

Shoulder Dislocation



Half of patients who experience a shoulder dislocation are at risk of having another one. The good news, however, is that with proper treatment, that risk can be reduced.

“A shoulder dislocation happens when a shoulder sustains a great force.”

The shoulder is the most mobile joint in the body. It consists of a ball formed by the top part of the arm bone (humeral head) and a shallow socket (glenoid) formed by the shoulder blade that allows full motion—in fact, more motion than any other joint in the body!

To stabilize the shoulder, our shoulder socket has a rim of fibrocartilage known as the labrum or “lip” of the socket. The labrum helps to deepen the socket and also acts as a bumper to prevent the humeral head from slipping out of place. Four muscles—the rotator cuff muscles—also surround the shoulder and work together to keep the shoulder joint stable. When a shoulder dislocates, it overcomes all these natural barriers.

The shoulder can either dislocate to the front (anterior dislocation) or the back (posterior dislocation), but more than 90% of dislocations are anterior. As the shoulder dislocates, it may tear a segment of the labrum and some of the ligaments surrounding the shoulder. Usually, a small amount of bone and cartilage are also damaged.

With certain high-impact activities—such as rugby, snowboarding, or motocross—the injury to the bone and cartilage can be severe and require more immediate surgery. Furthermore, patients over the age of 40 have a higher chance of developing a rotator cuff tear during a shoulder dislocation than their younger peers, and for them, surgical treatment may be needed early to provide the best outcome.

Symptoms

A dislocation can cause tearing and stretching of the shoulder’s ligaments, damage to the cartilage and bone, as well as injury to the tendons and muscles with more severe dislocations. No wonder it’s so painful!

Common symptoms of shoulder dislocation include:

- » Pain
- » A feeling of instability
- » Apprehension to move the arm away from the body
- » Weakness
- » Numbness
- » Swelling and bruising

Causes

A shoulder dislocation happens when a shoulder sustains a great force. A big impact can overcome the stabilizing effect of the cartilage rim, ligaments, and muscles surrounding the shoulder, causing the shoulder to come out of its proper alignment. Dislocations can happen because of:

- » A fall, such as from a ladder or tripping over furniture.
- » A sports injury from contact sports such as hockey, football, rugby, or lacrosse, or from a fall during skiing or gymnastics.
- » Blunt force trauma from a hard blow, such as during a motor vehicle accident.
- » Seizures, which can increase the risk of posterior dislocations

Diagnosis

During your visit with Dr. Romeo after a shoulder dislocation, he will:



“You should be able to begin movement and limited use of your hand, wrist, and elbow the day after surgery.”

- » Examine the shoulder to check for pain and sensation
- » Measure range of motion
- » Make sure that the main muscles of the shoulder are working
- » Assess the looseness of the shoulder

Depending on the direction of the dislocation, the person may be unable to move their arm. In some cases, the nerves surrounding the shoulder may be stretched and this can cause a combination of weakness and/or numbness in the area.

When assessing a shoulder dislocation, one special clue is the loss of the ability to rotate the arm outwards from a handshake position. If this is found on examination, it means either:

- » The rotator cuff is torn
- » One of the main nerves to the shoulder is damaged, or
- » There is a posterior dislocation of the shoulder.

These findings can change the type of surgery a person may need.

X-rays are also important in ruling out other conditions, such as a shoulder fracture, and they usually confirm the direction of the dislocation. In younger patients where the injury is typically confined to the labrum, cartilage, and bone, the preferred study is a CT scan to evaluate the amount of bone injury. However, in older patients or when there is concern that a rotator cuff injury is present, an MRI scan is valuable to check the integrity of muscles and tendons.

Nonsurgical treatment options

In sports, the initial management of a shoulder dislocation is usually done on the field or locker room, followed by an evaluation in an emergency department to get x-rays to assess for bone loss.

If the reduction is not done within 30 minutes of injury, it may be necessary to provide pain medications and sometimes a numbing injection to the shoulder, to gently put back (reduce) the shoulder joint to its normal position. In rare cases, the reduction may have to be done in the operating room with controlled sedation so that complete relaxation of the muscles is possible.

After the reduction, a sling with a wrap around the patient's waist is placed to stabilize the shoulder and prevent it from moving into a position that could allow it to dislocate again. Based on the history of what caused the dislocation, the severity of the injury, and the physical examination findings, physical therapy may be prescribed.

Depending on the amount of damage from a shoulder dislocation, recurrence is likely, which increases the likelihood of requiring surgery down the line. Mainly due to sports injuries, men under 30 have a very high chance of having recurrent shoulder dislocations and therefore may elect to have the shoulder surgically stabilized even after one dislocation. This allows them to get back to their sport quickly and to avoid early arthritis. The more times the shoulder slips out of place, the more damage is done to the shoulder joint. While physical therapy may help some patients, a good percentage of patients go on to dislocate their shoulder again.

In fact, if you follow patients who presented to the emergency department with a dislocation, more than 50% will have another dislocation some time in their life, and more than 75% of men under 30 years of age who return to sport will have additional dislocations. If shoulder pain and instability continue to happen, it becomes difficult to achieve the level of performance that was possible before the injury without surgical repair.

How surgery is performed

There are a number of surgical options that can be used to successfully treat shoulder dislocations. These options include:

- » **Bankart Repair.** A Bankart repair is a procedure in which the torn tissue (labrum and capsule) is sewn back to the socket rim. This procedure is done arthroscopically (via keyhole surgery), using special instruments, stitches, and tiny anchors to connect the torn tissue back to the socket. It is often used in younger athletes with their first dislocation, where there is minimal bone damage.
- » In addition to the Bankart repair, the dislocation may result in a depression in the humeral head (Hill-Sachs lesion) which can increase the risk of recurrent shoulder dislocation. In conjunction with the Bankart repair, a Hill-Sachs lesion may require an additional procedure to secure the capsule into the bone defect, which is called Remplissage. This procedure increases the chance of long-term stability of the shoulder.
- » **Latarjet Procedure.** The Latarjet procedure is used when there is damage to the bone of the shoulder socket. It involves taking a small piece of the shoulder blade or scapula bone (specifically, the coracoid) and fixing it to the front edge of the socket to restore the missing bone from this area. The bone is fixed with two screws and sometimes a tiny metal plate. Attached to this piece of bone

are two small tendons that reinforce the stability of the shoulder. Finally, the labrum and capsule in this area are repaired with stitches.

- » **Distal Tibia Allograft Procedure.** In some patients with recurrent shoulder instability, the use of a bone and cartilage graft (a distal tibia allograft) may be the best choice. This procedure works well when the bone loss is significant or when patients have had a Latarjet procedure that did not alleviate their symptoms. The graft is fixed to the socket with two screws and, occasionally, a tiny metal (titanium) plate.

Although the second two procedures are more invasive than the arthroscopic Bankart repair, recipients of all three show similar pain relief from medications, ability to move the elbow, wrist, and hand without difficulty, and the resumption of daily activities within a few days of the procedure. Full recovery is also similar across all the surgeries, with return to activities without restrictions by six months post-op.

Recovery time

Generally after shoulder stabilization surgery, four weeks of rest and protecting the surgical site is an effective balance between letting the tissue heal and avoiding too much stiffness of the shoulder. You should be able to begin movement and limited use of your hand, wrist, and elbow the day after surgery. It is important to continue to wear the sling even during sleep to prevent accidental injury and disruption of the repair. In rare cases, such as overhead throwing athletes, early movement may begin within a few days of surgery.

Dr. Romeo will give you specific instructions for post-op pain management. Fortunately, most people who are not taking pain medications before surgery are able to discontinue pain medications three to five days after surgery, even if the procedure includes bone. Also, within the first five to seven days, the surgical arm can be used to feed yourself, bathe, and assist with getting dressed, as long as the arm remains by your side.

Results

After four weeks, the sling can be removed and protected motion as well as light stretching will

be introduced. For people who have very loose joints and elastic tissue, the sling protection may be extended to six weeks after surgery. At this point, you will begin physical therapy, which is key to a successful outcome. At six weeks post-op, a light strengthening program will be implemented, beginning with isometric exercises, then TheraBand exercises, and finally lightweight training.

A full recovery is expected by four to six months, however in some severe cases or when returning to high-level sports or physical work, a full recovery of strength and function may not occur for nine months to a year. Remarkably, return to collision or contact sports is occasionally faster (as short as four months) after the Latarjet procedure when compared to the arthroscopic Bankart repair, which often takes six months.

The good news is that when you have a surgical procedure that is ideal for stabilizing your shoulder, whether it is the arthroscopic Bankart, Latarjet, or distal tibia allograft, and then follow through with a carefully planned and integrated rehabilitation program, the risk of dislocating your shoulder again is less than 5%.

Following these surgical procedures, a high percentage of athletes and workers with physically demanding jobs will be able to return to their pre-injury level of performance. If there is a future dislocation, it is almost always a result of another serious injury that would have caused a full dislocation in a normal shoulder.

FAQs

Why is shoulder dislocation so painful?

When your shoulder dislocates, it is not simply a matter of the ball-like humeral head popping out of the socket. A dislocation usually happens as a result of a sudden traumatic injury to the shoulder and arm. The movement of the humeral head coming out of its socket joint tears, separates, and stretches the surrounding ligaments, cartilage, and muscles. The intense pain you feel is an indication of how significant the damage can be.

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



For more information about treatment options for shoulder dislocation or 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.**