# ROTATOR CUFF TEAR Dr V K Pandey Kalyani knee & shoulder Clinic

## What is Rotator cuff?

Rotator cuff is a hood formed over the ball of the shoulder joint. It is formed by joining together of tendons of four muscles inside the shoulder. These muscles form the deeper layer of shoulder muscles. Their function is to stabilize the shoulder so that the other strong muscles of the shoulder can perform their function. It is only by synchronized action of the deeper (cuff muscles) and those of the strong (superficial) muscles that we are able to position our arm in so many different positions.

# Why does it get torn?

There are two main reasons. One is that due to aging process, the tendons forming the cuff become weak. In such cases, just a minor trauma, or sometimes even no trauma, can cause rupture. On the other hand, the rupture could occur due to the strong force with which the muscle is pulled while trying to avoid a fall.



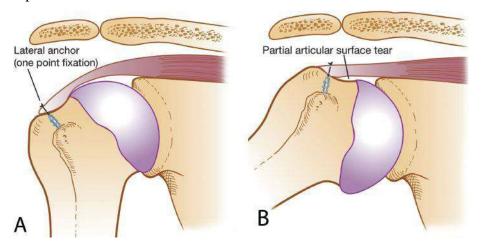
# How does one recognizes that the cuff has ruptured?

Usually, there is acute pain and inability to lift the arm. One may just feel weak in trying to lift the arm to pick things up with the hand. An examination by a shoulder specialist, and MRI can detect the rupture for sure.

## What is the treatment of rotator cuff tear?

Partial rupture has the potential to heal by itself. Full thickness tear involving a small portion may not progress if aggressive use of the shoulder is avoided. All other tears have

a tendency to progress with time, and repair is the best option. Upto a certain stage, a patient may feel only little disability, and the tear may be diagnosable only on MRI examination. After that pain on using the shoulder, pain at all the time, and weakness of the shoulder occurs. In an extreme case, one may find it difficult to lift the shoulder altogether. The healing of primarily traumatic tears is better than that of the degenerative tear(which occurred without much trauma). The sequelae of long term rotator cuff tear is joint degeneration. This causes continuous pain, and the only remedy is shoulder replacement.



#### What are the different methods of repairing the rotator cuff tear?

There are three methods:

*Open surgery*: This is a conventional technique being done for nearly half a century. It involves making a 8-10 cm cut, opening the shoulder by detaching the muscles on it, and then repairing. The disadvantages (common to any open surgery): Bigger scar, More pain, More stiffness etc.

*Mini- Open Surgery*: In this, most of the operation and assessment is done by looking through arthroscope. The last step of fixing the torn tendons to the bone is done by making a small cut (3-5 cm). The muscles are not detached, hence the disadvantage is not there.

**Arthroscopic surgery**: In this technique the whole repair is conducted Arthroscopically, through only a few small cuts. It has all the advantage s except that it may not be possible

to do a good repair in all the cases. Wherever possible, this is the method of choice these days.

#### What is the success rate of the operation?

If done for purely traumatic tears the success rate is nearly 95%. As the age advances, and there is a component of degeneration as the background cause, the success rate drops to 70%. In those cases, where the tear occurred without much injury, which means these are mainly degenerative tears, the repair may fail. Tear at a younger age, injury as the main cause of tear, small to medium size tear, repair done within a short time after the tear, surgical technique, and post operative physiotherapy has lot to do with achieving success in these cases. In most cases, it is possible to use the shoulder fully. You can drive the car after 3 months, and resume normal activities by 4 months.

### What are the possible complications of surgery?

The possible complications are as follows:

- Inability to achieve a good repair: This happens due to poor quality of the tendons to be repaired (due to degenerative nature of the tear), or due to inability to bring the torn edge to the bone (if the delay in repairing has been substantial). Sometimes this could be due to technical failure.
- Failure of healing of the tendons: this is sometimes not in control of the surgeon, depends upon the condition of the case.
- Stiffness: this happens in 30% of cases, takes 4-6 months of home physiotherapy. In some cases it may take longer.
- Infection: this can occur in any operation, but we take due care, and the infection rate matches with the best in the world.
- Not able to achieve optimum power back: this is due to inherent weakness of muscles due to lapsed time before repair.

#### How much does it cost?

The cost of surgery varies from 40 thousand to 60 thousand. You may discuss this in detail when you come for fixing the date.

#### How long does it take to recover?

It takes 6-8 months for the complete recovery. The arm is rested for 6 weeks in a sling. This is required for healing of the tendon to the bone. During this period the person can do all his activities, but cannot use the shoulder. In the subsequent 6 weeks, the shoulder is mobilized with support. It is after 3 months that the shoulder can be used for day to day activities. The muscle power builds up over the next 2-3 months. Most patients do well with home physiotherapy, some need supervised physiotherapy in the clinic.

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