

# Rotator cuff tear

## Patient Information

### 1. What is a tear in the rotator cuff?

The shoulder is a 'ball and socket joint' with a bone (the acromion) and a ligament above it forming an arch over the joint. The space under the acromion is called the sub (below) - acromial space. The structures within the space include the bursa which is like a sack of fluid and the tendons of the rotator cuff muscles. There are **4 rotator cuff muscles**, the one in front is called scubscapularis, the one at the top is called supraspinatus and the 2 at the back are called infraspinatus and teres minor. The joining of these 4 tendons is called the **rotator cuff**. The function of the rotator cuff muscles is to keep the ball of the shoulder joint centered in its socket as the shoulder moves. The socket of the shoulder is very shallow and needs the extra help of these rotator cuff muscles to keep the ball of the humerus stable within the socket.

The tear most commonly involves the supraspinatus tendon (Fig. 1). These tears normally start after the age of 40 years. While most tears are due to degeneration (wear and tear) some can be cause due to injury. They cause symptoms of impingement (pain) and weakness.

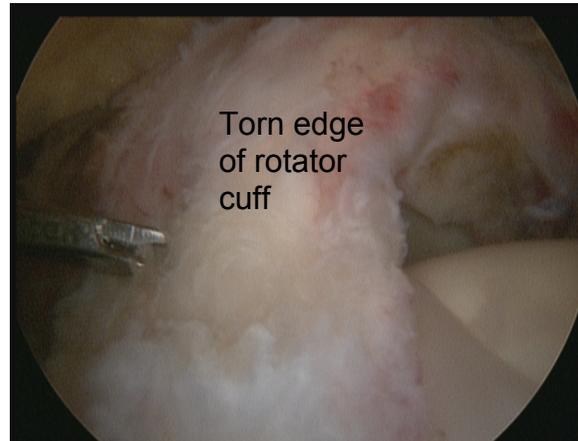


Fig. 1 Torn rotator cuff showing the pink edge of the tear and the white bone of the ball of the humerus on the right of the picture

### 2. How is rotator cuff tear diagnosed?

The diagnosis of rotator cuff tear is by the specialist Consultant taking an accurate history of your problem and by detailed shoulder examination. You will need an X-ray and maybe an ultrasound scan or an MR scan of your shoulder. The specialist may use an injection of steroid and local anesthetic to help with the diagnosis.

### 3. How is rotator cuff tear treated?

Rotator cuff tears can be treated both by non-surgical and surgical methods. The treatment depends on the age, the

function, the size of the tear and the results of any scans.

**Non-surgical methods:** rest, simple painkillers, injection and physiotherapy. The specialist may give you an injection of steroid and local anesthetic into the subacromial space to help with pain relief.

Physiotherapy aims to maintain your movements and to strengthen your rotator cuff muscles.

**Surgical method:** If the above measures fail to improve the symptoms then surgery can be considered. This is usually done by **keyhole surgery**. It is technically called **arthroscopic rotator cuff repair**.

Occasionally, if the tear is very large, open surgery may be required. Sometimes a patch of either synthetic or modified human tissue is required to bridge really big tears.

### 4. What happens during the surgery?

**Anesthesia:** you could either have a general anesthetic and / or a regional anesthetic. In the later the nerves supplying the shoulder and the arm is numbed by the use of local anaesthetic. You can choose to stay awake during

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the procedure. More information on regional anesthetic can be found in the anaesthesia section of this website and in anaesthesia patient information leaflets.

**The surgery:** The surgeon uses keyhole surgery to increase the subacromial space by releasing the ligament and by shaving bone from the undersurface of the acromion. The inflamed bursa is also removed.

The rotator cuff tear is then repaired using sutures and suture anchors to re-attach the tendon to the bone (Fig. 2). Sometimes the tear cannot be fully repaired or can only be partially repaired. Additionally a tendon of the biceps muscle (the muscle in front of your arm) may be cut to help with pain relief.

You may have few stitches or steristrips on your skin after surgery. Your arm will be in a sling after surgery.

### 5. What are the benefits and risks of surgery?

**Benefits:** reduced pain and improved shoulder function. The success of the operation depends on a variety of factors, such as age of the patient, size of the tear, quality of the tendon and muscles and the quality of the repair.

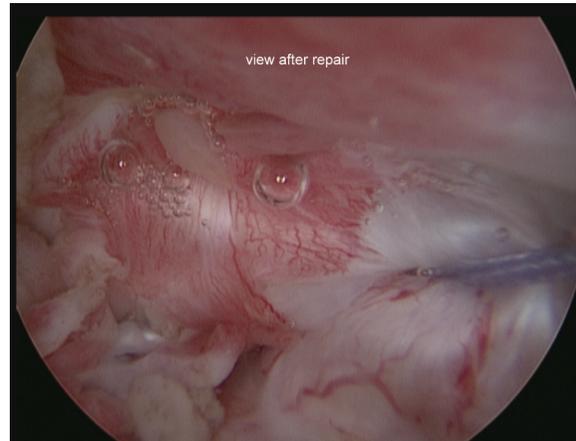


Fig. 2 Repaired rotator cuff tendon.

**Risks of surgery:** Infection, stiffness of the shoulder, injury to nerves, recurrent or persistent pain.

### 6. What happens after surgery?

In most instances you can go home on the same day of surgery. You will have a sling, which you should keep for 4 weeks. Swelling around the shoulder is normal after this surgery however it will settle down after a few days.

**Physiotherapy:** this is a very important part of the treatment after surgery. You will see a physiotherapist who will teach you exercises to help you regain your movement and the strength after

surgery. **Swimming** is useful and can be commenced after 6 weeks.

**Driving:** 6 weeks after the operation. However if you drive HGV it is advisable to delay driving till your shoulder is pain free and strong.

**Returning to work:** light duties, like office work; 6-8 weeks after surgery. Heavy work; 12 weeks after surgery. It can take up to 3 months for you to regain the strength in your shoulder.

**Follow-up appointments:** 2 weeks after surgery you will have to see either your practice nurse or a nurse in the hospital to check your wound. You will see the consultant 6 weeks after surgery.

We hope this information is useful and if you have any more questions. Please feel free to discuss these with your consultant. If you have any difficulties call the number below.