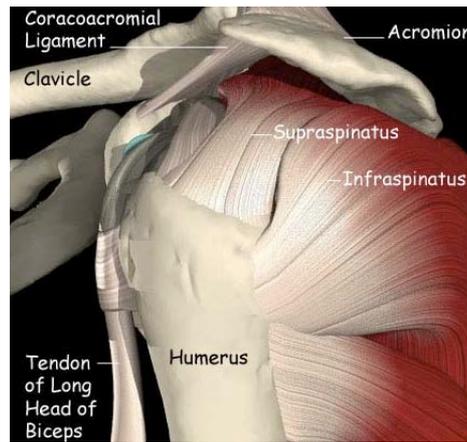
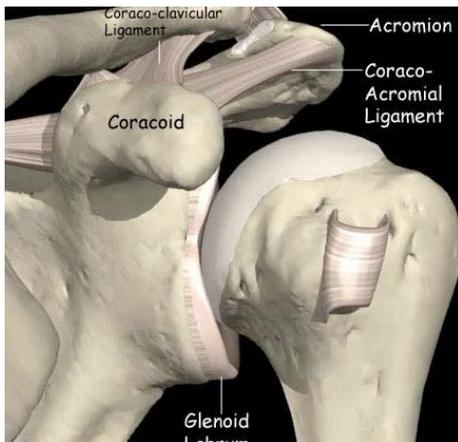




CALCIFIC TENDONITIS

The ball of the shoulder joint sits against its shallow socket (glenoid) like a golf ball on a golf tee. It is kept in place in large part by the actions of the rotator cuff muscles. The cuff is made up of four muscles: the supraspinatus, infraspinatus, subscapularis, and teres minor. These muscles come from the shoulder blade (scapula) and wrap around the humeral head to keep it in place during movements of the arm. Calcific tendonitis affects the tendons of the rotator cuff muscles.



WHAT IS CALCIFIC TENDONITIS?

With aging, degeneration can occur within the rotator cuff tendons. Part of the healing or scarring response within the tendon can result in degenerative calcification forming in the tendon, which can be seen on x-rays or ultrasound scans. Patients may have pain and disability, particularly with overhead activity. This is related to the tendon dysfunction and degeneration, rather than the calcification itself. Degenerative calcification is not calcific tendonitis.

True calcific tendonitis is a condition with an unknown origin. It occurs when cells within the rotator cuff tendon change their nature and deposit calcium into the tendon. This can be painful, especially at night, or can cause impingement symptoms. Typically the condition is self-limiting, ie it resolves without requiring any treatment after a period of time. Typically the acute, painful phase lasts 1-2 weeks, with the resolving phase lasting 1-2 months. It most commonly affects people aged 30-50 years old, women slightly more frequently than men. It can affect both shoulders in up to 25% of cases.

The stages of calcific tendonitis

Stage	I: Precalcifying	II: Formation	III: Resorbing	IV: Resolution
	Change in tendon cells to produce calcium	Calcium forms in tendon	Body reacts to absorb calcium	Healing and repair of the tendon
	No symptoms	Some rest and night pain Impingement symptoms	Often very painful at rest and on movement May get mild fever +/- feeling unwell	Some residual pain and stiffness



SURGICAL TREATMENT

If symptoms continue in spite of non-operative treatment, surgical treatment to repair the rotator cuff is recommended. Surgery is also recommended for large tears, those caused by acute trauma and those associated with significant weakness. The aim of surgery is to repair the torn tendons back down to the bone and allow them to heal, with the aim of restoring pain-free shoulder motion and function.

This is usually performed as an arthroscopic procedure. Two or three small puncture wounds are made. The joint is examined through a fiberoptic scope connected to a television camera. Small instruments are used to place anchors into the bone and these are used to secure the tendons back down to the bone.

Rehabilitation

The surgery is the easy part of rotator cuff repair. The rehabilitation of your shoulder after surgery is essential for the success of your treatment. Your surgeon and physiotherapist will advise you on the specifics of your rehabilitation, but the ultimate responsibility to exercise consistently is yours.

In general terms, you will be in a sling for 6 weeks, followed by about 6 weeks of gentle movement exercises, then 3-6 months of strengthening. It takes 18 months or more for the full benefits of the repair to be achieved. You should be able to get back to sedentary work within a week or two, but return to physical jobs can take 3-6 months.

WHAT ARE THE RISKS OF SURGERY?

All surgical procedures have some element of risk attached. The likelihood of a life-threatening surgical complication, or damage to major blood vessels or nerves is very rare and unusual. The procedure does require a general anaesthetic, with the associated risks and concerns. Your anaesthetist will discuss this with you.

The most common and important risks of surgery that have been reported are:

Continued pain: 5%

Usually all the pain is removed, in fact, often pain will gradually return to a small extent over the first 12 months after surgery. Some patients experience mild pain on overhead activities. Rarely is the pain not improved by surgery. Very occasionally (less than 0.5%) the surgery can provoke an excessive pain response called a regional pain syndrome. This is impossible to predict and often requires physical therapy and medication to overcome.

Infection: less than 0.1%

This is usually superficial in the wounds and is easily treated with antibiotics. Rarely the infection can be deep inside the joint and this requires surgery to wash the joint out.

Nerve damage: less than 0.1%

The axillary nerve runs close to the bottom of the joint and, if damaged causes weakness of the deltoid muscle and difficulty in raising the arm.

Stiffness: 1%

The shoulder will often become stiff after surgery and this usually settles with physiotherapy. Rarely the shoulder can become very stiff and require manipulation or arthroscopic release surgery. This risk is higher if you have diabetes or previous frozen shoulder problems.