

Calcific Tendonitis of the Shoulder

A tendon in your shoulder has lost its flexibility because it has calcified. The problem will eventually resolve. Ask your practitioner about supplements.

(a) Symptoms

This problem is both severe and serious. *All* movement of the shoulder causes pain. The highest incidence is in adults aged 30 to 50 years.

(b) Pathology: What is Wrong?

The problem is the deposition of *calcium hydroxyapatite* (bone) crystals in any tendon of any muscle that is part of the *rotator cuff*. The deposits are not fully fledged bone and look chalky on X-ray. The most commonly affected tendon is that of *supraspinatus*. However it is also true that calcium deposits may be present without any symptoms; they are sometimes discovered accidentally.

(c) What Are the Rotator Cuff Muscles?

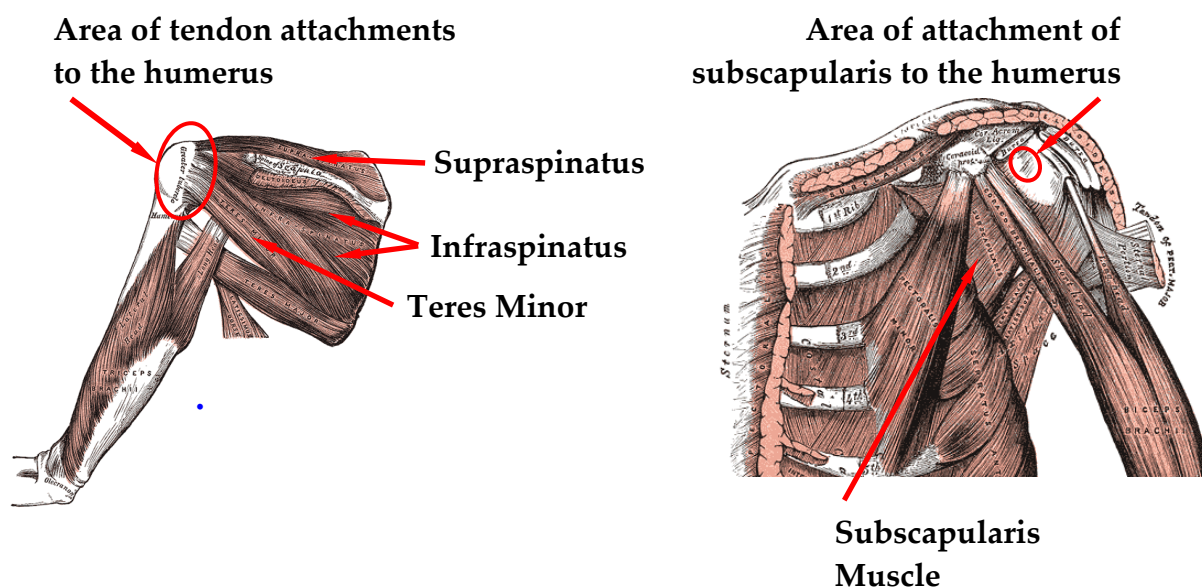
The term *rotator cuff* refers to that group of very deep muscles involved in moving the *humerus* (upper arm bone). The rotator cuff muscles include *supraspinatus*, *infraspinatus*, *teres minor* and *subscapularis*.

The functions of the rotator cuff muscles are:

1. *Supraspinatus* abducts the arm. That is, it moves it sideways away from the body.
2. *Infraspinatus* and *teres minor* rotate the humerus *outwards* (externally),
3. *Subscapularis* rotates it *inwards* (internally).

The muscles are illustrated in Figure 1 below.

Figure 1: Rotator Cuff Muscles. Back of Shoulder on Left, Front on Right



(d) Cause

Medically speaking the cause of this condition is uncertain. Overt trauma is not an issue and no systemic disease which could account for the calcification is present.

(e) Progression

The problem has four stages:

1. Deposition of the calcium, called the *formative phase*. In this phase symptoms may mimic ordinary inflammation of the tendon, called *tendonitis*.
2. A period of no change called the *resting phase*. If the calcium deposits are large enough movement of the shoulder may be restricted by the bone.
3. A period where the calcium deposits are resorbed, called the *resorptive phase*. Strangely this is generally the phase in which people experience the greatest level of pain.
4. In the final phase the normal fibrous nature of the tendon is restored. This is called the *postcalcific phase*.

(f) Treatment

From the point of view of any *massage*, very little can be done. The problem generally resolves spontaneously within 1-4 weeks.

However other approaches may provide some assistance.

Conventional Medicine

1. Surgery may be recommended if resolution is seriously delayed and you are experiencing severe pain.
2. A calcium-restricted diet has demonstrated some positive results.
3. Sometimes an injection of corticosteroids by a medical practitioner is of assistance.

Complementary Medicine

From the point of view of alternative medicine other nutritional approaches may be of benefit:

1. Magnesium deficiency leads to calcium deposition into soft tissue such as tendons even if calcium itself is deficient, so supplementation with magnesium may be beneficial. This should always be administered conjointly with vitamin B6.
2. Traditional mineral therapy assigns *silica* the role of controlling calcium metabolism. In this traditional therapy silica is used to dissolve *osteophytes* (bony spurs) in osteoarthritis. Supplementation may be useful.