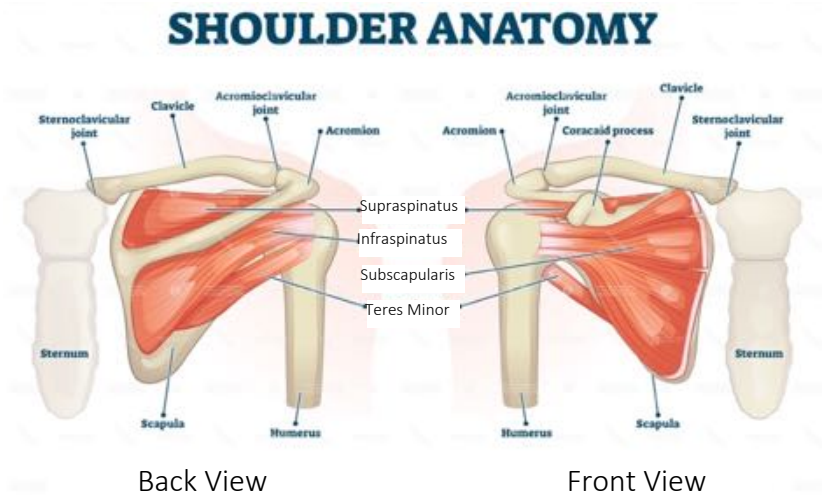




## Anatomy of the Shoulder

The shoulder is a ball and socket joint and is the most mobile joint in the human body. There are three bones that make up the shoulder: upper arm bone (**humerus**), shoulder blade (**scapula**) and collarbone (**clavicle**). There is a suction cup like structure around the socket (glenoid) called the **labrum** that also helps to provide stability.

The rotator cuff is a group of 4 muscles that support the shoulder. It consists of the supraspinatus, infraspinatus, subscapularis and teres minor. The rotator cuff is the primary stabilizer of the joint during any movements of the shoulder.



## What is a shoulder dislocation and subluxation?

A **dislocation** is when the head of the humerus (ball) is forced out of the socket completely while a **subluxation** is when the ball only partially comes out of the socket. A dislocation or subluxation can result from a sudden traumatic event or repetitive strain. However, some people may have this occur without injury or repetitive strain. In these cases, it is usually due to laxity of the ligaments in the shoulder (i.e. being 'double-jointed') and/or the inability of the muscles to stabilize the joint. In general, the shoulder will dislocate anteriorly (out the front of the shoulder), but it can also go posteriorly (out the back), inferiorly (downwards) or a combination of any of these directions. Once a shoulder has dislocated, it is more vulnerable to recurrent dislocations.

Often the shoulder will go back in place on its own (reduce) however in some situations a physician or other health care provider may need to put it into the correct position. Damage to the soft tissues (ligaments, tendons and labrum) can occur with a dislocation as well as fractures of the ball and socket joint or injury to the nerves.

## Assessment

A detailed history and assessment can help determine the nature of your shoulder instability and treatment plan. Depending on your presentation, your healthcare professional will determine if and what imaging may be necessary, with the first step generally being an x-ray. Further imaging may involve an MRI or MRA, and CT scan. These types of imaging can be helpful when surgery is being considered.

## Treatment Options

Instability is typically treated with non-surgical options first. It can take a minimum of 3-6 months of rehabilitation to tell how well it is working. Non-surgical options include:

**Activity Modification** - This is a protected range of motion where your shoulder feels stable. They are divided into categories depending on the direction of instability.

- Anterior Instability (the most common type of instability pattern)
  - Avoid the reaching away from your body out to the side, especially overhead (also known as external rotation in abduction). Some examples include throwing and sleeping on your stomach with your arm overhead. Also avoid hanging exercises or positions that traction the shoulder.
  - Avoid movements that involve taking your elbows behind the plane of the body or reaching behind you. Examples of this include reaching into the rear seat of your car and triceps dips.
- Posterior Instability (Less common type of instability)
  - Avoid reaching above shoulder level (especially with weight) and reaching across the body. Examples of this include bench press, overhead press and a cross body stretch (i.e. putting deodorant on).
  - Avoid exercises that involve weightbearing through the arm. For example, planking or pushups.
  - Also avoid hanging exercises or positions that traction the shoulder

**Physiotherapy** – Physiotherapy and home exercises are the most important part of your treatment plan. Seeing a physiotherapist is important to identify your specific limitations and functional goals as well as to oversee your exercise program intermittently. Your program will include:

- Progressive Strengthening and Posture Re-Education Program – This will focus on the muscles around your shoulder blade, rotator cuff and deltoid as well as core strengthening. Exercises to re-train the coordination of your muscles ('proprioception') will also be included.
- Manual Therapy may be included to address any mobility impairments in the neck, back or shoulder – however the focus will remain on the strengthening program and education on activity modifications.

**Surgical Treatment** - If non-surgical treatment is not successful or if your physician feels that surgery is a better course of treatment, surgery can be performed to repair the damaged structures. In this case, advanced imaging may be considered. The type of surgery depends on a number of factors including the nature of your instability, the number of instability events and the results of your advanced imaging. Surgery is generally a day surgery. Patients are generally in a sling for 4-6 weeks and require 6-8 months of rehabilitation after the surgery.

For more information, check out the resources on our website!



[www.accessorthopaedics.ca/patients](http://www.accessorthopaedics.ca/patients)

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