

STEVEN CHUDIK MD

SHOULDER, KNEE & SPORTS MEDICINE

Trapezius Palsy
Spinal Accessory Nerve Palsy

Trapezius palsy results from an uncommon nerve condition in the shoulder that can cause pain and weakness. In order for muscles to work properly, the nerves that innervate (supply) them must also function appropriately. If the nerves are somehow damaged or compressed somewhere along their course, it can affect their ability to conduct signals to the muscles. When this occurs, nerve function decreases and the targeted muscle experiences weakness, atrophy (decreased size), and loss of function.

Trapezius palsy typically results from injury to the spinal accessory nerve along the neck. The spinal accessory nerve runs from the neck to the trapezius muscle, a large muscle that runs between the neck and shoulder and down the back. The nerve can be stretched due to a fall on the shoulder while the neck bends toward the opposite side, or by a direct blow to the shoulder or neck. Minor neck surgeries may also result in trapezius palsy. Injury to this nerve results in weakness of the trapezius muscle. The trapezius muscle helps with shoulder blade (scapula) function and injury causes the scapula to move abnormally with attempted shoulder movement. As the scapula provides the base for all shoulder functions, abnormal movement of the scapula can result in shoulder weakness, pain, and dysfunction.

Frequent Signs and Symptoms

- Pain and discomfort (burning or dull ache) that is poorly localized, often in the back of the shoulder or shoulder blade
- Heaviness or fatigue of the arm
- Loss of power of the shoulder
- Difficulty raising the arm above shoulder level
- Atrophy (shrinkage) of the trapezius muscle causing the neckline to look asymmetric
- Drooping of the shoulder

Etiology (Causes)

- Direct blow to the neck or shoulder
- Fall onto shoulder with the head and neck stretched away from the shoulder
- Unexpected result of surgery



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Risk Factors

- Contact sports
- Surgery around the neck
- Poor physical conditioning (strength and flexibility)

Prevention

- Appropriately warm up and stretch before practice or competition
- Maintain appropriate conditioning:
 - Shoulder flexibility
 - Muscle strength and endurance
- Wear appropriate shoulder protective pads

Outcomes

Unless the spinal accessory nerve is severed or injured with surgery, the majority of trapezius palsies spontaneously resolve in four to six months.

Potential Complications

- Permanent weakness of the shoulder, particularly in lifting power and when working with the arm overhead
- Persistent pain in the shoulder
- Increasing weakness of the extremity
- Inability to compete at previous level of activity

Treatment Considerations

Initial treatment consists of rest from the aggravating activity in order to control symptoms and allow the nerve to recover. The nerve usually recovers spontaneously, although this may take from six months to one year. Performing shoulder range-of-motion exercises while waiting for nerve recovery is of paramount importance. Referral to a physical therapist or an athletic trainer may be recommended to begin strengthening the muscles once the nerve has recovered. Occasionally, a sling may relieve discomfort while the nerve is recovering. Surgery may be necessary after three to six months to explore the nerve if nerve function has not recovered. If treatment is not successful, surgery may be necessary to replace the lost function of the trapezius muscle with the function of another muscle. This surgery is considered a salvage operation; it is not meant to enable the athlete to return to sports, just activities of daily living.



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Possible Medications

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (**DO NOT** take within seven days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- Pain relievers may be prescribed by your physician, usually only after surgery. Use only as directed

Modalities (Heat and Cold)

- Cold is used to relieve pain and reduce inflammation. Cold should be applied for 15 to 20 minutes every two to three hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage with a cloth between the ice and your skin to prevent burning /freezing your skin.
- Heat may be used before performing stretching and strengthening activities prescribed by your physician, physical therapist, or athletic trainer. Use a heat pack or a warm soak.

Notify My Office If Symptoms Worsen

