

Dr Doron Sher

MB.BS. MBiomedE, FRACS(Orth)

Knee, Shoulder, Elbow Surgery

ORTHOSPORTS



PATIENT NOTES – SHOULDER STABILISATION

ARTHROSCOPIC VERSUS OPEN STABILISATION

The most common cause of shoulder instability is a shoulder injury. Falling or running into something, a sporting tackle or lifting something a long way can over stretch your shoulder joint. This loosens the part of the joint which keeps it tight in a way which does not allow it to heal. Once the shoulder has been out of joint once it is very likely to slip out of the socket again and again.

The treatment of shoulder instability is to get your shoulder back under control. This removes the sensation that the shoulder is slipping out of place. For some patients this will mean a physiotherapy program and for others it will involve an operation. After you shoulder is stabilised, regular exercise can help keep it that way.

The Shoulder Joint

The shoulder is the most flexible joint in the body, allowing you to throw balls, lift heavy objects and reach in almost any direction. The shoulder is made up of bony parts and soft tissue parts. The shoulder “stabilisers” hold the humeral head and glenoid together to keep the shoulder stable.

The Capsule

The capsule is called the static stabiliser. It encloses the humeral head and the glenoid and stabilises the joint, stopping the humeral head from leaving the glenoid when you raise your arm.

The Rotator Cuff

The rotator cuff is called the dynamic stabiliser. The rotator cuff muscles and tendons pull the humeral head into the glenoid when you raise your arm and thus helps stabilise the shoulder.

The Labrum

The labrum is a ring of tough and flexible tissue on the rim of the glenoid. It attaches the glenoid to the capsule and makes the glenoid socket deeper, thus making shoulder dislocation less likely.

If the humeral head shifts completely off the glenoid because the shoulder joint is too flexible this is called a dislocation. When the head is pushed only part way out of the glenoid it is called subluxation. Subluxing or dislocating a shoulder can stretch or tear the capsule and damage other parts of the joint. This makes the humeral head more likely to slip out of the glenoid again.

Injury can happen to the capsule, the bone, the glenoid labrum and rarely to the muscles. If the capsule is torn, it cannot stop the humeral head from moving out of the glenoid, allowing the head to slip out over and over again.

When the shoulder dislocates the humeral head can hit the bone of the glenoid rim, fracturing the glenoid or denting the humeral head. This, again, makes the humeral head more likely to slip out again and again.

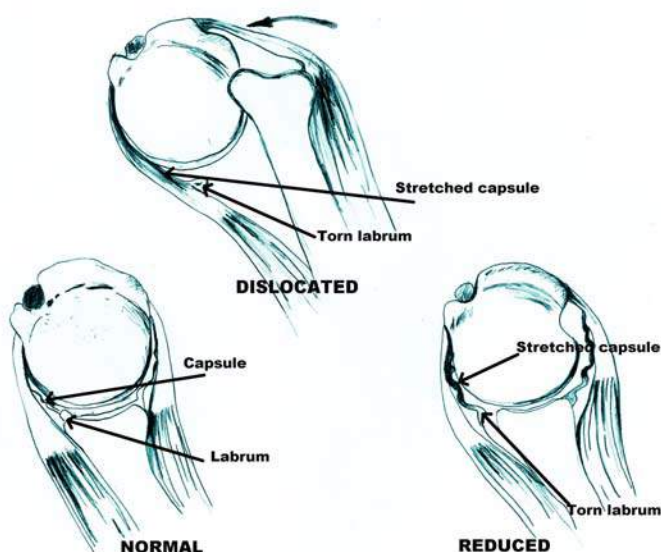
If the humeral head pushes only part way out of the glenoid, the capsule may stretch rather than tear. The stretched capsule is too loose to stop the humeral head from leaving the glenoid when you raise your arm. When it pushes all or part way out of the glenoid, the humeral head can tear the labrum. Since the labrum helps hold the humeral head inside the glenoid, a torn labrum means the humeral head may slip out of the glenoid.

You have elected to undergo an operation to stabilise your shoulder for recurrent dislocations or subluxations of your shoulder.

There are several different techniques available to stabilise your shoulder. I have suggested that you consider either an open (i.e. with a cut) operation or an arthroscopic (minimally invasive or keyhole) procedure. The arthroscopic procedure achieves good results in cases where there have been fewer dislocations or if you are not going to return to “collision” sports. The arthroscopic operation has a success rate of about 90%. The open operation has a higher success rate especially in people who have had more than several dislocations or who are very active and play professional contact sports. The success rate of the open operation is greater than 90%. The rehabilitation following both procedures approximates 6 months but hospitalisation is shorter and the amount of pain is usually less with the arthroscopic procedure. I perform both types of operation and will discuss the alternatives with you.

The operation is necessary because your shoulder keeps coming out of joint and the risk of it continuing to come out of joint is very high. Each time the shoulder dislocates more damage is done to the joint itself and this increases the risk of arthritis in the future.

As a result of the dislocations you have stretched the capsule of the shoulder joint and it is larger and more voluminous than the normal capsule. In addition you may have torn a small piece of tissue known as the labrum off the bone and this is where the humeral head dislocates forwards.



The principle of both operations is to reduce the size of the stretched capsule of the shoulder joint and to reattach the torn labrum back to the bone, if it is torn.

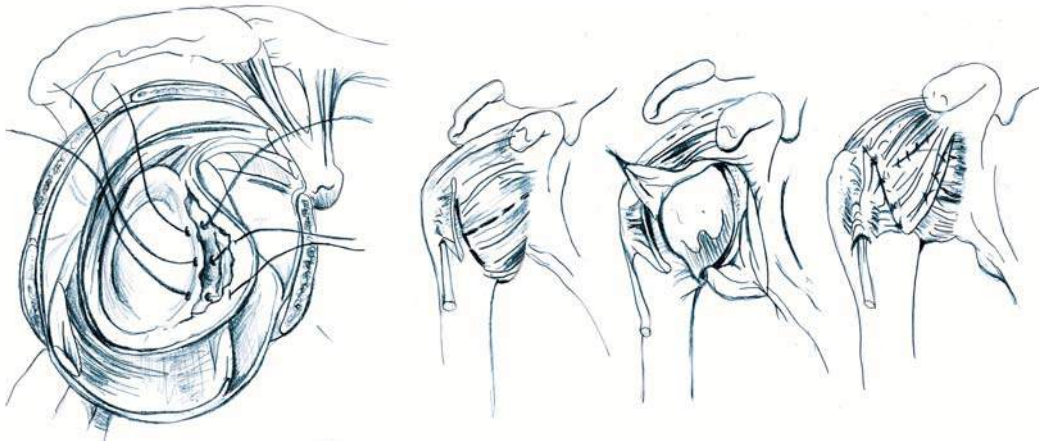
If you have certain medical problems you may require some preoperative tests to ensure that you are fit for a general anaesthetic. These will be organised through my office and you may need to see a physician. One week prior to surgery, you will need to wash your shoulder girdle with PHISOHEX antiseptic solution (available from your chemist). If you get an allergic reaction to the PhisoHex then stop using it immediately and inform my office. You are to avoid getting sunburnt.

If you are on Anti inflammatory tablets or Aspirin, please check with your GP and if he or she says it is safe, stop the tablets 10 days prior to surgery (the only exceptions to this are Celebrex or Vioxx which can be stopped the day prior to the surgery).

You will be admitted to the hospital on the morning of surgery and you will be visited by the anaesthetist who will examine you and make sure you are fully fit to undergo a general anaesthetic. In many cases the anaesthetist will explain to you the option of having a "block" which is an injection in and around the neck which will reduce pain for 12 to 18 hours post operatively. The nursing staff will also explain the use of "patient controlled analgesia" (or PCA) where you regulate the amount of pain relieving medication that you use. You must remove all rings from your hand prior to surgery.

THE OPEN STABILISATION

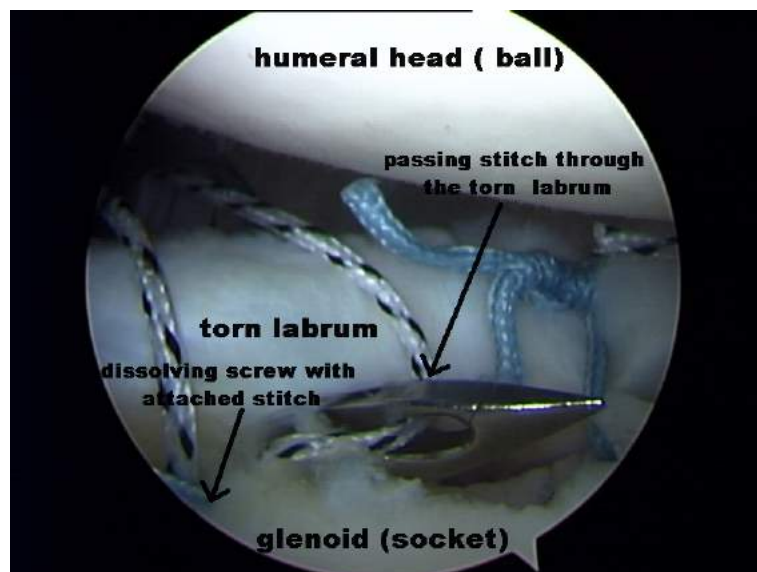
This operation takes about 90 minutes. The incision is adjacent to the crease in the armpit and unfortunately it can spread with time. You will have some permanent numbness around the scar, which is usually not very noticeable. The operation involves cutting down to the shoulder joint and reattaching the torn labrum back to the bone with either stitches or small screws (which are sunk into the bone and do not require removal). A T-shaped cut is made in the capsule and it is then tightened so that the volume of the capsule is reduced and the shoulder can no longer move in abnormal directions. There will be some mild permanent stiffness but this is usually hardly be noticeable and rarely causes any functional deficit.



You will wake up in the ward in a sling and you will have a drain coming out of your armpit. You will be given adequate pain killers to keep you comfortable.

THE ARTHROSCOPIC STABILISATION

This operation takes about 120 minutes. You will have one small incision at the back of your shoulder, two small incisions at the front and sometimes one on the side. The labrum (or cartilage) which is torn off the bone is repaired with either a dissolving screw or a metal screw with a stitch attached to the end. In cases where the capsule (or lining of the shoulder) has stretched, there is the added option of dividing the capsule and then tightening the capsule with arthroscopic stitches. This acts like closing a double-breasted coat and helps prevent abnormal movements.



POST OPERATIVE MANAGEMENT FOR BOTH OPERATIONS

The day after surgery you will be seen you and the surgery discussed with you. Your drain will be removed if you have had an open procedure. A waterproof dressing will be placed on the shoulder and you will be allowed to shower. When showering take the sling off but leave your arm adjacent to your body – **do not attempt to lift or rotate the arm** – and then put the sling back on after you are dry. Make sure the armpit is as dry as possible because of the risk of a sweat rash or an armpit infection. It is important to sit out of bed and walk around as soon as you are comfortable and able.

If you have had an arthroscopic procedure you can leave hospital that day.

If you have had an open operation you generally leave on the second postoperative day but can leave on the first postoperative day if your pain level is well controlled.

In the immediate post operative period you will experience pain about the shoulder. There will also be significant pain at night as a result of the surgery. On discharge from hospital you will be given analgesics as well as tablets to help you sleep at night, which I would encourage you to use. Should you require extra tablets, either let my office know or see your family doctor. You will also be given a package of antibiotics which you should continue until you finish the packet. You only need the one package. You will have a “see through” dressing over the wound made out of a substance called “duoderm”. This is a waterproof dressing that allows you to shower without compromising the sterility of the wound. You will notice under the dressing there will be a white material that looks like pus. This is the perspiration of your skin reacting with the medication in the dressing and is nothing to worry about. The dressing should not be changed. It is common to get swelling about the arm, forearm, hand and fingers. Please endeavour to keep the armpit as dry as possible – once the wound has healed at about 10 days you can use talcum powder, which will help.

The sling will need to remain on for at least 4 weeks but sometimes 6 weeks depending on what we find at the time of surgery. The sling must remain on 24 hours a day including at night. The sling only comes off to have a shower and get dressed and on those occasions the arm needs to be kept adjacent to the body. The Roads and Traffic Authority does not permit driving of a motor vehicle while you are in a sling. I therefore recommend you do not drive for 4 to 6 weeks.

When to contact me before I have removed your stitches:

- Fever above 38 degrees Celsius
- Increased pain unrelieved with pain medications
- Sudden, severe shoulder pain.
- Increased redness around the incision
- Increased swelling at the incision
- A bulge that can be felt at the shoulder
- Shoulder pain, tenderness or swelling.
- Numbness or tingling in the arm.
- Change in colour and temperature of the arm.
- Change in motion ability
- Drainage or odour from the incision
- Any significant concerns you have

You will be reviewed about 10 days following surgery to take out your stitches and check that the wound is clean and that there is no infection.

You will be reviewed at the 4 or 6 week mark, whichever is appropriate, to take you out of the sling and start a passive exercise program which lasts for 2 to 4 weeks. Two weeks later you will be started on an active exercise program. By this time your shoulder movements will be about half normal and you will still have some pain and discomfort

At 10 to 12 weeks following the operation you may start some breaststroke swimming and also will progress on the exercise program. The rate of progression of the exercise program will depend on how you are doing.

Under NO circumstances can you return to any sports for 6 months. Doing so may compromise the result. Fitness can be maintained by using an exercise bike or jogging, with care not to fall. Some supervised swimming is allowed after 10 to 12 weeks. Tennis, basketball, touch football, soccer, weights training and ALL sports should not be started until I permit it at about 6 months following surgery.

At about 5 months you will commence a supervised physiotherapy program incorporating light weights. At about 6 months, providing you have sufficient muscle control of the shoulder, you will resume full activity, including contact sports. You will need to continue the exercise program for at least 9 months following surgery. Your shoulder may be a little stiff for up to 12 months following surgery. Please note that in most cases there will be minor but permanent loss of motion at the extremes of movement but this usually does not cause any functional impairment.

Persons who return to contact sport, especially professional athletes, should use a brace for the first season on returning to play. This is to protect the repair. The brace is usually fitted by the team physio. All patients who return to doing weights should permanently avoid training in positions that can stretch

The recurrence rate following open surgery is about 5% in persons who do not return to contact sport, but climbs to 10% in persons who return to contact sport and this includes snow and water skiing. The recurrence rate following the arthroscopic procedure is about 10% which climbs to 20% if you return to contact sport which includes snow and water skiing.

These operations do not give you a super strong shoulder and just as you dislocated your shoulder the first time, you may dislocate it again with violent sporting activity.

COMPARISON OF OPEN AND ARTHROSCOPIC SURGERY

| | ARTHROSCOPIC | OPEN |
|---------------------------------|---------------------------|---------------------------|
| incisions | 3 small one cm incisions | One larger 4 cm incision |
| Post operative pain | mild | significant |
| hospitalisation | overnight | 2 days |
| Time in sling | Four weeks | Four weeks |
| Exercises/physio | 6 months | 6 months |
| Off sport/lifting | 6 months | 6 months |
| Slight permanent loss of motion | rare | usual |
| Success rate | 90% (80% contact sports) | 95% (90% contact sports) |
| complications | rare | rare |

COMPLICATIONS

All surgery carries potential risks and complications. In most cases the decision to proceed with surgery is made because the advantages of surgery outweigh the potential disadvantages. It is very important for you to understand the reason for choosing surgical management over other non-surgical forms of treatment and to make an informed choice in consultation with the surgeon. This is particularly important in cases of elective surgery.

It should be noted that there is no operation that cannot make you permanently worse off than prior to surgery but I would like to emphasise that such complications are exceedingly rare.

The risks of surgery can be divided into general risks with any surgical procedure and specific risks of particular procedures.

The general risks of surgical procedures include the following:

Respiratory tract infections: This includes the development of pneumonia, which can follow anaesthesia for surgical procedures. It is more common in the aged and very uncommon in the young and healthy. Treatment involves antibiotics, physiotherapy and respiratory support. Treatment is not always effective.

Thromboembolic problems: This term refers to the formation of blood clots within the blood vessels. If they form in the veins they are known as deep venous thromboses, which can cause swelling and pain in the legs and a restriction of blood flow. These clots can travel to the lungs and cause a pulmonary embolus (which is potentially fatal). This complication is more likely to happen in smokers, overweight people and women using contraceptive medications. For this reason patients are advised to stop smoking and stop taking oral contraception before surgery. Long aeroplane flights also increase the chance of blood clots forming and therefore patients should not fly and have surgery in the same two (and preferably six) week period. Unlike lower limb surgery, blood clots are uncommon after shoulder surgery.

In emergencies, special precautions are taken. Treatment of this condition usually involves anti-coagulant (blood thinning) medication administered by injection into the skin or by intravenous drip and then followed up by a tablet form of anti-coagulant therapy. Therapy for this condition is not always successful. If clots form in the arterial system then a stroke may occur.

Infection: This can occur following any surgery. Operating theatres are designed to minimise the risk of bacterial infections. Surgical procedures are carried out in a sterile manner. In higher risk operations, antibiotics are given to decrease the likelihood of infection. In low risk operations such as arthroscopy, antibiotics are not given because the complication rate from the antibiotic treatment (which is extremely low) is greater than the potential complication rate from infection.

Despite expert treatment and antibiotic protection, infections still occur. These can cause prolonged disability, require treatment with antibiotics and occasional require surgery. Infections can be found at the operative site, in the lungs, the urinary system and elsewhere.

Anaesthetic Complications: Anaesthesia itself entails a degree of risk, some of which is outlined above. For further information regarding anaesthetic risks please feel free to contact the treating anaesthetist for your operation. My office staff will be happy to provide you with a contact number. You will see the anaesthetist in hospital prior to your operation and will have the chance to discuss the effects and possible complications of anaesthesia at that stage.

Rare and unusual problems can occur as a result of surgery and anaesthesia. If you are concerned about the potential for complications or the advantages and disadvantages of a decision to proceed with surgery you should discuss that with me before the operation. If there is any doubt in your mind then I would strongly recommend that you seek an independent second opinion. This can be arranged through your referring medical practitioner.

The common complications specific to shoulder surgery include but are not limited to wound infections, stiffness and occasionally some transient numbness around the shoulder. In particular, post operative stiffness can be a problem, especially if you have diabetes. Very occasionally we have to do a procedure called a Manipulation if stiffness remains a problem after 6 months.

My patients are only offered the option of surgery after non operative forms of treatment have been considered. Surgery is offered only when I consider that the potential advantages of this form of treatment outweigh the possible complications and side effects (when I feel that it is likely to lead to a better outcome for you than non-operative forms of management). In the case of elective surgery, you are encouraged to consider the non-operative options of treatment and take time to make an informed choice about the preferred course of management. You are free to discuss this with me or your referring medical practitioner. If elective surgery is proposed, please feel free to take as much time as you need to come to an informed decision. If you are not completely comfortable with the decision to proceed with surgery, you are free to take up further discussions with me or seek an independent second opinion.

March 2004

| | | | |
|------------|---------------------------------|-------------|----------------------|
| D. SHER | knee shoulder and elbow surgery | J.GOLDBERG | shoulder surgery |
| C. WALLER | hip & knee surgery | R.PATTINSON | paediatric & general |
| A.LOEFLER | hip, knee & spines | J.NEGRINE | foot & ankle surgery |
| A.TURNBULL | hip & knee surgery | W.BRUCE | hip & knee surgery |
| | | S.MYERS | hand & wrist surgery |

160 Belmore Road, Randwick 2031 Phone 93995333 Fax 93988673
47-49 Burwood Road, Concord 2137 Phone 97442666 Fax 97443706
ESSMC 1st Floor Easts Tower, 9 Bronte Road Bondi Junction Phone 93892766
www.orthosports.com.au