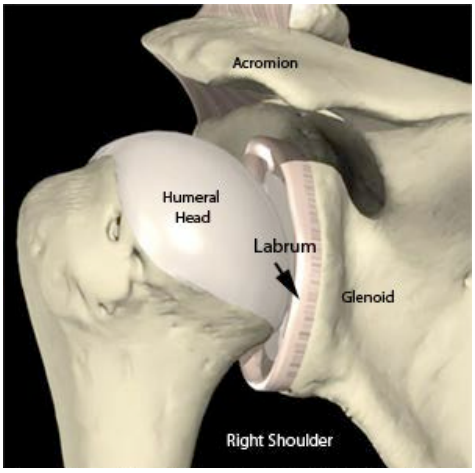
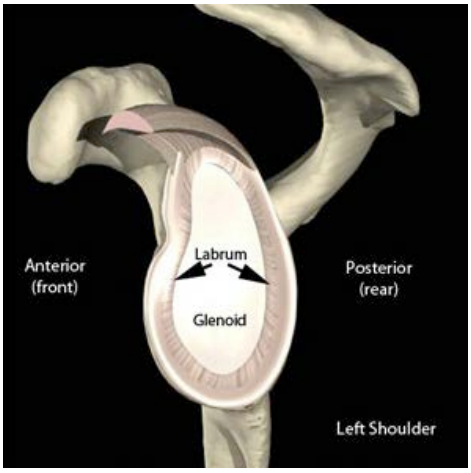
Traumatic shoulder instability

The ball of the shoulder joint sits against its shallow socket (glenoid) like a golf ball on a golf tee. This arrangement allows for a huge range of movement in the shoulder, but is inherently unstable – imagine what happens to the ball when you tip the golf tee on its side. The shoulder joint is kept in place by the action of the shoulder muscles, the capsule and most importantly, a thickened rim of fibrocartilage called the labrum.





Shoulder instability occurs when the head of the humerus is forced out of the shoulder socket, usually as the result of significant trauma, such as a car accident, fall, rugby tackle, skiing wipeout, or other misadventure. The injury may cause the shoulder to completely dislocate, where the ball comes completely out of joint and gets stuck; or subluxates, where it goes out of place, but then pops back in by itself.
When the shoulder dislocates, the structures that were holding it stable, especially the labrum, can get torn. This places the shoulder at increased risk of further dislocations.

What are the chances of further dislocation?

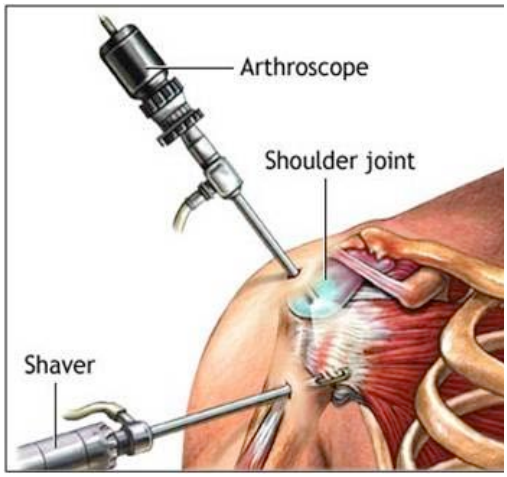
If you are less than 20 years old and active, your risk of further dislocation is estimated as up to 90%. Your chances of recurrent dislocation decrease if you are older, or if you do not play contact sports. By 30-40 years old, the rate of recurrent dislocation is about 30%.

How is shoulder instability treated?

Generally, a single traumatic dislocation is managed with a rehabilitation program and gradual return to activities, but there are some exceptions to this. In particular, for a young athlete, who competes in a high-demand or collision sport, a strong argument can be made for surgical stabilization, as the rate of recurrent instability in this group is very high. Once patients reach their 30s, the risk of recurrent dislocation drops sharply and non-operative management is the first-line treatment.

If you have ongoing recurrent instability, then the treatment of choice is shoulder stabilization surgery.

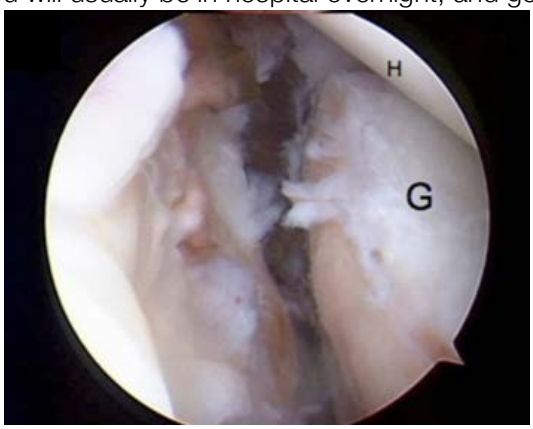
SURGICAL TREATMENT

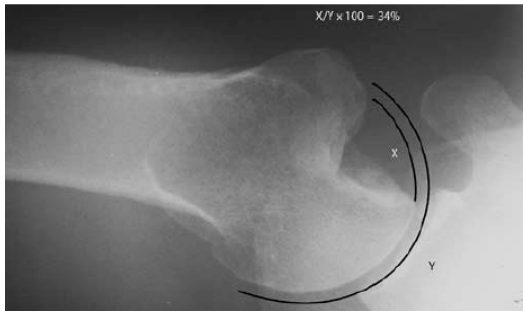


This is usually performed as an arthroscopic procedure under general anaesthetic.
Two or three small puncture wounds are made. The joint is thoroughly examined with a fiberoptic scope connected to a television camera.
Small instruments are used to place anchors into the bone and these are used to secure the labrum back down to the to the glenoid. The loosened capsule is also tightened up if required.

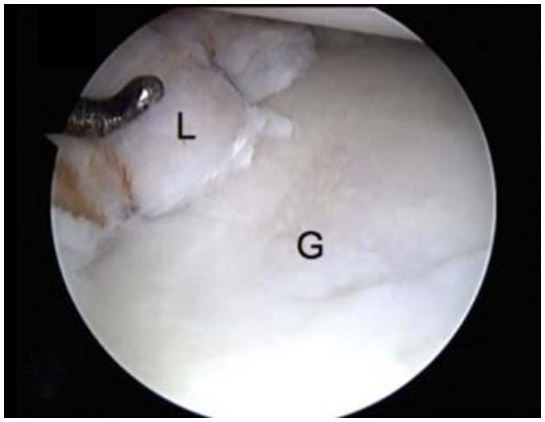
Occasionally, the dislocation causes a breaks a piece of bone off the socket (called a bony Bankart injury), or puts a impact defect into the ball (a Hill-Sachs injury). If this is suspected, we will arrange a CT scan of the shoulder. These kind of injuries can require different surgical techniques to prevent redislocation. If these are required, we will discuss the details of the treatment with you as part of our pre-surgery information.

At the end of any procedure, your arm is placed in a special immobilizer sling to protect the repair. You will usually be in hospital overnight, and go home the next day.





arge Hill-Sachs injury on x-ray



Torn labrum off the glenoid cup (G) with the humerus (H) above.

WHAT ARE THE RISKS OF SURGERY?

All surgical procedures have some element of risk attached. The likelihood of a life-threatening surgical complication, or damage to major blood vessels or nerves is very rare and unusual. The procedure does require a general anaesthetic, with the associated risks and concerns.

The most common and important risks of arthroscopic instability surgery that have been reported are:

Recurrent instability: 10-15%
Return to sports carries the risk of further instability episodes, usually occurring between 1-5 years after surgery. These may lead to ongoing recurrent instability, requiring further surgical stabilization.

Infection: less than 0.5%
This is usually superficial in the wounds and is easily treated with antibiotics
Rarely the infection can be deep inside the joint and this requires surgery to wash the joint out.

Nerve damage: less than 0.1%
The axillary nerve runs close to the bottom of the joint and, if damaged causes weakness of the deltoid muscle and difficulty in raising the arm.

Stiffness: 1%
The shoulder will occasionally become stiff after surgery and this usually settles with physiotherapy. Rarely the shoulder can become very stiff and require manipulation or arthroscopic release surgery. This risk is higher if you have diabetes or previous frozen shoulder problems.

Arthritis: up to 40%
This is not a risk of surgery as such, but a consequence of instability. The joint surfaces are damaged by the instability. Stabilization surgery limits further damage, but cannot reverse the injury that has already occurred. This risk refers to the development of x-ray changes of *some, usually mild, arthritis.* It does not mean you will be disabled or need further surgery in later years.

REHABILITATION

The proper rehabilitation of your shoulder after instability surgery is essential for the success of your treatment. Your surgeon and physiotherapist will advise you on the specifics of your rehabilitation, but the ultimate responsibility to exercise consistently is yours.
In general terms, you will in a sling for 4 weeks, followed by about 6 weeks of gentle movement exercises, then 3-6 months of strengthening.

WHEN CAN I RETURN TO DRIVING, WORK OR SPORT?

You can get back to driving once you have good control of your arm. If driving a manual car, it may take 4-6 weeks to get back to driving. Usually you are able to drive an automatic car within 2-4 weeks.

You should be able to get back to sedentary work within a week or two, but return to heavy physical jobs can take 3-4 months.

Return to aerobic, non-contact fitness sports (jogging, cycling) can begin after 3-4 weeks, although you can get on an exercycle after 1 week or so. Racquet sports training can begin after about 8 weeks for ground strokes, 3 months for overhead. A minimum of 6 months is usually required before returning to contact sports, although sport-specific training can begin before that.