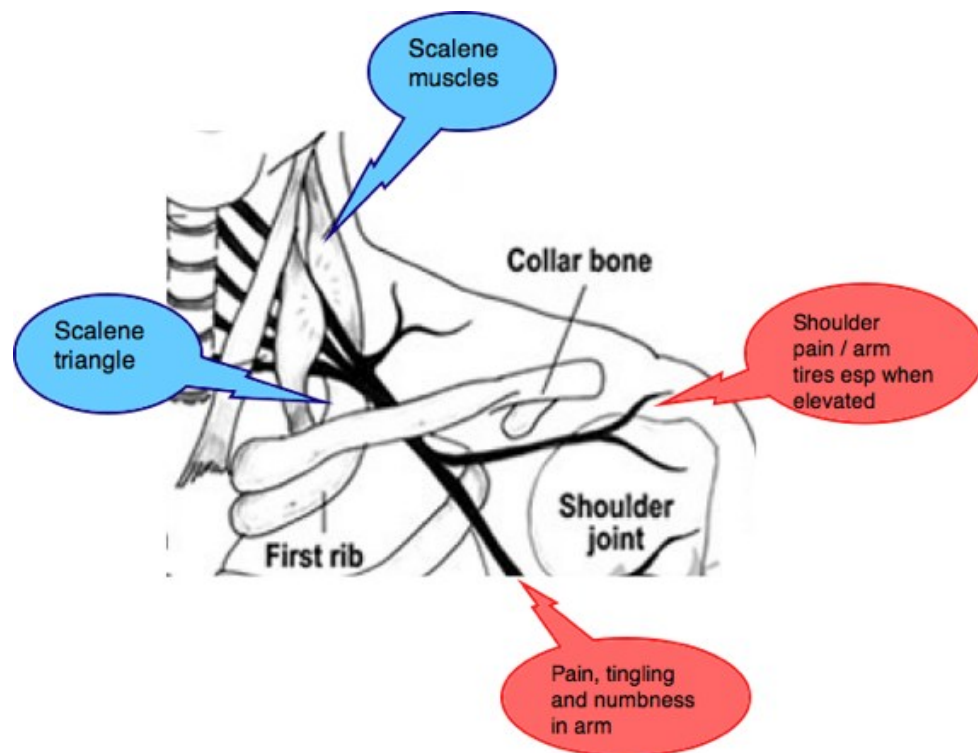
What causes it?

The thoracic outlet is the area between the rib and collarbone.



Blood vessels and nerves coming from the spine or major blood vessels of the body pass through a narrow space near the shoulder and collarbone on their way to the arms. As they pass by or through the collarbone (clavicle) and upper ribs, they may not have enough space.

Pressure (compression) on these blood vessels or nerves can cause symptoms in the arms or hands. Problems with the nerves cause almost all cases of thoracic outlet syndrome. Compression can be caused by an extra cervical rib (above the first rib) or an abnormal tight band connecting the spinal vertebra to the rib. Patients often have injured the area in the past or overused the shoulder.



People with long necks and droopy shoulders may be more likely to develop this condition because of extra pressure on the nerves and blood vessels. 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. Even a long-ago injury can lead to thoracic outlet syndrome in the present.

What symptoms may I feel?

Symptoms may vary, depending on which nerves or blood vessels are compressed. Symptoms from nerve compression are much more common than symptoms from blood vessel compression.

- **Pressure on the nerves** (brachial plexus) may cause a vague, aching pain in the neck, shoulder, arm, or hand. It may also cause pain, numbness, or tingling on the inside of the forearm and the fourth and fifth fingers of the hand. Weakness may make your hand clumsy.
- **Pressure on the blood vessels** can reduce the flow of blood out of your arm, resulting in swelling and redness of your arm. Less commonly, pressure can reduce the blood flow *into* your arm and hand, making them feel cool and easily fatigued.
- Overhead activities are particularly difficult because they worsen both types of compression.
- There may be a depression in your shoulder, or swelling or discoloration in your arm.
- Your range of motion may be limited

What can be done about it?

The first treatment is always physical therapy. Physical therapy helps strengthen the shoulder muscles, improve range of motion, and promote better posture. Treatment may also include pain medication. Treatment for thoracic outlet syndrome usually does not include surgery.