

Why Does the Rotator Cuff Tear?

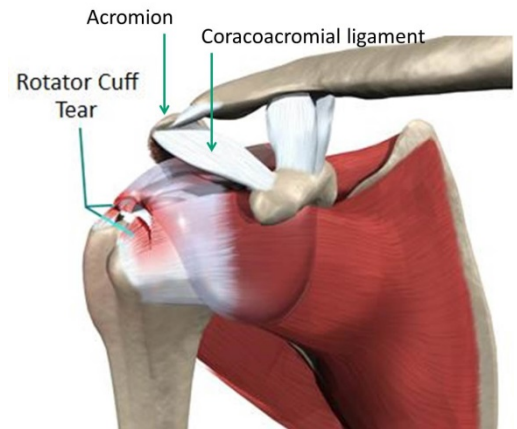
A rotator cuff tear can be a painful condition that can limit your ability to carry out your normal activities for several weeks, or months. In many cases the symptoms of a rotator cuff tear will settle without the need for surgery, but in some cases surgery is required to assist with regaining function of your arm.

Why Do These Injuries Occur?

Several factors make the rotator cuff susceptible to injury:

Anatomic location

The supraspinatus tendon of the rotator cuff is located directly underneath a bony 'roof' making it susceptible to 'impingement' against the acromion and coracoacromial ligament when you raise your arm above your head. Repeated impingement over time can lead to weakening, and eventual tearing of the tendon.

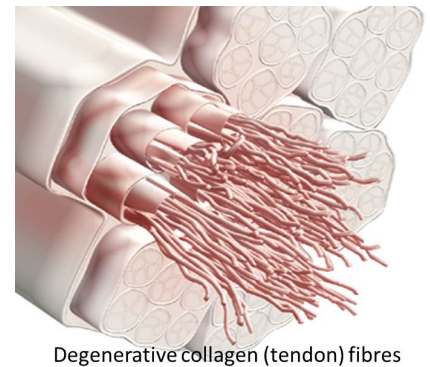


Degenerative tendon disease

Certain tendons in the body such as the rotator cuff and Achilles tendon are prone to 'degenerative' processes with advancing age, just like joints. Degenerative tendons undergo a change in their structure that results in the tendon becoming inherently 'weaker' and causing them to 'tear' more easily than a normal tendon. This degenerative process results from either tendon overuse where the tendon is unable to adapt to the increased load/activity, or from tendon underuse where it becomes weak and less able to withstand normal stresses.

Some medical conditions such as heart disease and other metabolic disorders, poor nutritional status and smoking can also contribute to poor tendon health making them more likely to tear at lesser loads.

In degenerative tendon disease a tear may result from a relatively minor event such as lifting something above your head or it may develop slowly over a period of time as a result of repetitive activity (usually overhead activity).



Degenerative collagen (tendon) fibres

Not always painful

Degenerative tears of the rotator cuff are increasingly common in those over 40 years of age and many of these tears are not associated with pain or symptoms. Because degenerative tears are more common in older age groups they often show up on ultrasound scans but this does not mean they are the source of pain. A careful clinical examination is needed to determine whether these tears seen on ultrasound are in fact the source of your shoulder pain or whether there may be another cause.

Overuse

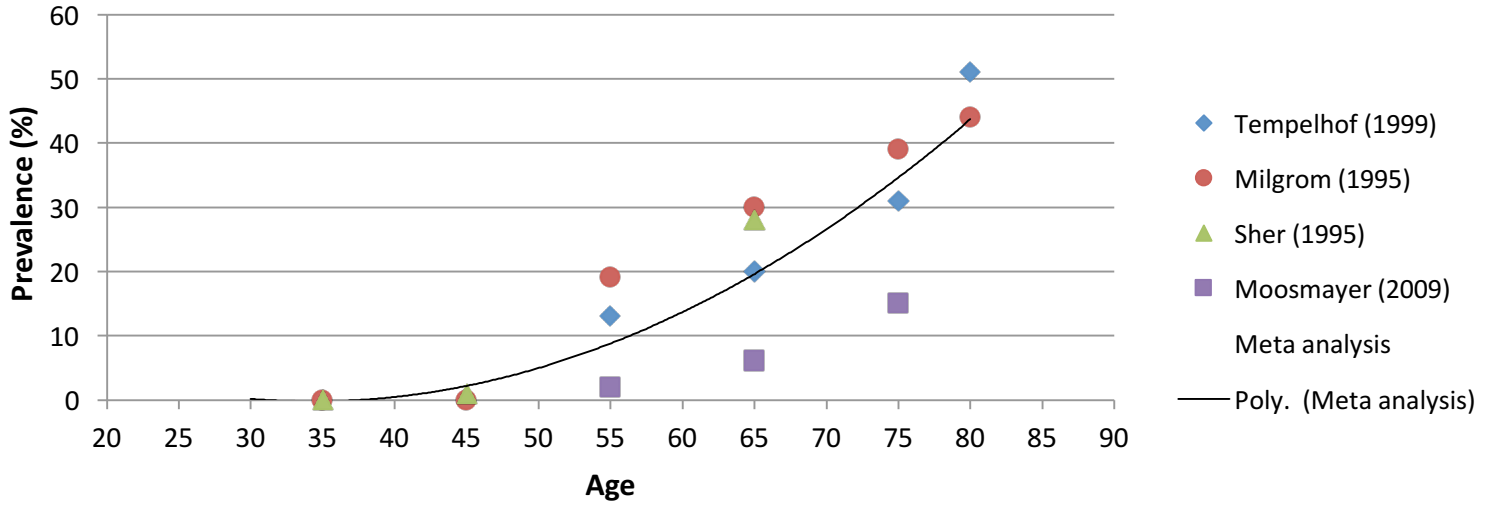
If the rotator cuff tendons are used repetitively with unaccustomed activity a tear may result. This often happens following a sport, recreational or 'home handy-man' activity that requires an intensive period of shoulder or overhead activity.

Trauma or overload

Trauma or sudden overload of the rotator cuff muscles may also result in a traumatic tendon tear. Examples include a fall or external impact on the shoulder, or a sudden forceful contraction of the shoulder muscles that exceed the muscles strength resulting in a tear of the tendon and/or muscle.



Prevalence of Atraumatic, Asymptomatic Rotator Cuff Tears with Age. (Full Thickness Tears)



Prevalence of Atraumatic, Asymptomatic Rotator Cuff Tears with Age (Partial Thickness Tears)

