

Calcific Tendinitis

What is it?

Calcific tendinitis refers to a buildup of calcium in the rotator cuff muscles. This deposit of calcium which builds up in the tendon can cause pressure within the tendon as well as causing a chemical irritation leading to pain. The cause of the calcium build up in the rotator cuff muscles is not known. It seems to be more common in people between the ages of 30 - 60 years of age. It does eventually disappear spontaneously but this can take between 5 - 10 years to resolve.

What are the symptoms?

Calcific tendinitis can be very painful. It is one of the worst pains within the shoulder. This is due to the chemical irritation and also the pressure effect of the calcium deposit reducing the space between the rotator cuff and the acromion which effects the normal function of the rotator cuff. It can also lead to sub acromial impingement between the acromion and the calcium deposit and the rotator cuff when lifting the arm overhead.

Clinical examination

Most patients demonstrate a markedly reduced range of motion with severe pain and tenderness of the shoulder.

What investigations are required?

Calcific deposits can be seen on plain x-rays in many cases. The doctor may also organise an ultrasound scan to find small deposits which can be missed on x-rays. This also allows the assessment of the size of the calcium deposit in all directions. An MRI scan may be required to further assess the shoulder although often this is not the best way to fully visualise a calcific deposit in many cases.

What are the treatment options?

Non-operative Treatment:

Calcific tendinitis can be treated with pain killers and anti-inflammatory medications. Physiotherapy is often recommended to keep the shoulder strong and flexible and reduce irritation while waiting for this to resolve. Ultrasound guided cortisone steroid injections can reduce inflammation and control the pain of calcific tendinitis.

An ultrasound guided needling of a calcific deposit may also be used. In this situation, a needle is injected into the calcific deposit and guided under ultrasound. The calcific deposit is then injected with a saline solution and the calcium is sucked out with a syringe and the area is then repeatedly washed.

Operative Treatment

If the pain is not controlled with non-operative measures described above, or the pain is extremely severe, surgery may be required. The goal of surgery is to debride the calcific deposit under direct vision using arthroscopic debridement. The calcific deposit is viewed through keyhole surgery and then localised with a needle. A small incision is made in the rotator cuff and the calcium removed. The released calcium often looks like toothpaste as it is removed. This procedure is often performed under day case or may require a single night in hospital.

Post-operative Rehabilitation

It is encouraged to use the arm as able with frequently no limitation. If a rotator cuff repair or another procedure is required, as a concurrent procedure, this may limit the rehabilitation.

Possible complications

The most common complication is stiffness (approx. 30%), sometimes referred to as Frozen shoulder. This is also more common in patients with diabetes and middle-aged ladies. If it does occur, it does not mean that further surgery is necessary. It just means the recovery may take a little longer