

Calcific Tendonitis

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Symptoms

Calcific tendonitis is a build-up of calcium within the rotator cuff tendon. When calcium builds up in the tendon it causes a chemical irritation and pressure between the rotator cuff and overlying acromion bone. The pain from calcific tendonitis can be extreme. In some cases people have even been known to go the emergency room because the pain is so severe (“calcific crisis”). Most people have full range of motion if examined, but the motion is limited by pain (the arm can be lifted by the examiner).

Causes

The cause of calcific tendonitis is unknown. In most cases there is no injury. Many people note symptoms after repetitive activity since this aggravates the chemical and mechanical response. It tends to be more common in mid-age and there may be a genetic relationship. Calcific tendonitis is not typically associated with elevated blood calcium levels or high calcium intake.

Treatment

Calcific tendonitis does eventually disappear spontaneously, but this can take several years. In the majority of cases (>80%) the condition can be managed conservatively with a combination of avoidance of repetitive overhead activity, anti-inflammatories, and injection(s). In most cases the rotator cuff is intact and the diagnosis is obvious on X-ray. Because of this an MRI is rarely needed and is not ordered unless symptoms are not improving.

Treatment includes:

Medications: Anti-inflammatories such as ibuprofen (Advil) and naproxen (Aleve) are used to reduce pain and inflammation. Occasionally, oral steroids such as prednisone can also be used. The max does for ibuprofen is 800 mg three times per day. The max does for naproxen is 500 mg twice daily. Prolonged usage should be avoided and these should be taken with food since they can affect the stomach lining. If one experiences an upset stomach these should be stopped. Anti-inflammatories are also contraindicated in patients on blood thinners.

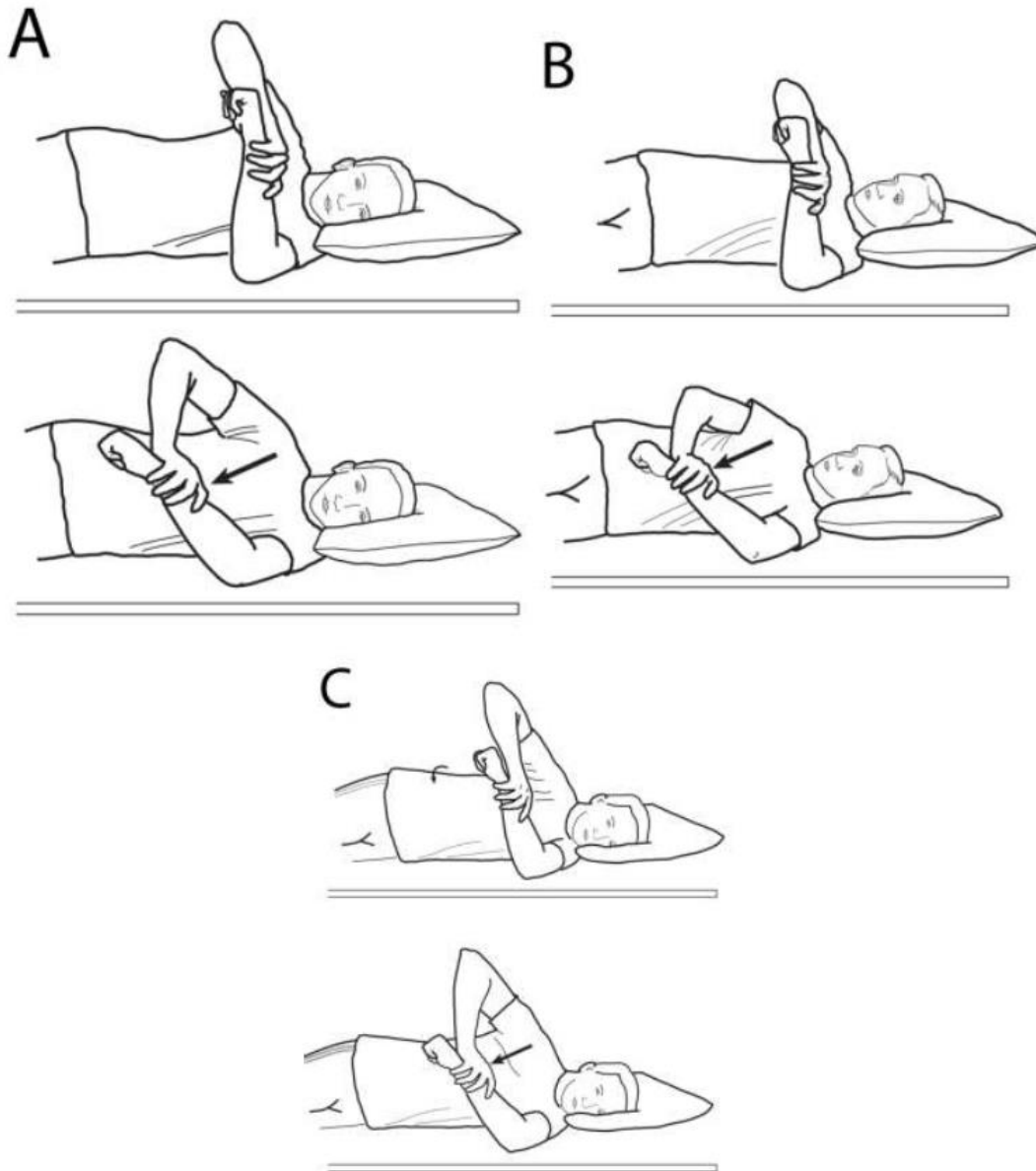
Injection: Injection of a steroid (cortisone) may be used to provide pain relief. I perform these injections with an ultrasound machine. This allows direct visualization of the joint and improved accuracy of the injection. Up to 3 injections over a 2 year period are allowed. With ultrasound we also have the opportunity to perform a “barbotage” of the calcium deposit and potentially help the condition resolve more quickly.

Therapy: In most cases I do not prescribe aggressive strengthening with physical therapy as this can aggravate the calcific tendonitis. Rather, gentle stretching is encouraged. You can see examples of these at the end of this handout and online under “Shoulder Stretches” at: www.KsShoulder.com/rehab.

Surgery: In the event that calcific tendonitis does not resolve with conservative care, surgery is an option. This is typically considered if symptoms are not improving after 4 to 6 months of conservative treatment. I remove the calcific deposits with shoulder arthroscopy. This procedure requires general anesthesia but patients go home the same day without issue. Two to three small incisions are made in the shoulder, a scope with a camera is inserted, and the deposits are removed. The long-term outcome of this procedure is very good and the risk of complication is very low. However, removal often requires repairing the rotator cuff after removal. Therefore, a sling is worn for 4 weeks after surgery. Specific motion exercises are started immediately. The sling is removed at 4 weeks and motion is progressed. Strengthening is allowed at 8 to 12 weeks, followed by gym activities at 3 to 4 months. Full recovery takes 6 months.

Stretching: Sleeper Stretches

Hold each stretch for 10 seconds, 10 repetitions per set, 4 sets, twice daily



Sleeper stretches. These exercises stretch the posterior capsule and are performed with patient lying on the side and using the opposite arm to passive internally rotate the arm. The exercises are performed with the patient (A) lying directly on the side, (B) leaning back 30 degrees, and (C) leaning forward 30 degrees. The different orientations encourage stretching of different portions of the posterior capsule.

You can see examples of these online under “Shoulder Stretches” at: www.KsShoulder.com/rehab

Stretching: Miscellaneous

Hold each stretch for 10 seconds, 10 repetitions per set, 4 sets, twice daily



Supine passive forward flexion is accomplished by using the opposite arm to stretch the involved shoulder.



The doorframe stretch is performed by placing an abducted arm against a doorframe and leaning the body forward to passively externally rotate and horizontally abduct the arm, so that the elbow passes posterior to the plane of the scapula. The stretch can be performed with the arm at varying degrees of abduction to stretch different portions of the anterior shoulder.

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