

Multidirectional Shoulder Instability and Capsulorrhaphy



Multidirectional shoulder instability usually happens because of a combination of a naturally loose shoulder combined with a sports injury, an accident, or overuse.

"If the shoulder doesn't heal properly, this can cause repeated instability over time."

Multidirectional shoulder instability has several causes. It is most common in young athletes participating in overhead sports.

Symptoms

When a shoulder is unstable, it might feel unstable at mid-range range-of-motion movements.

Unlike traumatic instability, these moments of instability are sometimes painful, but not always.

Multidirectional instability can also cause:

- » Pain and/or instability when handling heavy objects, performing overhead activities, and during or after exercise
- » Instability while sleeping on the affected side
- » Hesitancy to put the shoulder in certain positions
- » Tingling sensations and numbness in the arm
- » Clicking and/or popping sensations during movement

Causes

Shoulder instability happens for the following reasons:

- » A naturally loose shoulder—in this case, the soft tissues (labrum and capsule) are repeatedly stretched and can no longer support or stabilize the shoulder
- » The primary dynamic stabilizer of the shoulder is the rotator cuff. If the rotator cuff is overused, becomes fatigued, or injured, it causes pain and instability.
- » Chronic overuse during athletic or occupational activities—even athletes without a history of shoulder dislocation may complain of instability

Inside your shoulder

In order to understand multidirectional shoulder instability, it's important to understand how your shoulder works.

Ligaments = static stabilizer or checkrein to shoulder motion and stability

Rotator cuff and cup of socket = the dynamic stabilizers that hold the shoulder together for most activities of daily living. The primary stabilizer of the shoulder is actually the rotator cuff compressing the humerus into the glenoid.

Diagnosis

In order to diagnose multidirectional instability, a thorough medical history and physical exam are essential. The hallmark of multidirectional shoulder instability is instability in two or more directions. It always slips out the bottom (inferior) of the socket, as well as either the front of the shoulder, the back of the shoulder, or, in rare cases, or both the front and the back of the shoulder.

Doctors will also look for signs that patients have generally loose joints and connective tissue. Other conditions can mimic this problem with similar symptoms, so x-rays, MRIs, or CT scans of the shoulder may be used to rule them out.

Treatment options

Initially, shoulder instability can be treated conservatively with

- » Rest—namely avoiding the triggering activity
- » Activity modification

- » Physical therapy
- » Anti-inflammatory medication

Physical therapy

All patients are advised to try physical therapy as a first step. It is helpful in the majority of cases of shoulder instability and it is important to master, since surgery cannot fully restore stability in 20% to 30% of patients.

The goal of therapy is to strengthen muscles that support the shoulder joint, including the essential rotator cuff muscles (supraspinatus, infraspinatus, subscapularis, and teres minor), the biceps, and the deltoid. Furthermore, the muscles that position and stabilize the scapula (shoulder blade) are also critical for dynamic stability of the shoulder. In patients who cannot maintain proper positions of their scapula, strengthening of the rotator cuff may not be able to keep the shoulder stabilized. Strong muscles help fortify tendons, ligaments, and cartilage so they can hold the components of your shoulder joint in place across a wide range of motions. Typically, patients who are conscientious about following a physical therapy program for at least six months have a 90% success rate in reducing or eliminating pain caused by shoulder multidirectional instability.

In some cases, a new electrostimulation device may be useful in managing this condition. The Shoulder Pacemaker EMS is an innovative wearable electrostimulation – helps patients learn how to dynamically stabilize their shoulder.

How surgery is performed

If the stability of your shoulder does not improve with a good course of physical therapy, the next step is evaluation by a surgeon. For chronic instability, surgery may be the best option.

A capsulorrhaphy is a surgical procedure that repairs and tightens the shoulder capsule (the connective tissue encircling shoulder) to help stabilize the ball and socket joint. It does so by tightening the ligaments and capsule around the shoulder joint.

An arthroscopic capsulorrhaphy is a minimally invasive procedure done through small incisions.



“Athletes—especially swimmers and overhead throwers—need to weigh the benefits and risks of this solution because increased shoulder stability is achieved at the expense of range of motion.”

One incision is used for a tiny camera (arthroscope), while the others are used to insert surgical tools and instruments that are used for the repair. The capsule surrounding the entire shoulder is repaired using a construct of small stitches, which then tighten the capsule by being anchored down to the rim of the socket (glenoid).

Recovery time

Following surgery, you'll be sent home in a shoulder brace. This unique brace immobilizes the shoulder and will need to be worn for six weeks as the tissue around the joint heals. Dr. Romeo will give you specific instructions for post-op pain management. You will be advised not to play any contact or overhead sports for at least six months after surgery.

Results

After six weeks, your shoulder will likely be strong enough to begin a course of light exercises. Expect to stick to your physical therapy routine for at least the first year. Approximate recovery time is six months and this surgery has a high satisfaction rate but 1 in 3 athletes will not be able to return to back to the same level of performance that they were capable of before their shoulder instability problem began.

FAQs

Is a capsulorrhaphy procedure appropriate for athletes?

Athletes need to weigh the benefits and risks of this solution because increased shoulder stability is achieved at the expense of range of motion. After surgical recovery, the average loss of motion is about 10 degrees with external rotation. If you do not use this arm or throw or hit a ball, some loss of motion will not prevent you from returning to your sport.

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



For more information about shoulder multidirectional instability, please request an appointment with experienced Chicago orthopaedic surgeon Dr. Anthony Romeo. **Please visit our website to find out how to schedule your appointment.**