

ROTATOR CUFF TEARS AND REPAIR

This information aims to help you understand your condition and gain maximum benefit from your treatment. It covers the most commonly asked questions. However, every individual is different, and you should ask as many questions as you like.

ROTATOR CUFF TEARS

The 4 tendons of the rotator cuff surround the shoulder joint.

Tendons connect your muscles to bone.

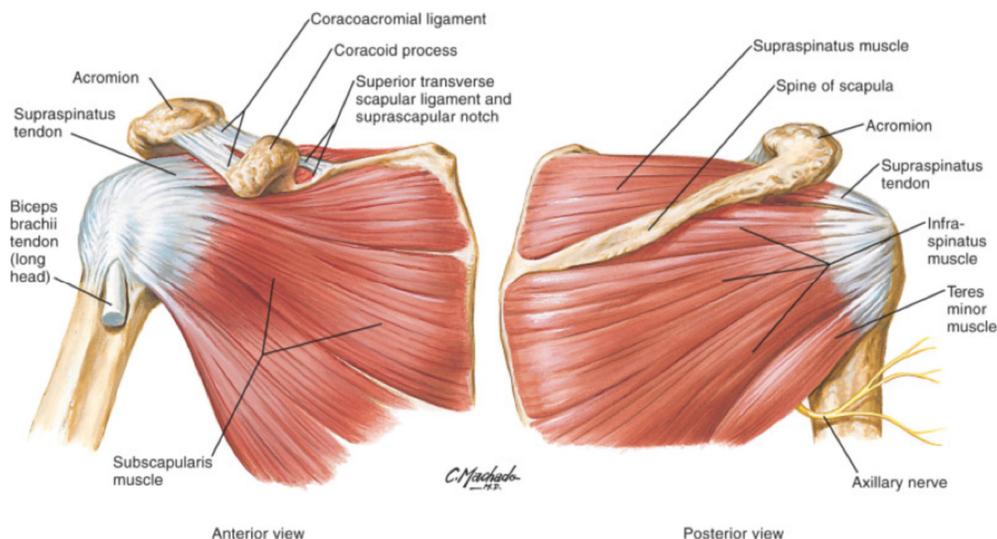
The muscles and tendons of the rotator cuff help move and stabilize the shoulder.

In a rotator cuff tear the tendon pulls away from the arm bone.

Tears are common. Around 10% of 65 year-olds are affected. But not all tears cause symptoms.

Tears do not heal spontaneously. The shoulder can become weak and painful.

Over time 40% of tears get bigger and become more symptomatic.



OTHER COMMONLY ASSOCIATED CONDITIONS

SUBACROMIAL BURSITIS

The subacromial bursa is a sac of fluid that sits above the rotator cuff

The bursa is commonly inflamed in rotator cuff tears

ACROMIAL SPUR AND / OR INCREASED 'CRITICAL SHOULDER ANGLE'

The shape of the acromion bone may have a role in the development of rotator cuff tears

LONG HEAD OF BICEPS INFLAMMATION AND WEAR

The LHB lies in a groove between supraspinatus and subscapularis it is commonly inflamed or worn

ARTHRITIS OF THE ACROMIOCLAVICULAR JOINT

The ACJ is a small joint at the top of your shoulder at the outer end of your collarbone

It is very commonly arthritic, but this is not always a source of pain

ROTATOR CUFF REPAIR SURGERY

Surgery is generally recommended for:

All patients under 65 with a 'full-thickness' tear

Patients of any age in which a repair is thought to be possible that have

- A large tear (involving 2 or more tendons)
- Weakness that affects day to day activities
- Not improved with physiotherapy

The aim of surgery is to reattach the tendon to the bone

Healing is slow so it takes time for maximal recovery to be reached after surgery.

THE OPERATION

You will come to hospital on the day of surgery. You will have a general anaesthetic. A nerve block may also be used. The surgery usually takes 1-2 hrs.

Almost all repairs can be done through arthroscopic (keyhole) surgery involving 3-5 small cuts.

TENDON REPAIR

The tendon is reattached using a number of small anchors and stitches

For a repair to be strong enough to allow healing to occur

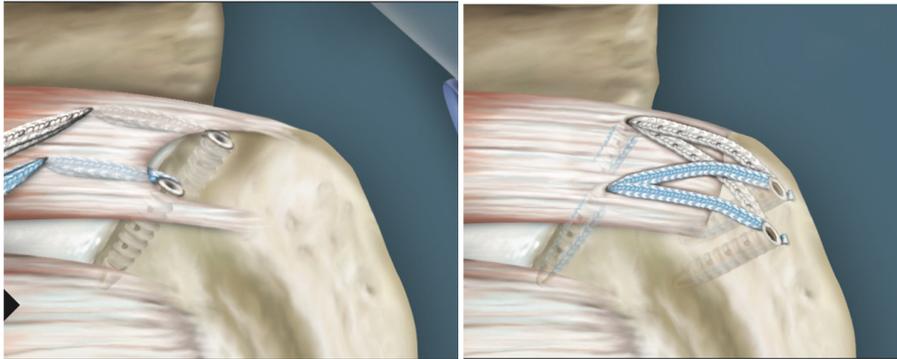
- The tendon has to be able to be pulled back to the bone

- The tendon has to be of good enough quality that the stitch doesn't cut through it

- The bone has to be strong enough to hold the anchor

It is possible to get an idea whether a tendon is repairable or not based on X-rays and MRI.

But a final assessment cannot be made until the time of surgery.



Images courtesy of Arthrex
A video of a rotator cuff repair
can be found at
www.drgeoffreysmith.com.au

Other procedures may also be performed

SUBACROMIAL DECOMPRESSION

The inflamed subacromial bursa is removed

Any excess bone is shaved away from the acromion.

LONG HEAD OF BICEPS (LHB) PROCEDURES

This decision to treat the biceps is made at the time of surgery.

The tendon is too small to be able to be repaired but other procedures work well.

- LHB tenotomy

In older people the best treatment is usually a 'tenotomy' (the worn tendon is removed from the shoulder). This can sometimes mean that the biceps muscle looks different after surgery (called a 'popeye' sign) but otherwise functions well though there may be some cramping pain in the biceps muscle that lasts for a few months.

- LHB tenodesis

In younger people a 'tenodesis' is performed because people who use the arm more for heavier tasks can get more pain after a tenotomy. In a tenodesis the LHB is removed from the shoulder and then reattached to the arm bone a few centimetres below the shoulder. If a tenodesis is performed the shape change of the muscle is less. This may be done arthroscopically (suprapectoral) or through a small incision (subpectoral). This choice between the two depends on where the worn part of the tendon is.

AC JOINT EXCISION

The outer 5-10mm of the clavicle is shaved away so the arthritic bone surfaces no longer rub together.

AFTER SURGERY

You may go home either on the same day or the day after surgery

You will see a physiotherapist before you leave hospital.

You will use a sling for 4-6 weeks.

The speed of recovery is variable. It can be rapid or seem slow. Most improvement occurs in the first 6 months. The end of recovery is around 12-24 months after surgery.

Further general information is available in the 'Information for patients undergoing surgery' leaflet.

APPOINTMENTS AFTER SURGERY

10-14 days; 6 weeks, 3 months, 6 months, 12 months.

REHABILITATION EXERCISES

Specific rehabilitation exercise sheets will be given to you in hospital and during your follow-up visits.

Only do the exercises shown to you in hospital and demonstrated to you in clinic. Do not remove the sling until you are told to do so. Your therapist will suggest whether you can do the exercises yourself at home or would be better with regular supervised physiotherapy sessions. You will need to get into the habit of doing the exercises several times a day for around 6 months.

MILESTONES

0-6 weeks (0-4weeks if Type 1 Rehab Protocol)

Sling full time

6-12 weeks:

Sling is removed.

Normal day to day use of the arm is allowed.

3-6 months:

Formal strengthening starts

6 months +:

Full activity

RETURN TO WORK/SPORTS

Work (light duties / office) 1-2 weeks

Swimming (breaststroke) 6-8 weeks

Driving 6-8 weeks

Work (manual) 3-6 mnths

Light lifting: 3-4 mnths,

Heavy lifting 4-6 mnths

Swimming (freestyle) 3-4 mnths

Golf 3-4 mnths

Maximum recovery 12 mnths

DRIVING

You cannot drive while you are using a sling.

Once you have been told that you can remove the sling you can drive when you feel that you have full control of the vehicle. It is your responsibility to make this decision.

LIFTING

In the long-term regular lifting of >10kg and any repetitive lifting over shoulder height is not recommended

LIKELY OUTCOMES

The main aim of surgery is to improve pain and function. Range of motion and strength may also improve although this is more difficult to predict. Patient satisfaction rates after surgery are around 95%. No surgery will result in a joint that feels and functions completely normally

WHAT IF A REPAIR IS PERFORMED BUT THE TENDON DOESN'T HEAL?

It is very difficult to work out whether a tendon has healed or not based on pain levels after surgery. We tend to rely on ultrasound and MRI. The pictures from MRI are superior but are difficult to assess before 12 months after surgery because the healing process can distort the images. I always ask for an MRI to be done 12 months after surgery. Even if there was a way to accurately decide on whether the repair had healed or not before 12 months it would not make any difference to treatment. This is because outcomes are still generally good even if the tendon doesn't heal (better than before surgery), and the alternative options involve more complex surgery.

IRREPAIRABLE TEARS

For a repair to be strong enough to allow healing to occur

- The tendon has to be able to be pulled back to the bone
- The tendon has to be of good enough quality that the stitch doesn't cut through it
- The bone has to be strong enough to hold the anchor

It is possible to get an idea whether a tendon is repairable or not based on X-rays and MRI. But a final assessment may not be able to be made until the time of attempted repair. If a repair is not possible the tear is called 'irreparable'

PARTIAL CUFF REPAIR

In this situation it may only be possible to repair some of the tear. Outcomes are usually good, but not as good as after a complete repair.

STANDARD ADDITIONAL PROCEDURES

Subacromial decompression, biceps procedure and ACJ decompression will improve some of the pain

SUPRASCAPULAR NERVE DECOMPRESSION

The suprascapular nerve sits just next to the supraspinatus and can be trapped in very large tears. The nerve can be released by cutting a small ligament to give it more room. This is done at the same time as an attempted repair

I perform this if a lot of pain is felt at the top and back of the shoulder

AUGMENTING A PARTIAL REPAIR WITH A 'SUPERIOR CAPSULAR RECONSTRUCTION'

This is an option if a partial repair of the cuff is possible (subscapularis and infraspinatus) but supraspinatus cannot be repaired. If subscapularis and/or infraspinatus cannot be repaired then SCR is not possible

FURTHER TREATMENT OPTIONS FOR IRREPAIRABLE ROTATOR CUFF TEARS AND CUFF REPAIR 'FAILURES'

A prolonged period of rehabilitation is usually recommended. Apart from the use of the aforementioned procedures (which can be considered if not already performed), two other alternatives also exist

REVERSE SHOULDER ARTHROPLASTY.

This design of shoulder replacement allows good shoulder function even if the rotator cuff is torn. It is very successful, but because it is a replacement operation it is recommended for older patients. It is the only option if arthritis has developed because of a rotator cuff tear (cuff tear arthropathy).

TENDON TRANSFER

Another tendon around the shoulder is rerouted to take the place of the torn rotator cuff. This is generally only recommended in younger patients (who are too young for reverse shoulder arthroplasty) with very large tears and no arthritis. While pain relief is generally good range of motion and strength are limited to some degree. It may make future treatment with a reverse total shoulder arthroplasty more challenging.