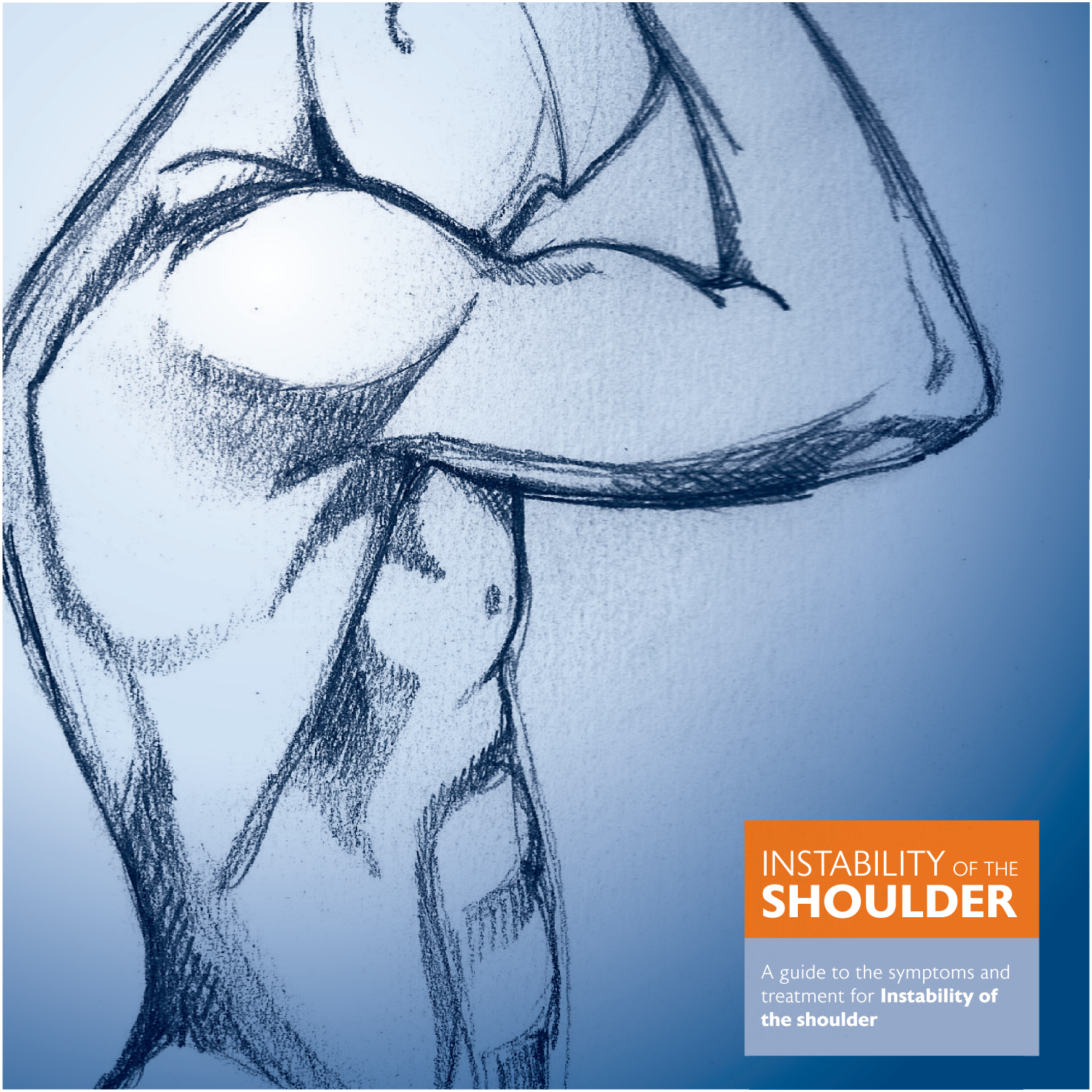


INSTABILITY OF THE SHOULDER

A guide to the symptoms and treatment for **Instability of the shoulder**

INSTABILITY OF THE SHOULDER

The shoulder is the most commonly dislocated joint in the body; this is because it is a ball and socket joint, designed to allow a large amount of movement.

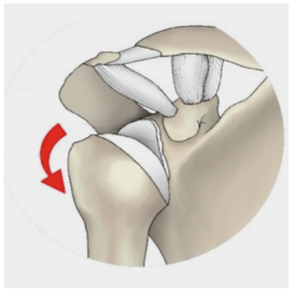


Diagram showing direction of most common dislocation, anterior–inferior, and the position of the labrum.

Instability of the shoulder

The stability of your shoulder joint is dependent on the condition of the following parts:

- the joint
- the labrum
- the capsule and ligament complex
- the rotator cuff muscles.

Alteration of these structures can result in the ball and socket not moving normally against each other. You may feel the ball slip, catch or come out of the joint. These symptoms are known as ‘instability’.

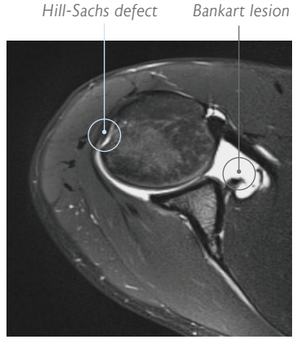
How do these parts contribute to instability?

The joint is comprised of two bones, the humeral head (ball) and glenoid (socket). The joint may be damaged during a dislocation, making the shoulder less stable.

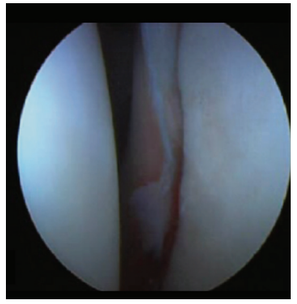
The labrum is a cartilage structure that increases the depth of the socket. If your labrum stretches or tears, your shoulder can become less stable.

The capsule and ligament complex is a soft tissue envelope that holds the ball and socket together. A stretched or torn capsule/ligament can contribute to shoulder instability.

The rotator cuff muscles are a group of small muscles that help maintain the alignment of the ball in the socket during movement. If these muscles become weak or damaged the shoulder can become less stable.



MR arthrogram showing a Bankart lesion and Hill-Sachs defect



Arthroscopic picture of shoulder showing detached anterior Labrum (Bankart Lesion)

What are the different types of shoulder instability?

Shoulder instability ranges from the joint slipping (subluxation) to a complete dissociation of the joint surfaces (dislocation), which is more likely to damage the structure of the shoulder. Dislocation and subluxation can occur in the same shoulder. There are two main types of shoulder instability: traumatic and atraumatic.

Traumatic instability

This is when your shoulder is forced out of joint through contact. Other structures around the shoulder, such as nerves and muscles, can also be damaged when this happens, particularly if you are older.

Usually the ball is forced forward and down. Commonly the ligament at the front of your shoulder over-stretches and can pull part of the rim of cartilage off the socket. Cartilage detached in this way is called a 'Bankart lesion'. This is sometimes detectable through an MRI scan, but it may only be visible when the surgeon looks inside your shoulder during surgery.

As the ball is forced out of the socket, the back of the ball can become dented from striking the front of the socket. This is known as a 'Hill-Sachs lesion'.

Structural damage makes instability more likely to recur, usually when your arm is out to the side and twisted backwards.

Atraumatic Instability

This is not caused by a specific accident. Instead, your joint gradually begins to feel unstable, perhaps due to specific, repetitive arm movements such as throwing or swimming. In some cases people are born with 'loose joints', which later become problematic as they start to slip or dislocate through everyday activities.

In atruamatic instability the ball can slide forwards (anterior), backwards (posterior) or downwards (inferior). Sometimes it slides in more than one direction and in both shoulders.

In atruamatic and traumatic instability an MRI scan is often used to assess the level of structural damage.

How can shoulder instability be treated?

The treatment you are offered will depend on the type of instability that applies to you. However, in some cases, it is not clear whether the instability is traumatic or atraumatic as they can overlap.

If your instability is traumatic and the joint is stiff or the muscles weak when tested, we may suggest physiotherapy. But if your movement is good and your muscles are working well, but the joint is still dislocating or slipping and affecting your day-to-day activities, we might recommend surgery.

This surgery is known as a stabilisation. It may be performed as arthroscopic (keyhole) or open surgery. The aim of the operation is to improve your shoulder's stability by repairing the torn labrum. In some cases bone problems may also need to be addressed.

Fifty percent of people who develop traumatic instability will need an operation to stabilise the joint. The operation has a high success rate, with approximately 90% of patients having no further instability.

Surgery carries a low risk of problems, including infection, stiffness, neurovascular injury (damage to nerves and blood vessels), and failure to resolve the problem.

Patients with atraumatic instability are best treated with physiotherapy. Surgery can be used in severe cases but the success rates are much lower than with traumatic dislocations.

Loss of bone from the front of the glenoid can be replaced by transferring bone from another site such as the hip (iliac crest bone graft) or coracoid bone on the shoulder blade (Bristow or Latarjet procedure). Severe loss of bone from the humeral head (Hill-Sachs lesion) can be filled with soft tissue (remplissage), bone graft, or a metallic replacement.

What to expect after surgery?

The operation is usually carried out using a combination of a general and regional (switching off nerves to the arm) anaesthetic. In Arthroscopic cases there are two small incisions at the front and one at the back of the shoulder, each closed with a single stitch. Open surgery has a single incision at the front closed with a stitch under the skin. Prior to discharge from hospital, waterproof dressings are applied, so showering is possible the day after surgery. The stitches are removed after approximately 10 days .

The majority of patients stay in hospital overnight. This allows advice regarding care of the repair before leaving the hospital. Adequate pain control following surgery is very important and usually involves a combination of oral medications. A sling is worn for six weeks and rehabilitation is under the guidance of the physiotherapists.

Physiotherapy exercises should be done at least three times a week for a minimum of 12 weeks. Even when you are doing your exercises regularly, you may not see any change for six weeks after coming out of the sling.

You may be in pain for a few weeks, so it is important to take your pain medication regularly. It will take a few weeks for any bruising around your shoulder/upper arm and any swelling in your arm to disappear. An icepack, such as ice cubes or frozen peas wrapped in a damp cloth, can help to reduce swelling and pain. Leave the icepack on your shoulder for up to 15 minutes, checking your skin regularly to ensure it does not become irritated. If this happens, discontinue the ice treatment. Never place ice directly onto your skin.

You can usually drive approximately eight weeks after surgery, and return to work in four if your job is sedentary (typing may be difficult), and 4–6 months if it is manual. Your ability to resume leisure activities depends on the mobility and strength you regain in your shoulder after the operation. As a guideline, swimming and non-contact sports after three months, and contact sports including rugby should not be considered for at least six months.

Notes

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