Shoulder Dislocation

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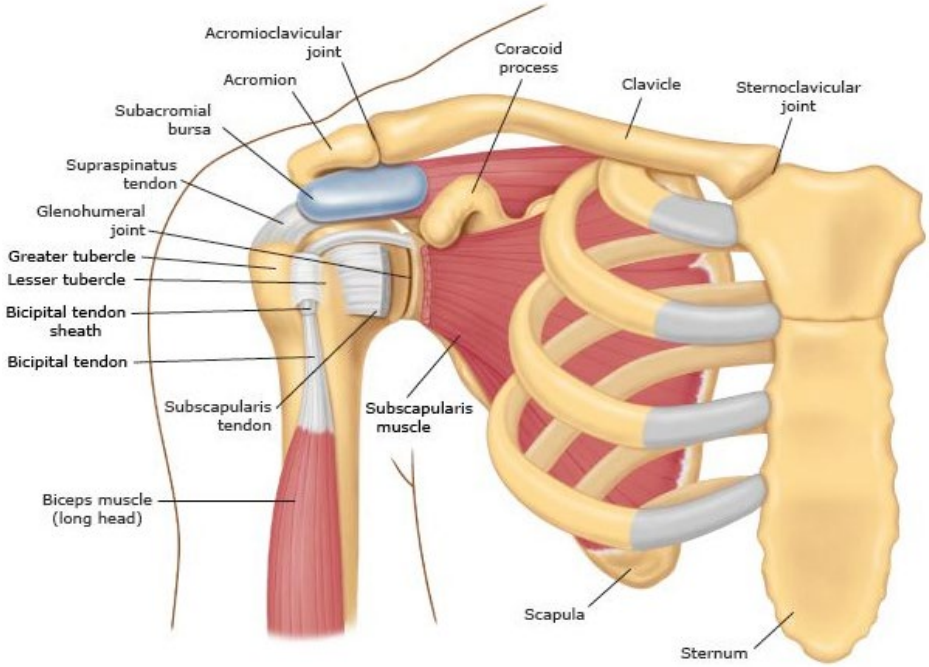
What is it?

The shoulder joint or glenohumeral joint is a ball and socket joint made up of the arm bone and a shoulder socket. A dislocation occurs when the arm bone is ripped out of the socket. See Figure 1 below for an X Ray photo of such a dislocation.



What are the symptoms?

Extreme pain and a sensation that the shoulder has popped out are the most common symptoms. The arm will probably look visibly different to the other side. Extreme pain will probably be present until the shoulder reduces ie. pops back in.

Sometimes the shoulder will dislocate and immediately pop back in. This sensation will be a very sharp pain and the feeling that the shoulder is loose and has slid out of the joint and back.

Go online for more information

http://www.youtube.com/watch?v=5WX8EA_48kk

How did I get it?

The shoulder is the most mobile joint in the body. The socket that the ball sits in is quite shallow, and needs to be, to allow free movement of the arm. For this reason the shoulder relies heavily on soft tissue rather than bone to hold the joint together. A dislocation occurs when the forces acting on the shoulder are so great that they overcome the supporting soft tissues ie. cartilage, ligament and muscles/tendons. There are two main causes of instability in the shoulder, traumatic and atraumatic. The management of each may be quite different.

Traumatic is where an extreme force is placed on a normal shoulder. The most common mechanism is getting caught with your arm out to the side or above your head. The force is transmitted through the shoulder joint with the arm acting as a lever increasing the force.

Atraumatic is where the soft tissues are loose and do a poor job of holding the shoulder together. This typically occurs in quite flexible young athletes. Watch the accompanying video to see a typical mechanism of this injury.

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What should I do?

Shoulder injuries are serious. If the shoulder does not reduce / pop back in by itself very quickly you will need to attend an emergency department or doctor immediately. The longer it takes to seek attention the more the muscles spasm and the more difficult it is to put the shoulder back into the joint.

Usually field-side its relocation is relatively easy. If you cannot see your local doctor within 30 minutes you should attend the emergency department as the muscles will become so tight that you may need sedative medication to relax the muscles enough to pop the shoulder back in.

You should not try to relocate the shoulder yourself. If it is not done properly, damage to other structures within the shoulder joint area is possible. This may make the injury worse and prolong the rehab.

Figure 1 An X - Ray indicating a shoulder dislocation. The ball and socket of the shoulder is clearly visible.

How is a diagnosis made?

A diagnosis is made clinically. X-rays will always be performed after the shoulder has been put back in but are often performed before hand also. This is done to confirm that the shoulder is dislocated and to rule out an associated broken bone. An MRA is often done later to assess the labrum or rotator cuff.

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What does rehab involve?

How rehab is performed depends on your likelihood of re-injury which is very strongly influenced by your age and physical aspirations. There are three main groups with very different outcomes. Under 20 years of age, between 20 and 40 and over 40.

If you are under 20, your likelihood of re-dislocation is extremely high. Published studies range between 70-100%, but in athletes who are hoping to return to high level contact or throwing sports the rate is actually close to 100%. This is because young people are generally more flexible and have slightly different collagen in their ligaments. If you are under 20 you are more likely to need surgery to stabilize the shoulder so that it doesn't pop back out again – you should seriously consider having early surgery after your first dislocation. It may be possible though to continue playing throughout the season and opt for end of season surgery. If surgery cannot be performed, focussing on strength training is critical.

If you are over 40, the likelihood of re-dislocation is quite low. When you are over 40 you are more likely to tear the tissue rather than stretch it and more likely to develop scar tissue. This may leave you with a stiff shoulder rather than one that will continually pop back out. The rate of re-dislocation when you are over 40 is 10-16% - This is partly because of the aforementioned issues with tissue but also partly because someone over 40 is more likely to give away the sport which caused the problem in the first place. Someone who is over 40 should consider starting intense rehab early.

If you are between 20 and 40 the data is not as clear. One study found a re-dislocation rate of 60% but the likelihood of re-injury is largely dependent upon the specific injury and your return to sport goals.

Use of a sling

Slings are for comfort only and do not help rehabilitation at all. There is no need to wear a sling for 6 weeks after a shoulder dislocation. You can come out of the sling as soon as you feel comfortable and start physiotherapy.

Physiotherapy

Physiotherapy in a young person should focus on strengthening the tissue as young people tend to have less of a problem getting their range of motion back. As the ligaments are stretched and torn they are insufficient to hold the joint in place. To make up for this lack of stability from the ligaments it is important to focus on strengthening the muscles to try to compensate. Focussing on stretching may aggravate the main problem and further stretch the ligaments and capsule which are already too loose.

Physiotherapy in a person over 40 should focus on returning function and range of motion activity as they are more likely to end up with a stiff shoulder.

Braces

An external rotation brace may be useful if you are young with a high risk of re-injury but cannot have surgery due to economic factors. Some studies show that it is more effective than a normal sling or even early physical therapy, but is less effective than surgery. The external rotation brace though is very cumbersome and usually not well tolerated. It can be considered in a young person who needs a stable shoulder but who cannot have surgery, or would like to try everything to avoid surgery initially.

Do you have a question? Email info@sportsclinicnq.com.au