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Knee, Shoulder, Elbow Surgery

ORTHOSPORTS™

PATIENT NOTES – SHOULDER STABILISATION

The most common cause of shoulder instability is a shoulder injury. Falling or running into something, a sporting tackle or lifting something the wrong way can over stretch your shoulder joint. This loosens the part of the joint which keeps it tight permanently and 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 but for most 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 "falling off" 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 keeps the joint properly aligned.

The Labrum

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

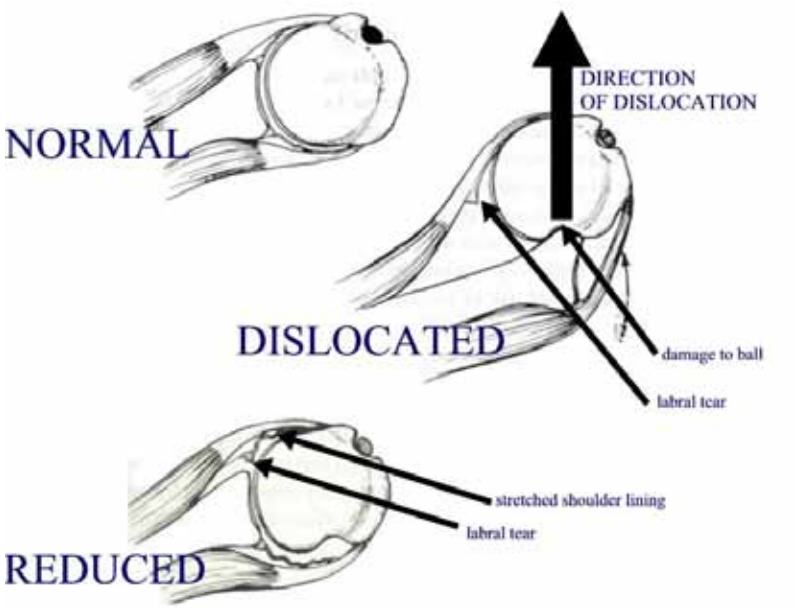
When the humeral head shifts completely off the glenoid this is called a dislocation. When the head moves only part way out of the glenoid it is called subluxation. Subluxing or dislocating a shoulder can stretch or tear the capsule and damage other parts of the joint, particularly the labrum. This makes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

Injury can happen to the capsule, the bone, the glenoid labrum and rarely to the muscles. When the capsule tears there is nothing to stop the humeral head moving off the glenoid. This allows the head to slip out over and over again (known as recurrent dislocation).

When the shoulder dislocates the humeral head can hit the bone of the glenoid rim, fracturing the glenoid or denting the humeral head (known as a bony Bankart lesion and Hills Sachs lesion). 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 tight enough to allow you to perform most activities but is too loose to stop the humeral head from leaving the glenoid when you raise your arm above shoulder level.

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. Almost always when you dislocate your shoulder you will stretch the capsule of the shoulder joint (making it larger and more baggy than the normal capsule) and tear a small piece the labrum off the bone, allowing the humeral head to dislocate forwards.



Treatment

Physiotherapy can help restore stability, strength and control of your shoulder. It helps you regain control by strengthening the rotator cuff and other shoulder muscles which are your dynamic stabilisers. It trains them to take over from the parts of the shoulder that are damaged and are no longer doing their job. For most sports people physiotherapy is only effective when used in conjunction with surgery although there are some types of instability where physiotherapy is enough to stabilise the shoulder.

Surgery

Surgery helps restore shoulder stability by tightening and repairing the shoulder's static stabilisers. The principles of the operation are to (1) Reduce the size of the stretched capsule of the shoulder joint and (2) Reattach the torn labrum back to the bone. The procedure is designed to tighten and repair the shoulder joint which means that physiotherapy after the procedure is often necessary to help you regain flexibility. It also helps you regain strength while the shoulder is healing.

Factors that are Important in the Determination of Treatment are

- How long you have had an unstable shoulder
- The direction in which your shoulder is slipping
- The extent of damage to the joint
- Whether there is any damage to muscles or nerves
- What kind of lifestyle you lead and/or sporting activity you want to be able to get back to

You have elected to undergo an operation to stabilise your shoulder for recurrent dislocation or subluxation of your shoulder.

There are several different techniques available to stabilise your shoulder. I have suggested that an open (i.e. with a cut) operation is more appropriate in your case than the arthroscopic (minimally invasive) procedure. The arthroscopic procedure has reasonably good results in cases where there have been few dislocations or if you are not going to return to "contact" sports. **The open operation has a higher success rate especially in people who have had more than one dislocation or who are very active.** The success rate of the open operation is greater than 90% but usually involves a slight loss of movement in certain positions of the shoulder. The rehabilitation following both procedures approximate 6 months.

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 might increase the risk of arthritis in the future.

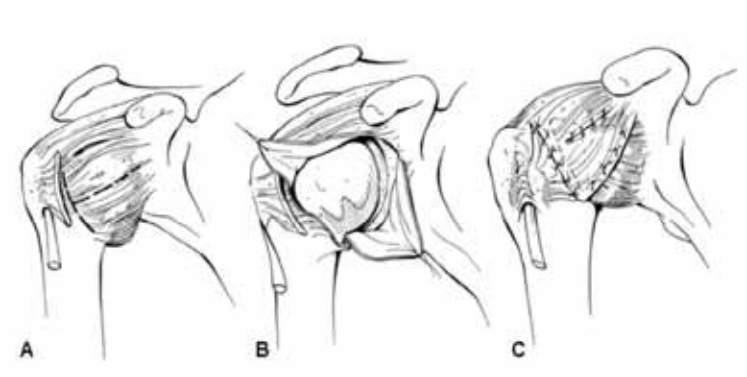
If you have certain medical problems you may require some preoperative tests to ensure that you are fit for a general anaesthetic. These will be organised through my office and you may need to see a physician. One week

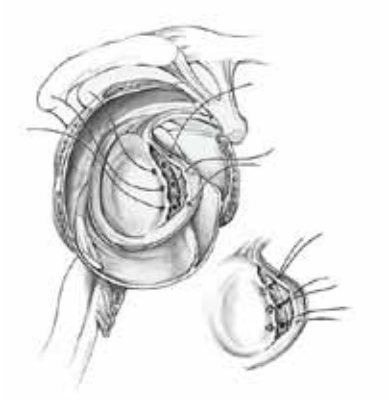
prior to surgery, you will need to wash your shoulder girdle with PHISOHEX antiseptic solution (available from your chemist). If you get an allergic reaction to the Phisohex then stop using it immediately and inform my office. You are to avoid getting sunburnt.

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.

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 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 that do not dissolve or small 'screws' which are sunk into the bone and do not require removal. A T-shaped incision 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 may be some mild permanent stiffness but this is usually not very noticeable and usually does not cause 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 day after surgery I will see you and discuss the surgery with you. Your drain will be removed. 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.

On the first or second postoperative day you will be discharged from hospital after I review you. In the immediate post operative period you will experience pain about the shoulder. There may also be significant pain at night as a result of the surgery. On discharge from hospital you will be given pain killers and possibly tablets to help you sleep at night (which are worthwhile using for a few days). If you need extra tablets, either let my office know or see your family doctor. 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. If the skin becomes red or you have chills, sweats or fevers please contact my office immediately. 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 a vehicle while you are in a sling. I therefore recommend you do not drive for 4 to 6 weeks.

I will review you about a week after the operation to take out your stitches, check that the wound is clean and that there is no infection.

I will again review you at the 4 or 6 week mark, whichever is appropriate, to take you out of the sling and start an exercise program.

Under NO circumstances can you return to any sports for 6 months. Doing so will compromise your end result. Fitness can be maintained by using an exercise bike or jogging, with care not to fall. I allow some supervised swimming after 10 to 12 weeks but tennis, basketball, touch football, soccer, weights training and ALL sports should not be started until I permit you to do so at about 6 months following surgery.

At about 6 months, providing you have sufficient muscle control of the shoulder, I will permit you to resume full activity, including contact sports. You will however need to continue the exercise program for at least 9 months after the operation. 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.

I also recommend people who return to contact sport (especially professional athletes) use a brace for the first season when they return to playing. 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 shoulder (such as shoulder presses and a full extension bench press). This should be discussed with your trainer and I am happy to do so.

The recurrence rate following surgery is about 5% in persons who do not return to contact sport, but climbs to 10% in persons who return to contact sport (including snow and water skiing). This operation does 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.

All operations have potential complications though these are uncommon with this type of surgery. The common ones include but are not limited to wound infections, stiffness and recurrence of dislocations. You should be aware that there is no operation that cannot make you permanently worse off than you were prior to surgery but I would like to emphasise that such complications are exceedingly rare.

If after reading this handout you have any questions, especially about the potential complications, please ring the office, leave a message for me and I will call you back to answer your questions.

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