

SCAPULAR WINGING

(SERRATUS ANTERIOR PALSY, LONG THORACIC NERVE INJURY)

DESCRIPTION

An uncommon nerve condition in the shoulder causing pain and occasionally weakness in the shoulder. It involves injury to the long thoracic nerve in the back near the shoulder blade. The long thoracic nerve runs from the neck along the chest wall to the serratus anterior muscle. The nerve can be stretched due to a fall on the shoulder while the neck bends toward the other shoulder, due to repetitive injury, or may occur without injury, sometimes associated with a viral illness. Injury to this nerve results in weakness of the serratus anterior muscle, causing the shoulder blade (scapula) to pull away from the chest wall with attempted shoulder movement called winging. The scapula is the base from which the shoulder functions. With winging, the shoulder works off a weak base, making shoulder function weak as well.

FREQUENT SIGNS AND SYMPTOMS

- Pain and discomfort (burning or dull ache) that is poorly localized, often in the back of the shoulder and/or shoulder blade
- Heaviness or fatigue of the arm.
- Loss of power of the shoulder
- Difficulty raising the arm above shoulder level
- Pain in the back when sitting in a chair with a high back due to the scapula hitting the back of the chair.
- Bump in the back of the shoulder (the scapula) that is more obvious when trying to do push-ups or reach forward overhead.

CAUSES

- Viral illness
- Repetitive stretch injury
- Fall onto shoulder with the head and neck stretched away from the shoulder.

RISK INCREASES WITH

- Contact sports
- Sports that require overhead throwing type activity, such as baseball, volleyball and tennis
- Poor physical conditioning (strength/flexibility)

EXPECTED OUTCOME

Usually complete spontaneous recovery within 18 months. Rarely surgery is necessary.

POSSIBLE COMPLICATIONS

- Permanent weakness of the shoulder, particularly lifting power, working with the arm overhead
- Persistent pain in the shoulder.
- Stiffness of the shoulder
- Increasing weakness of the extremity
- Disability and inability to compete

GENERAL TREATMENT CONSIDERATIONS

Initial treatment consists of rest from the offending activity and non-steroidal anti-inflammatory medications to help reduce inflammation and pain. The nerve usually spontaneously recovers, though this may take up to 12 - 24 months. Maintaining shoulder range of motion exercises while waiting for nerve recovery is of paramount importance. Referral to physical therapy and/or an athletic trainer may be recommended for further treatment, including ultrasound and other modalities. If this conservative treatment is not successful, surgery may be necessary to replace the lost function of the serratus anterior muscle with the function of another muscle. This surgery is considered a salvage operation...not meant to get the athlete back to sports, just pain-free activities of daily living.

MEDICATION

- Non-steroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take if surgery planned in 7 days or less), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact him/her immediately if any bleeding, stomach upset or an allergic reaction occurs.
- Pain relievers may be prescribed as necessary by your physician, usually only after surgery. Use only as directed and only as much as you need.

HEAT AND COLD:

- Cold is used to relieve pain and reduce inflammation for acute and chronic cases. Cold should be applied for 10 - 15 minutes every 2-3 hours for inflammation and pain, and immediately after any activity which aggravates your symptoms. Use ice packs or an ice massage.
- Heat may be used prior to performing stretching and strengthening activities prescribed by your physician, physical therapist or athletic trainer. Use heat pack or a warm soak.

NOTIFY OUR OFFICE IF

- Symptoms get worse or do not improve in 6 weeks despite treatment
- New, unexplained symptoms develop. Drugs used in treatment may produce side-effects.