

Scapular Winging



Scapular winging is a condition where the shoulder blade sticks out from a person's back. It is a rare condition that can have a big effect on day-to-day life. Read on to learn how this condition can be treated.

"Scapular winging is a condition that affects the shoulder blades, making them stick out instead of lying flat."

The scapula, also known as the shoulder blade, usually rests flat against the back of the chest wall. Scapular winging is when the shoulder blade sticks out instead of lying flat. It is a rare condition that can be painful and have a big impact on a person's day-to-day life.

The scapula's job is to provide an attachment point for the collarbone as well as the bones and muscles of the upper arm and shoulder. It is also involved in the movement of the arm and shoulder, such as with raising the arm. Several muscles and nerves stabilize the scapula against the back of the rib cage and make sure it moves properly. Examples are the serratus anterior muscle, which is controlled by the long thoracic nerve, and the trapezius muscle, which is controlled by the spinal accessory nerve.

Symptoms

The symptoms of scapular winging vary from person to person, depending on the underlying nerves and muscles affected. The classic sign of scapular winging is a person's shoulder blade sticking out. When this happens, it may be uncomfortable to sit in a chair or wear a backpack.

Scapular winging is often painful around the shoulder and at the base of the neck. People may feel a burning sensation around the shoulder blade.

Scapular winging can be highly debilitating in everyday life and particularly limiting for overhead activities, such as reaching into a high cupboard. If a person has scapular winging as a result of nerve or muscle damage, they may experience weakness and fatigue in their upper back, shoulder, and arm muscles, especially with overhead and lifting movements.

Causes

A winged scapula is a sign of abnormal function in the muscles of the scapula. This dysfunction can be caused by a problem with the nerve to the muscle or the muscle itself is affected by a disease, such as muscular dystrophy. In more mild forms of winging scapula or what's known as scapula dyskinesia, the scapula has a subtle abnormal movement, which compensates for a problem typically inside of the shoulder joint.

The most commonly injured nerve that causes scapular winging is the long thoracic nerve. Injury to the long thoracic nerve can be caused by a number of factors, including blunt trauma from a motor vehicle accident or fall. Repetitive movements in sports or everyday activities such as overhead work, digging, washing the car, and trimming hedges can also gradually cause scapular winging.

Some non-traumatic injuries that can result in scapular winging are:

- » Viral illnesses
- » Inflammatory diseases
- » Allergic reactions to medication
- » Exposure to toxins
- » Surgery causing injury to the nerve or muscle

Diagnosis

In order to diagnose scapular winging, your doctor will need to look directly at your shoulders and back for any signs of protruding shoulder blades. This is best done without a shirt on, so proper gowning will be provided.

During the exam, you will also perform a series of shoulder and arm movements to test for weakness and range of motion.

Often, scapular winging will be worse when pressing the arms forward against a wall. Dr. Romeo will also examine for muscle shrinkage around the shoulder and upper back and will press on the shoulder blade to stabilize it during movement.

Tests like electromyography (EMG) can help determine whether the condition is due to muscle weakness or nerve injury. Often, an MRI can be helpful to determine the status of the muscles related to scapula movement.

Nonsurgical treatment options

After getting a correct diagnosis, the first step in treating scapular winging from most nerve and muscle injuries is allowing the damage to heal. During this time, it's important avoid any activities that worsen the symptoms. During this time, physical therapy can help strengthen the muscles that help stabilize the scapula. Also, a shirt with reinforced support around the scapular or a brace may be worn to help keep the scapula compressed against the back.

Patients with a winged scapular due to long thoracic nerve palsy may take up to two years to resolve their condition. Patients should demonstrate a reasonable amount of progress within the first 6 to 12 months of recovery. If not, surgery may be the best option.

How surgery is performed

Split pectoralis major tendon transfer surgery is the recommended treatment for dysfunction of the serratus anterior muscle, most often caused by long thoracic nerve palsy.



"A winged scapula is almost always a symptom of damaged nerves that control the muscles in your arms, back, or shoulders."

During a split pectoralis major tendon transfer surgery, cuts are made on the front and back of the shoulder. A portion of the chest muscle (pectoralis major) is detached and transferred to the lower edge of the scapula. The transfer can be lengthened, if needed, using a tendon graft. The transfer is inserted into small holes drilled into the scapula and sewn in place. The extra support from the pectoralis muscle and tendon graft helps keep the shoulder blade flat when the arm is raised.

If a split pectoralis major tendon transfer does not solve the problem, in rare situations, Dr. Romeo may recommend a scapulothoracic fusion. This procedure involves attaching the shoulder blade directly to the back of the rib cage.

Recovery time

Patients typically experience the worst pain in the first one to two weeks after surgery. Dr. Romeo will give you post-op pain management advice to guide you through your recovery. By two weeks, patients manage any pain with over-the-counter medications.

Following surgery, you will be placed in a sling for six weeks to allow the tendon to heal in its new location and protect it from injury. After six weeks, the sling is discontinued and physical therapy begins.

Results

Following surgical treatment, most patients will recover the ability to perform activities of daily living and light recreational activities by six months. Full recovery from the procedure can take up to one year after the operation.

Want to learn more? Find relevant videos, animations, and research material related to this procedure at romeoorthopaedics.com. →



For more information about scapular winging, please request an appointment with experienced Chicago orthopaedic surgeon Dr. Anthony Romeo.

Please visit our website to find out how to schedule your appointment.