



## **Rotator Cuff Tear**

The rotator cuff is composed of four muscles and their tendons. These are called the supraspinatus, infraspinatus, teres minor and subscapularis. These muscles are responsible for shoulder joint movement, and centering the humeral head around the socket during motion. The latter function is vital for the efficient function of the shoulder, preventing the humeral head from shifting upwards during elevation and rubbing against the acromion.

### **Cuff tear causes**

Degenerative: tear of the rotator cuff could be due to wear and tear with progression of age. Usually common in patients over the age of 65. Research has shown that this could be genetic in nature.

Traumatic: the rotator cuff can tear after falls on the outreached hand or when the arm is trapped, for example when falling off ladder, (subscapularis component tear). Traumatic dislocation can also lead to cuff tears, especially in patients who are older than 40 years of age.

### **Treatment**

Traumatic tears of the rotator cuff need repair as soon as possible as the tendon can retract and become difficult to repair. This is especially the case in patients who are younger than 65 years of age and have had a substantial injury.

Rotator cuff tear, which are degenerative in nature in patients who are over the age 65 can be treated with painkillers and anti-inflammatory medication, physiotherapy or cortisone steroid injections. The rate of successful treatment in these cases is 70-75%. Surgery to repair the tear may be required if the weakness and pain continues.

### **Surgery**

The rotator cuff can usually be repaired using keyhole surgery. The cuff can be repaired with minimal damage to surrounding tissue. Scars and recovery period are minimal although physiotherapy may be required post-surgery. On occasions the cuff may need to be repaired by a combination of keyhole and open methods, known as a "Mini-repair".

Arthroscopic repair can be carried as a day case surgery. The retracted tendon is mobilised. The foot print on the bone where the tendon used to live is prepared using the shaver to enhance the healing process. The tendon is attached to the bone using anchors, which are imbedded in the bone, holding the tendon down while its healing to the bone.

### **Physiotherapy after Cuff Repair**

Most repairs are now performed arthroscopically so there is less tissue trauma and reduced risk of excessive scarring.

Post-op stiff shoulder is now rarely a problem, so the priority is to protect the repair from breaking down.

Physiotherapy protocol selection will be determined not just by the size of tear, but also the shape of the tear, strength of repair and general tissue and joint condition.

Patients need to be educated about the rotator cuff function and lever principles to reduce the risk of stressing the repair prematurely. Patients are in a sling for 4-6 weeks and should not drive for six to eight weeks. The first four weeks involve: elbow wrist and finger exercises, armpit hygiene and restricted pendular exercises. Passive movement is built up by the physiotherapist from four to six weeks post-op.

### **Return to Functional Activities**

These are approximate and will differ depending on the individual.

Driving: 6-8 weeks, Swimming: small tears 6 weeks, large tear 12 weeks, Golf: 3 months, Lifting: no heavy lifting for 3 months, after this, just depends on how strong the patient is, Return to work: dependent upon the patient's occupation. With minor and medium tears, patients in sedentary jobs may return at 6 weeks. Major tears may take at least 8 weeks. Manual workers should be guided by the surgeon.