A PATIENT EDUCATION GUIDE:

ARTHROSCOPIC ROTATOR CUFF REPAIR

This is a *brief* overview of what you, the patient, should know about getting an **Arthroscopic Rotator Cuff Repair**. If you have any questions, please write them down and bring them to your next consultation so Dr. Kassam can go through them with you in detail.

What is a rotator cuff tear?

The rotator cuff is a collection of four individual tendons that surround the shoulder joint and work together to help move your shoulder. They include the Subscapularis (located in the front of the joint) the Supraspinatus (located on top of the joint), the Infraspinatus and the Teres Minor (both located near the back side of the joint).

Sometimes these tendons can become injured through either direct trauma or from overuse and age-related degeneration. **Injuries can involve a single tendon or up to all four**. The degree of injury can range from fraying and inflammation, to partial tearing, to a full-thickness tear. **The type and size of the rotator cuff injury determines the type of treatment you will require.**

Impingement with bursitis

When the rotator cuff is not torn, but rather irritated due to rubbing on the bone above the rotator cuff (called the acromion) it is called "impingement". This can be painful and can reduce your ability to move your shoulder. The fluid filled sac that separates the space between the rotator cuff and the acromion is called the bursa. Inflammation of this bursa is called bursitis. Depending on the level of irritation, patient age and symptoms, **this condition can be treated with physical therapy, injections in the shoulder or with surgery**. Surgery usually involves cleaning up the joint, removing the bursa and, if necessary, removing some the undersurface of the acromion to help create more space for the rotator cuff to move freely.

Partial rotator cuff tear

In some cases, a rotator cuff tendon can be partially torn. This can cause reduction in strength and pain. Sometimes, the partial tear can "scar-in" and symptoms can improve with time. Age, level of activity and amount of tearing (usually described as a percentage, i.e. a 50% tear involves about half of the thickness of the tendon) usually determines treatment. Again, **this can involve physical therapy, injections or surgery**. Surgery can involve simply cleaning up the frayed tendon, repairing the torn tendon or even applying a patch to help with healing and increase the thickness of the tendon.

Full-thickness rotator cuff tear

When a tendon is 100% torn, it is called a full-thickness tear. We categorize these tears based on their size and they can range from small (<1cm), medium (1-3cm), large (3-5cm) to massive (>5cm). **These injuries usually require surgery and the tear size helps determine the treatment needed**. This can range from repairing the torn tendon fully, partially or using a graft to bridge the empty space left by the massive tear. There are also muscle/tendon transfer options available for certain patients.

How is an Arthroscopic Rotator Cuff Repair performed?

The vast majority of rotator cuff repairs performed by Dr. Kassam are done arthroscopically. Another term for arthroscopic surgery is "key-hole" surgery. It is a minimally invasive way to address problems within the joint. It involves making **several, small (less than 1 cm) incisions** around the joint to insert a camera and multiple tools that allow the surgery to be performed successfully.

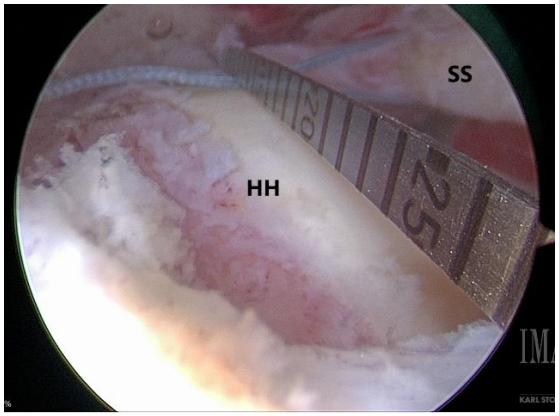
The first step to the procedure involves inserting a camera into the shoulder to properly identify the injury and to see if there are any other problems in the shoulder that need to be addressed at the same time. Once the tear is identified, it is assessed to see whether it is partially or fully torn. If it is partially torn, the frayed tissue is removed and the tear may or may not be repaired. This usually depends on the amount of tendon involved (50% or more involvement is the usual benchmark to proceed with a repair).

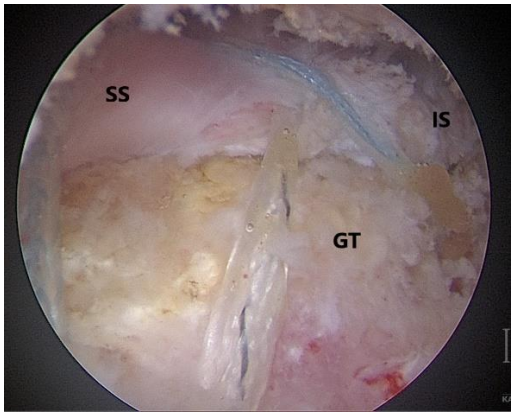
If fully torn, multiple tools are used to "pull" the tendon back to its original position on the bone. The tendon is then repaired back to the bone using "anchors" (similar to screws) that have "suture" (similar to thread) attached to them. The anchors are placed into the bone and the suture is run through the tendon. This allows the tendon to be "tied down" and secured.

The anchors can be made of different types of material such as metal, plastic or bio-degradable composite materials. A variety of factors such as age, bone quality and tear pattern can determine the type of fixation needed. Dr. Kassam usually performs this procedure with plastic or bio-composite anchors.

The size of the tear, the strength of the bone and the quality of the torn tendon can determine how many anchors are needed. This can range anywhere from one to four or more anchors. More anchors may be needed if a graft is being used.

Below are two arthroscopic pictures showing a **Rotator Cuff Tear (left) being measured** and a **Rotator Cuff Repair (right) with multiple anchors**





HH: Humeral Head, SS: Supraspinatus, IS: Infraspinatus, GT: Greater Tuberosity

What should I expect when I have surgery?

The Day Before Surgery

- You will receive a call from the hospital before surgery telling you what time you should arrive. It is normal to arrive several hours ahead of your scheduled time to allow for the check in process.
- **Do not eat or drink anything after midnight the night before surgery.** This includes water. You may take sips of water to swallow pills if required and cleared by your medical team. **Your surgery may need to be cancelled if you do not adhere to these instructions.**

The Morning of Surgery

- Arrive to the hospital at your instructed time.
- If possible, arrive with a family member or friend who can assist with your check-in and help you remember any last-minute questions. There will be a place for family and friends to wait while you are in surgery. **You will require someone to take you home if you are leaving the same day of surgery.**
- A nurse will check you in.
- The anesthesia team will meet with you to discuss their plan for anesthesia during surgery and will be able to answer any questions you may have for them.

After Surgery

Hospital Stay

- **Most of our patients leave the same day, several hours after surgery.**
- During this time your nurse and anaesthesia team will help to manage your post-operative pain. It is important to know that you will have some pain, but the medications should help make your pain manageable.
- **You will require someone to take you home if you are leaving the same day of surgery.**
- A Care Coordinator can be available to help, if you need any other services when you are discharged home.

Home

- Wear your sling at all times except for bathing and doing your exercises demonstrated by the therapist.
- Keep your bandage dry while bathing. This may require covering it with a plastic wrap (i.e. “press-and-seal”) or taking sponge baths.
- Do not use your operative arm to carry or lift anything. Do not use your operative arm to push yourself up from a chair or when getting off the toilet.
- No driving while using your sling and while you are taking your narcotic pain medications.
- Do your best to wean off your pain medications.
- Many people are most comfortable sleeping in a more up-right position after surgery. You can opt to sleep in a recliner or prop yourself up on pillows in bed.
- If you received an ice machine please use as instructed to help reduce swelling. You may also use ice packs or bags. Do not use for longer than directed and always avoid direct skin contact.
- Follow your physical therapy instructions carefully if you have been given them.

Follow up

- Your first follow up appointment is usually 10-14 days following surgery.
- At this visit we will discuss your progress and check your incision. We may or may not take x-rays. We may also remove your sutures/staples at this time
- We will determine if you are ready for outpatient physical therapy.
- If you are able to start physical therapy you will be given a referral with the specific instructions both you and your therapist should follow.

I hope this has helped clarify some of your questions surrounding an **Arthroscopic Rotator Cuff Repair**. As always, do not hesitate to ask questions and schedule a follow up appointment should you require any further discussion.

Best,

Hafiz F. Kassam MD, FRCSC

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