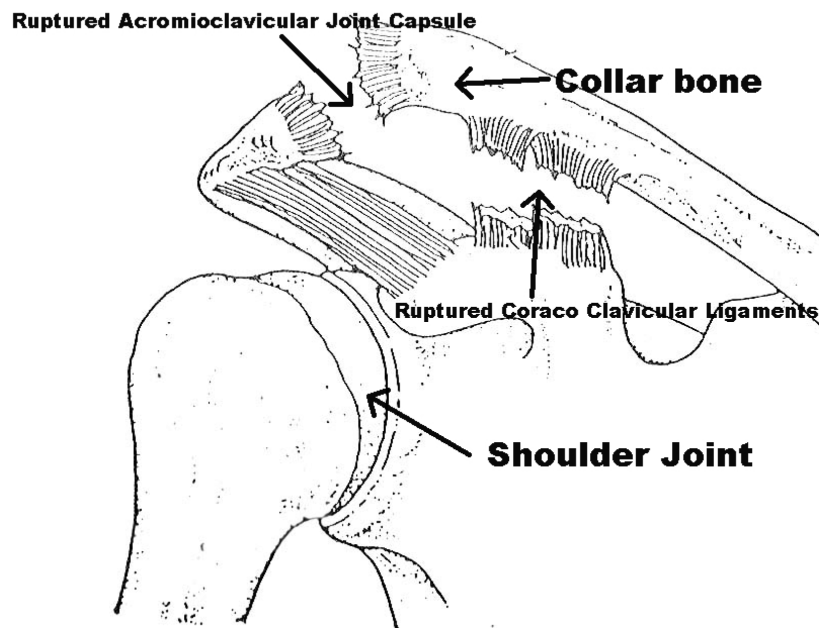
JEROME GOLDBERG - Shoulder Surgeon

PATIENT NOTES – ACROMIOCLAVICULAR SEPARATION

This is one of the most common injuries to the shoulder, especially due to a sporting accident, particularly cycling, snowboarding, skiing, or football. The injury results from a fall onto the point of the shoulder.

The injury varies from mild to severe. In a mild or moderate separation the ligaments involved are stretched. In a severe injury the ligaments that hold down the collar bone or clavicle are ruptured and the end of the collar bone appears very prominent.



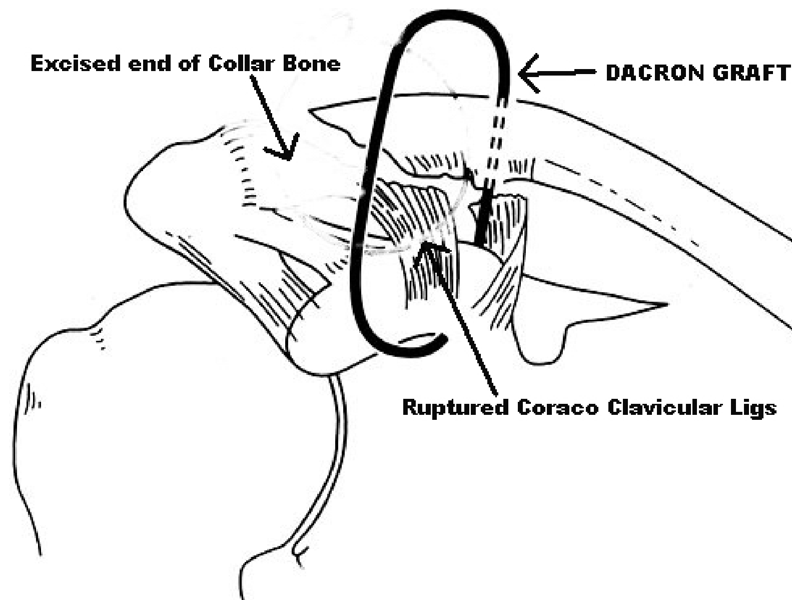
In the severe injury (called a Grade 3or Grade 4 injury) both the Coraco Clavicular ligaments and the Acromioclavicular capsule are torn leading to the deformity or bump on top of the shoulder. These ligaments never completely heal.
One can determine the severity of the injury from the clinical examination and xrays which may need to be done with you holding a weight.

A mild or moderate separation (grade 1 or grade 2) can be successfully treated in a sling for a few weeks followed by a course of physiotherapy and gradual mobilisation. On occasions surgery is required, but most people do well with non operative treatment.

The severe injury (Grade 3or 4) can be treated either nonoperatively or operatively.

Non operative treatment involves immobilisation in a sling for one to two weeks followed by a course of physiotherapy. The bump on top of the shoulder always remains prominent and occasionally arthritis of the acromioclavicular joint develops some years after the injury. The latter can be addressed at a later time with a small operation. The injury can be associated with ongoing pain in a small number of cases and also may lead to some permanent weakness in those persons who do heavy overhead work or do a lot of throwing.

Surgery involves a small 5 cm incision over the top of the shoulder. The end of the collar bone is excised, if it is badly damaged, and the torn Coraco Clavicular ligaments are replaced by an artificial ligament made out of a strong synthetic material made of Dacron.



It is important to note that such **surgery is much more successful when done within 3 weeks of the injury** and although it can be done later than that, the results of this particular operation may not be as good as if it was done soon after the injury. On occasions, this may need to be supplemented by a ligament transfer. In long standing and chronic injuries I recommend a different operation where a bone grafting procedure is done called a Coraco Clavicular Fusion.

For the reason above I recommend that anyone who does heavy manual or overhead work consider having the surgery done soon after the injury. I also recommend surgery in any throwing or contact athlete.

With most other patients I recommend a non operative approach but that patient must accept a small element of risk. That is if they do not do well with nonoperative treatment and then require surgery at a later date then that operation will not be as successful as an operation done immediately following the injury

THE SURGICAL PROCEEDURE

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). Should

you get an allergic reaction to the Phisohex then cease to use this immediately and inform our office. You are to avoid getting sunburnt. If you are on Anti inflammatory tablets or Aspirin, please check with your G.P., and if he or she says it is safe, stop the tablets one week 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 P.C.A.) 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 and the details of the surgery appear above

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

The morning 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.

You can leave hospital that day if you feel well enough. 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 3 weeks. 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 3 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

I will review you about 10 days following surgery to take out your stitches and check that the wound is clean and that there is no infection.

I will again review you at the 3 week mark, to take you out of the sling and start you on gentle movements. You do not do any specific exercises or physiotherapy at that stage because it may compromise the graft.

At about six weeks I will check you again and if your movements are fine I leave you to move your arm as you please. If the shoulder is a little stiff then I institute physio at that stage. I also may commence swimming at that time but it does depend on your progress. Do NOT get alarmed when you notice that the end of the collarbone rides up by 1 cm. This is a normal occurrence and without this you will not regain full movement.

Full activity, including all sports, can usually be started by 3 months.

Rarely, at about 6 to 9 months the Dacron graft irritates the bone and causes a condition known as "osteolysis". If this occurs the graft requires removal at about 12 months. By then other tissues have compensated for the damaged ligaments, and when the graft is removed, the collar bone remains stable in its position.

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, however, 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 your surgeon before 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 surgical practice is a subspecialty practice. I operate within my defined areas of interest and expertise. I believe that this results in better outcomes for patients and a very low complication rate. 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.

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