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Anterior stabilisation of the shoulder: open and arthroscopic (keyhole)

This information aims to help you gain the maximum benefit and understanding of your operation.

It includes the following information:

- Key points
- About your shoulder and shoulder dislocation
- About the operation
- Risks and alternative solutions
- Frequently asked questions
- Exercises
- Contact details
- Useful links

Key points

If you are considering having shoulder stabilisation surgery, remember these key points:

1. Nearly all are done as day case surgery (home the same day).
2. You will have a general anaesthetic (you will be asleep).
3. You will be in a sling for up to 3-6 weeks.
4. You will not be driving for at least 6 weeks.
5. You will not return to work for 3 months if you are a manual worker but much sooner if you are not a manual worker.
6. You will have to wait 6 months before returning to collision (contact) sport including football.
7. This is a safe, reliable and effective operation for 90% of people.
8. This is not a quick fix operation - symptoms may take many months to improve.
9. www.shoulderdoc.co.uk is a reputable and useful British website for further information.

The shoulder

The shoulder joint is extremely mobile because it is a ‘loose’ joint. It is formed between the ball shape of the humeral head and the nearly flat saucer/socket of the glenoid. There is a thick rim of gristle (labrum) attached around the rim of the glenoid which deepens the saucer into a bowl shape and so provides some stability. Attached all around the edges of the glenoid and humeral head is the capsule which contains the entire shoulder joint like a strong ‘bag’. Areas of the capsule are thickened to form ligaments. Blending with the capsule are the tendons of the four rotator cuff

muscles, which constantly control the movements between the glenoid and humeral head.

Therefore, there are several important structures that help to keep the joint in position:

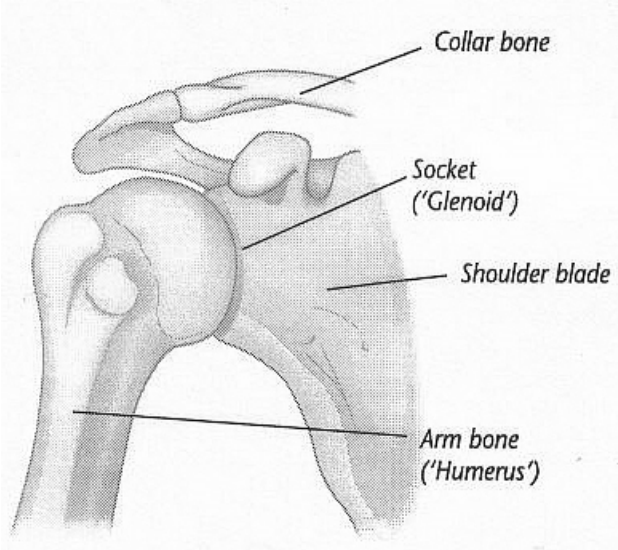
a) The rim of cartilage (labrum) which deepens the socket.
b) The capsule or the ‘bag’ that contains the joint.
c) The ligaments that hold the bones together.
d) The muscles that keep the shoulder blade and joint in the correct position when moving or using the arm.

Shoulder dislocation

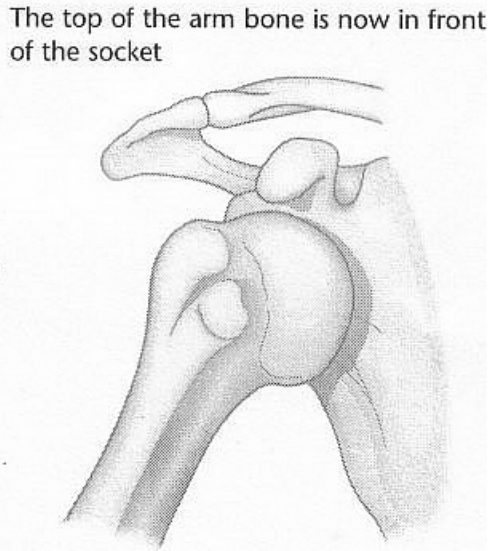
Most shoulders dislocate forwards and/or downwards (*see diagram below*). Sometimes the ball of the humerus bone only partly comes out of the socket of the shoulder blade (glenoid) and move back into place spontaneously. This is known as subluxation.

Right shoulder (from the front)

Normal alignment



Dislocated shoulder



The commonest cause of dislocation is an injury. This may occur in anyone but is most frequently encountered in young adults. The shoulder dislocates for the first time because of a major injury such as during rugby, snowboarding, water skiing, car crash etc. When the shoulder dislocates it knocks the lower-front labrum away from the rim of the glenoid and also stretches the capsule of the joint. The labrum often seems to heal into the wrong position and the capsule remains slightly stretched. This means that there is now a weak point around the circumference of the shoulder, which allows the joint to dislocate with increasing ease. Physiotherapy cannot make the labrum heal in the correct position or tighten the capsule.

The treatment for recurrent traumatic dislocation depends on the age of the patient and their sporting involvement. Sportsmen/women under 30 years old usually need a shoulder stabilisation. More sedentary adults usually choose to modify their sport or lifestyle. Older patients frequently have an associated rotator cuff tear, which needs to be repaired surgically. Therefore, if you are under 30 and enjoy sport then there is a chance you will continue to dislocate unless you have surgery.

About your shoulder stabilisation operation

You will have a full general anaesthetic, i.e. you will be asleep. Your shoulder will be examined to assess the extent and direction of instability (examination under anaesthesia = EUA). Next, an arthroscope (camera) will be passed into your shoulder from the back through a tiny incision (cut) in the skin. This will allow the surgeon to assess the extent of internal damage within the joint. In selected cases, it may be possible to complete the whole stabilisation operation using only keyhole (arthroscopic) surgery via several more small skin incisions at the front of the shoulder. Otherwise, the main operation will be performed 'open' via a 5cm skin incision over the front of the shoulder in line with a bra strap. Both the open and arthroscopic versions of the operation involve finding the detached labrum (gristle) and fixing back into its correct position using stitches or anchors. The stretched capsule is also tightened.

Occasionally, if the shoulder dislocation has damaged the bone of the glenoid socket or previous surgery has failed, then bone may need to be transferred from the shoulder blade to the front of the socket to rebuild it. This is done with an open operation and through a 5cm skin incision. This procedure is called a 'Laterjet procedure'. Fortunately, this is only usually performed for people who have had a dislocation after a previous surgical repair.

Which is best, open or arthroscopic stabilisation?

Currently we do not know for sure. The open technique is tried and tested over many years with good but not perfect long-term results. The development of modern techniques and equipment means that the results of arthroscopic stabilisation have improved and are now as reliable as the open technique in **selected** cases. The benefits of the arthroscopic over the open procedure seem to be less pain and stiffness in the first few weeks after the operation (after that there is no difference), smaller scars, lower risk of infection, and, most importantly, the avoidance of having to cut then repair an important tendon (subscapularis) at the front of the shoulder.

What are the risks and complications?

All operations involve an element of risk. We do not wish to over-emphasise them but feel that you should be aware of them before and after your operation. The risks include:

a) **Complications relating to the anaesthetic**, such as sickness, nausea or rarely cardiac, respiratory or neurological (less than 1% each, i.e. less than one person out of one hundred).
b) **Infection:** These are usually superficial wound problems. Occasionally, deep infection may occur after the operation (less than 1%).
c) **Unwanted stiffness and / or pain** in (and around) the shoulder (less than 1%).
d) **Damage to nerves and blood vessels** around the shoulder (less than 1%).
e) **A need to re-do the surgery:** The repair may fail and the shoulder may become unstable again. This occurs in between 3-20% of cases.

Please discuss these issues with the doctors if you would like further information.

Alternative options

- You do not have to have the operation.
- Simply by changing your lifestyle and preferred sports you may be able to avoid further dislocations. Some people never have more than one dislocation even without changing their lifestyle.
- Physiotherapy can help some people but not all.
- Shoulder sports pads and harnesses can help reduce the number of dislocations on the playing field but at the expense of limiting movement and flexibility of the shoulder.

Questions that we are often asked about the operation

Will it be painful?

Please purchase packets of tablets such as paracetamol (painkillers) and anti-inflammatories (e.g. nurofen, ibuprofen, diclofenac) before coming into hospital.

- During the operation, local anaesthetic will be used to help reduce the pain.
- The anaesthetist may discuss the option of numbing the whole arm for a few hours after the operation
- Be prepared to take your tablets as soon as you start to feel pain.
- If needed, take the tablets regularly for the first 2 weeks and after this time only as required.
- If stronger tablets are required or if you know you cannot take paracetamol or anti-inflammatories, talk to your GP.
- The amount of pain you will experience will vary and each person is different. Therefore, take whatever pain relief **you** need.

You may find ice packs over the area helpful. Use a packet of frozen peas, placing a piece of wet paper towel between your skin and the ice pack. Use a plastic bag to prevent the dressings getting wet until the wound is healed. Leave on for 5 to 10 minutes and you can repeat this frequently (up to 4 to 8 times) during the day.

Do I need to wear a sling?

Yes, your arm will be immobilised in a sling for 3 to 6 weeks. This is to protect the surgery during the early phases of healing and to make your arm more comfortable. You will be shown how to get your arm in and out of the sling by a nurse or physiotherapist. You are advised to wear the body strap to keep your arm close to your body, under your clothes, for the first 3 weeks. **Only take the sling off** to wash, straighten your elbow or if sitting with your arm supported.

You may find your armpit becomes uncomfortable whilst you are wearing the sling for long periods of time. Try using a dry pad or cloth to absorb the moisture.

If you are lying on your back to sleep, you may find placing a thin pillow or rolled towel under your upper arm helpful.

When can I go home?

Most people choose to go home the same day (day case surgery).

When will I have follow up?

You will usually be seen within the first week, in a group setting, by a physiotherapist to check how you are progressing (these may be virtual via video call because of COVID-19 safety measures). Please discuss any queries or worries you have at this time. You will have a follow up appointment with the consultant around three months after the operation.

What do I do about the wound and the stitches?

- Keep the wounds dry until they are healed which is normally for 10 to 14 days. You can shower/wash and use ice packs but to protect the wound with cling film or a plastic bag.
- Avoid using spray deodorants, talcum powder or perfumes near or on the scar.
- If you have any stitches they will be dissolving sutures, but the ends, which look like fishing line, may need to be trimmed by the GP practice nurse.

Do I need to do exercises?

For the first three weeks, you will not be moving the shoulder joint. You will be shown exercises to maintain movement in your neck, elbow, wrist and hand and you will need to continue with these at home.

Outpatient physiotherapy will be arranged to start at 3 weeks after your operation. You will start an exercise programme to gradually regain movements and to strengthen your shoulder. The exercises will be changed as you progress.

You will need to get into the habit of doing regular daily exercises at home for several months. They will enable you to gain maximum benefit from your operation. Some of the early exercises are shown at the back of this booklet.

Are there things that I should avoid doing?

In the first 3 weeks:

Do not be tempted to remove your arm from the sling to use your arm for daily activities but only to do the correct exercises.

For 6-8 weeks:

- Avoid moving your arm out to the side and twisting it backwards. For example, when putting on a shirt or coat, put your operated arm in first. Try not to reach up and behind you (e.g. seat belt in car).
- Do not force the outward twisting of your arm for 12 weeks (3 months). This movement stretches the ligaments and muscles that have been tightened. Remember, this operation has been done because you had too much movement in your shoulder.
- The ligaments and muscles need time to repair in their new, tightened position and it is advisable **not to over-stretch** them early on. They will benefit from gentle movements after 3 weeks.

How am I likely to progress?

This can be divided into three phases:

Phase 1. Sling on, no movement of the shoulder

You will be one-handed, immediately after the operation for the first 3 weeks. This will affect your ability to do everyday activities, especially if your dominant hand (right if you are right handed) is the side of the operation.

Activities that are affected include dressing, shopping, eating, preparing meals and looking after small children. You will probably need someone else to help you. You may also find it easier to wear loose shirts and tops with front openings.

Phase 2. Regaining everyday movements

After three weeks, you can gradually wean yourself off using the sling and you will start outpatient physiotherapy. You will be encouraged to use your arm in front of you, but not to take it out to the side and twist it backwards (see ‘things to avoid’ above). Exercises will help you regain muscle strength and control in your shoulder as the movement returns. The arm can now be used for daily activities; initially, these will be possible at waist level but gradually you can return to light tasks with your arm away from your body. It may be 6-8 weeks after your operation before you can use your arm above shoulder height.

Phase 3. Regaining strength with movement

After 8-12 weeks, you will be able to progressively increase your activities, using your arm further away from your body and for heavier tasks. You can start doing more vigorous activities but contact sports are restricted for at least 6 months (see leisure activities section). You should regain the movement and strength in your shoulder within 6-8 months. Research has shown that after 2-5 years, about 90% of people have a stable shoulder with few limitations. Vigorous sports or those involving overhead throwing may require adaptation for some people, although many return to previous levels of activity.

When can I drive?

This is likely to be 2 to 3 weeks (at the earliest) **after the removal of the sling (so at least 6 weeks after your operation)**. Check you can manage all the controls and it is advisable to start with short journeys. Initially, the seat belt may be uncomfortable but your shoulder will not be harmed by it. It is illegal to drive while you are still using your sling.

When can I return to work?

You may be off work between 2 and 8 weeks, depending on the type of job you have, which arm has been operated on, and if you need to drive. If you are involved in lifting, overhead activities or manual work you will not be able to do these for 8-12 weeks. Please discuss any queries with the physiotherapist or hospital doctor.

When can I participate in leisure activities?

Your ability to start these will be dependent on the range of movement and strength that you have in your shoulder following the operation. Please discuss activities in which you may be interested with your physiotherapist or consultant. Start with short sessions, involving little effort

and gradually increase. General examples are:

- Cycling – 4 to 6 weeks.
- Swimming – gentle breaststroke 12 weeks, freestyle 12 weeks.
- Light sports/racquet sports using **non-operated** arm – 10 weeks.
- Racquet sports using operated arm – 16 weeks.
- Contact or collision sports, which includes horse riding, football, martial arts, rugby, racquet sports and rock climbing – 6 months.

The normal timeframe of improvement

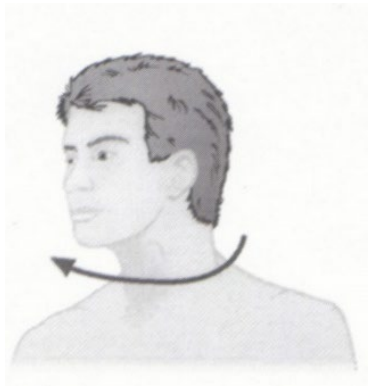
By three months after the operation, you should have recovered a good range of movement, the pain will have settled and the shoulder will feel more solid and stable. The shoulder will continue to strengthen for up to 12 months after the operation.

Exercises

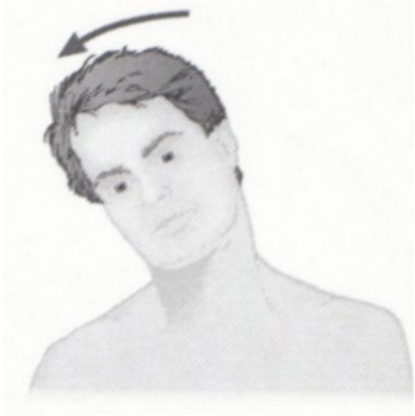
- Use painkillers and/or ice packs to reduce the pain before you exercise.
- It is normal for you to feel aching, discomfort or stretching sensations when doing these exercises. However, if you experience intense and lasting pain (e.g. more than 30 minutes) reduce the exercises by doing them less forcefully or less often. If this does not help, discuss the problem with the physiotherapist.
- Certain exercises may be changed or added for your particular shoulder.
- Do short frequent sessions (e.g. 5-10 minutes, 4 times a day) rather than one long session.
- Gradually increase the number of repetitions you so. Aim for the repetitions that your therapist advises, the numbers states here are rough guidelines.
- Please note: all pictures are shown for the right shoulder unless specified.

Phase 1 exercises: from operation day to 3 weeks after operation

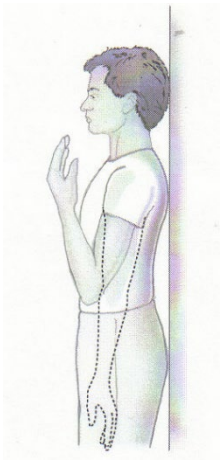
Standing or sitting



Tilt your head to one side.
Repeat 5 times.
Then turn your head to the other side and repeat 5 times.



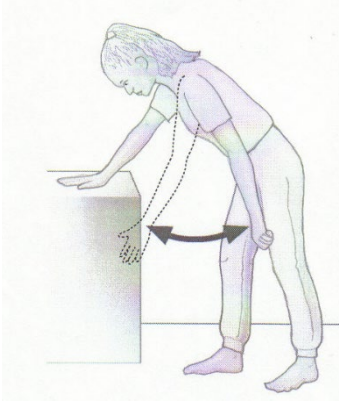
Tilt your head towards one shoulder.
Repeat 5 times.
Then tilt your head to the other side and repeat 5 times.



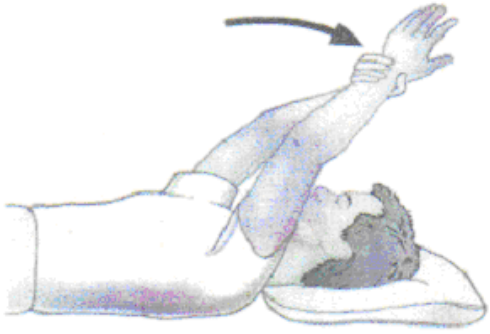
Standing or lying
Straighten your elbow and then bend your elbow
Repeat 5 times.
(Shown for left arm.)

Phase 2 exercises: start these as advised by the hospital doctor or physiotherapist. Normally about 3 weeks after the operation.

Shoulder exercises



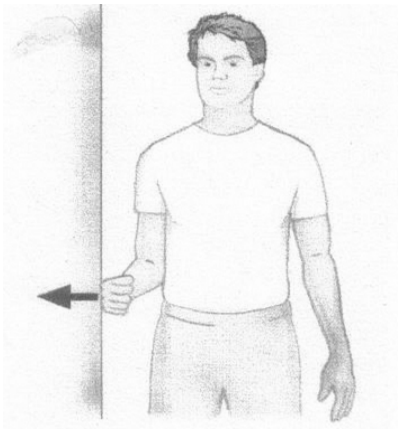
Stand leaning forwards
Let your arm hang down.
Swing the arm forwards and backwards.
Repeat 10 times.
(Shown for the left shoulder.)



Lying on your back
Support your operated arm with the other arm and lift it up overhead.
Repeat 10 times.
(Shown for the left shoulder.)

These additional exercises can be started 4 weeks after your operation.

Stand with arm close to side and elbow bent
Push the palm of your hand into other hand but **do not let it move**.
(This can be done against a wall or doorframe).
Do not shrug your shoulders
Hold for 10 seconds.
Repeat 10 times.
Build up to 30 repetitions.



Standing with your operated arm against a wall
Bend your elbow. Push your hand into the wall but do not let your arm move.
Do not shrug shoulders
Hold for 10 seconds
Repeat 10 times.
Build up to 30 repetitions.

Stand with your back against the wall
Keep your arm close to your side with the elbow bent.
Push the elbow back into the wall but do not let the arm move**.**
Hold for 10 seconds. Do not shrug your shoulders.
Repeat 10 times.
Build up to 30 repetitions.

Stand sideways with operated arm against wall
Keep your arm close to your side with the elbow bent.
Push the elbow into the wall but do not let the arm move**.**
Hold for 10 seconds.
Do not shrug your shoulders.
Repeat 10 times.
Build up to 30 repetitions.

Stand facing a wall
Keep your arm close to your side with the elbow bent.
Push your fist into the wall but do not let the arm move**.**
Hold for 10 seconds.
Do not shrug your shoulders.
Repeat 10 times.
Build up to 30 repetitions.

The last few exercises work the muscles without moving the joint. These can be progressed to using elastic exercise bands so the muscles work with the joint moving. This can be done after 6 weeks.

Phase 3 exercises: from 8 weeks after your operation

These will concentrate on increasing the strength and mobility around your shoulder. The exercise will be selected for your individual shoulder and lifestyle.

Contact details

Clinical Admin Team (CAT5)
Tel: 0118 322 7415
Email: CAT5@royalberkshire.nhs.uk

Useful links

www.shoulderdoc.co.uk
www.orthogate.org/patient-education

This leaflet is not a substitute for professional medical care and should be used in association with treatment at your hospital. Individual variations requiring specific instructions not mentioned here might be required. It was compiled by Mr Harry Brownlow (Consultant Orthopaedic Surgeon), Mr Amar Malhas (Consultant Orthopaedic Surgeon), Emma Lean and Catherine Anderson (Specialist Physiotherapists) and is based on the information sheet produced by Jane Moser (Superintendent Physiotherapist) and Professor Andrew Carr (Consultant Orthopaedic Surgeon) at the Nuffield Orthopaedic Centre in Oxford.

Contacting the ward

If you have any concerns or problems following your discharge, you can contact the ward for general advice by telephoning:

Chesterman Ward	0118 322 8847
Redlands Ward	0118 322 7484 / 7485
Trauma Unit (Trueta Ward)	0118 322 7541
Adult Day Surgery Unit	0118 322 7622
Pre-op Assessment	0118 322 6546

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Please ask if you need this information in another language or format.

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