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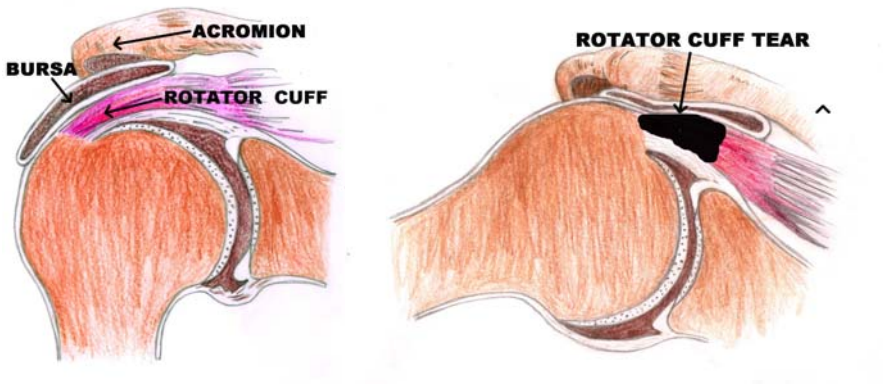
Knee, Shoulder, Elbow Surgery

ORTHOSPORTS™

PATIENT NOTES – ROTATOR CUFF REPAIR

You have elected to undergo an operation to repair the Rotator Cuff of your shoulder, which has a full thickness tear. This has been demonstrated by an arthrogram or an M.R.I.

The Rotator Cuff muscles are those muscles that surround the shoulder joint. Their job is to provide the power to lift and rotate the arm. As one ages these muscles become thinner and are prone to rupture, sometimes with minimal trauma. In the younger patient, rupture is usually associated with significant trauma. When the Rotator Cuff tears it usually does so at the junction of the muscle with the tendon, which is the part of the muscle that inserts into the bone.



Unfortunately when the Rotator Cuff muscles tear completely they do not repair themselves. Leaving them unattended leads to progression of the tear with progressive loss of motion and power. The longer a tear is left the bigger it gets and the more motion and power one loses. The surgical result is likely to be better with a smaller tear than a larger tear and thus the longer one leaves the tear unattended the less satisfactory the surgical result is likely to be.

Typically patients get severe pain with elevation of the arm, discomfort at night and a restriction in motion and power. Eventually they may lose the majority of shoulder motion.

There are several different techniques available to repair the Rotator Cuff. I have suggested an open (i.e. with a cut) operation which is more appropriate in your case than an arthroscopic (minimally invasive) procedure. The arthroscopic procedure has reasonably good results in cases where the tear is quite small but the results in larger tears are not as good as when the procedure is done as an open operation. The rehabilitation, however, may be quicker if the procedure is done arthroscopically.

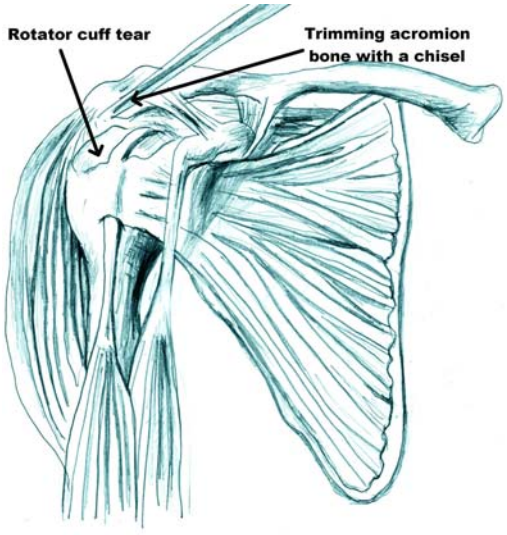
Rotator Cuff repair is a fairly major operation which has a twelve month rehabilitation period. The results are generally very good but even an excellent result does not give you a normal shoulder. The principle of the operation is to repair the torn muscle to the part of the bone from which it has become detached.

If you have certain medical problems you may require some preoperative tests which will be organised by our office, to ensure you are fit for a general anaesthetic. One week prior to surgery, you will commence washing your shoulder girdle with PHISOHEX antiseptic solution (available from your chemist). This is to reduce the number of microorganisms found on your skin and hopefully reduce your infection risk. Should you get an allergic reaction to the Phisohex then cease using it immediately and inform our 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 one week 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 operation takes 1.5 to 2 hours. The operative procedure involves a scar over the top of the shoulder. You may get some permanent numbness around the scar but this is usually not very noticeable. The acromion bone is then trimmed and the coraco-acromial ligament removed (this has no significant function). Both these structures rub on the rotator cuff and have contributed to causing the actual tear. If there is associated arthritis of the acromioclavicular joint then a small portion of bone is removed from the outer end of the collar bone (clavicle).



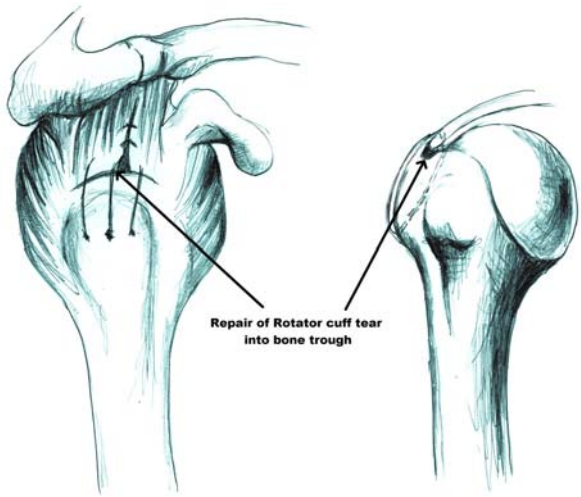
The rotator cuff is then inspected and the tear is repaired. On most occasions this involves drilling a bone trough into the Humeral head (bone) and sewing the muscle into that bone trough with a special type of stitch that never dissolves.

You will wake up in the ward with a drain coming out of your shoulder and your arm in a sling. Your shoulder will be reasonably numb if you have had a “block” but the “block” will wear off after which you can use the “patient controlled analgesia”. You may have a device which places local anaesthetic directly into the wound over an extended period of time. Otherwise the PCA and other medications will control your pain.

On a few occasions the tear is massive and a repair can only be achieved by placing the arm in a special splint with the arm elevated to 90 degrees away from the body. If this happens you will be required to wear that splint for 6 weeks. No physiotherapy is done for 6 weeks when a splint is required.

There are still other occasions with massive tears where the rotator cuff can only be partially repaired or cannot be repaired at all. Although most patients gain significant pain relief from the operative procedure they do not achieve as good a return of function as one would expect if the tear was able to be completely repaired.

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 second postoperative day you will commence a PASSIVE exercise program under the supervision of a physiotherapist. The shoulder movements are performed with the un-operated arm lifting the operated arm over the head while lying down. This is done so that the repaired muscles do not contract when the shoulder is moved. The rotator cuff muscle takes 6 weeks to heal in the bony trough. If the muscles do contract in the first 6 weeks the repair may be torn apart. Exercises are started early to avoid stiffness of the shoulder following the operation. It is normal for the exercises to cause some discomfort and I suggest you take some pain killers 20 minutes prior to exercising.

On the third or fourth postoperative day you will be discharged from hospital after I review you. Your day of discharge will depend on how much pain you have and how you are coping with the exercise program. In the immediate postoperative 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 pain killers 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. 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.

You will need to do the passive exercises at home under your own supervision for 6 weeks. You will not need to see a physiotherapist during this period unless you have difficulty doing the exercises yourself. The exercises need to be done 4 times a day under your own supervision. 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. **Under no circumstances are you to elevate or rotate the operated arm.** 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 at least 6 weeks.

I will review you at about 10 days to 2 weeks following surgery to remove the stitches and check your range of motion. If movements are a little slow I will arrange some formal physiotherapy but if progress is satisfactory then physiotherapy will not start for 6 weeks.

I will then review you 6 weeks post operatively when the sling will be removed and formal ACTIVE physiotherapy will be commenced. This is where you are allowed to lift the arm up under your own power. You will be given a set of exercises using Theraband, which is a resistive exerciser. This form of therapy, in most cases, will be supervised by a physiotherapist a couple of times a week, but it is necessary for you to do the exercises at home 4 times a day. It is not unusual to have some increase in pain when you commence the active exercise program.

You can begin lifting objects after 6 weeks but I do not want you lifting more than 2 kg. The reason for this is that even though the rotator cuff has healed into the bone trough enough to allow you to lift your arm actively at 6 weeks, the muscle does not fully and solidly heal to the bone for 12 months. I therefore do not allow heavy lifting or overhead activity for 12 months. I will however allow a progressive increase in the weight restriction but this will depend on your progress. A rough guide is 2 kg at 6 weeks, 5 kg at 6 months and 7.5 kg at 9 months. I allow full function at 12 months providing there has been an adequate return of power.

I permit breaststroke swimming at about 4 to 6 months depending on your progress but you will not be allowed to swim freestyle for 1 year.

Physiotherapy will take at least 12 months to achieve a full or near full return of function. It is not uncommon for complete pain relief to require at least 12 months of rehabilitation following surgery.

I advise all patients, if possible, not to return ever to jobs that involve heavy lifting and overhead activity. This is because there is intrinsic weakness in the rotator cuff and with heavy activity there is always a risk of re-rupture.

The success rate of the surgery is in the vicinity of 90%. The success rate and return of function is very dependent on the size of the tear, the bigger the tear the worse the result. Even with successful surgery you will never have a normal shoulder, but you should achieve good function and excellent pain relief. If you do not have surgery the tear will never heal and the tear will progressively increase in size with an associated increase in loss of function. If you then elect to have surgery at a later date that surgery is less likely to be successful, as the size of the tear has increased.

In about 10% of cases the rotator cuff does not heal and surgery fails.

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 failure of the rotator cuff to heal. You should be aware 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.

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.

March 2004

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