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Patient Information Sheet: Rotator Cuff  
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The rotator cuff is made up of four muscles in your shoulder. These four muscles (subscapularis, supraspinatus, infraspinatus and teres minor) connect your humerus to your shoulder blade and act to stabilize the ball of your shoulder within the shoulder socket. Injury to the rotator cuff may consist of tendonitis, acute tearing or chronic tearing.

### Rotator Cuff Tendonitis:

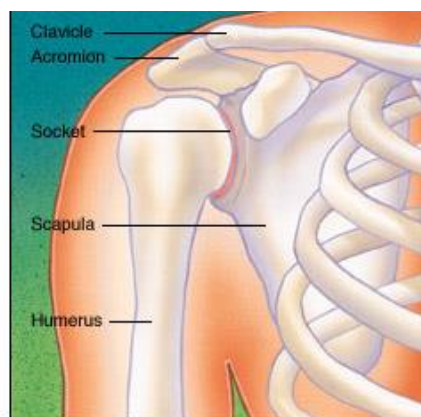
Rotator cuff tendonitis is caused by shoulder overuse or injury. Often overhead activities, overuse or acute injury will cause inflammation and strain of the rotator cuff musculature.

This may occur from poor posture or activities such as loading equipment onto the top of a car or repetitive baseball throwing. In addition, trauma to the shoulder such as a fall may cause inflammation of the rotator cuff. Often shoulder “impingement” is a cause or worsening factor of rotator cuff tendonitis. This occurs when the acromion (a portion of a shoulder bone) impinges upon the rotator cuff. The undersurface of the acromion acts like sandpaper and causes rotator cuff irritation. This may in time progress to a rotator cuff tear.

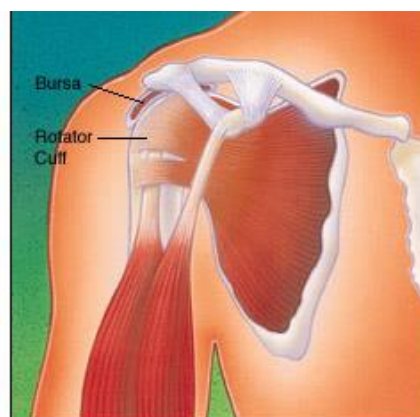
Symptoms of rotator cuff tendonitis include pain located primarily in the top and front of the shoulder joint. This pain will often worsen with overhead activity and during sleep. It is also common to experience weakness with shoulder activity.

Rotator tendonitis is often diagnosed by physical examination. X-ray and MRI may be used as adjuncts to diagnosis. The presence of a spur or bump on the undersurface of the acromion may be detected on x-ray. Often an MRI will be used to examine the condition of the rotator cuff and assess whether the rotator cuff is torn.

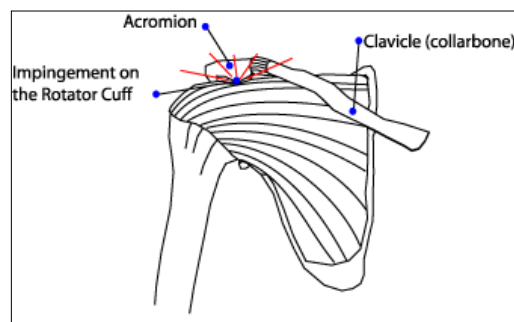
Often rotator cuff tendonitis can be treated without surgical intervention. First line treatment consists of Anti-inflammatories such as Ibuprofen, ice and rest. A cortisone injection may be placed into the shoulder region. Cortisone is a strong anti-inflammatory medication that works to decrease



Normal Shoulder Joint



Normal Shoulder Muscles and Tendons

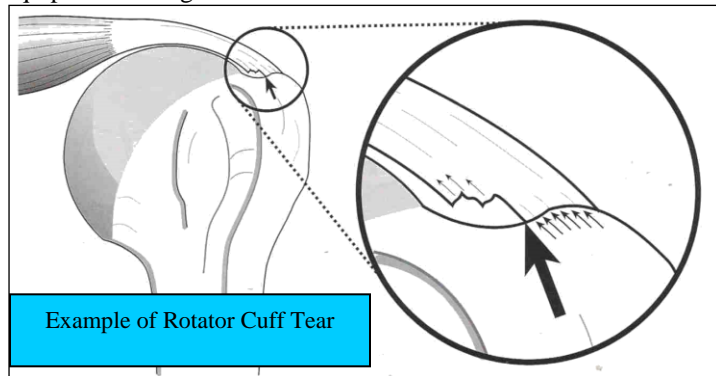


inflammation and pain within the rotator cuff and surrounding bursa tissue. Physical therapy may also be utilized for rotator cuff strengthening and pain reduction

Surgical decompression is an option for patients who do not respond to the above treatments or have a hooked or impinging acromion. The surgery is conducted with arthroscopic equipment. This means that we will use a small camera and small equipment through little incisions to remove some bone on the undersurface of the acromion. This opens up space for the rotator cuff to heal and properly function.

### **Rotator Cuff Tear:**

A rotator cuff tear occurs when one or more of the rotator cuff muscles detaches from its attachment on the humerus. Rotator cuff tears may be acute from injury or chronic from years of impingement or tendonitis.



Acute tears may occur from a fall on to an outstretched arm or during a quick movement such as a sudden thrust of a kayak paddle. Often this will be accompanied by extreme shoulder pain that will often linger after the initial insult. Pain will limit shoulder movement and often strength will be decreased. Chronic tears usually occur in patients over the age of 40 and in the dominant shoulder. Patients often report gradually worsening pain and decreased arm mobility. The pain often wakes the patient up from a sleep.

In addition to physical examination an MRI is utilized to detect a rotator cuff tear. The MRI will often reveal the torn cuff and demonstrate the extent of the tear. The tear may be partially torn or completely torn. The size of the tear may vary from small to massive and this may also be seen on MRI.



MRI demonstrating a rotator cuff tear

Surgical repair is the treatment of choice for symptomatic and disabling rotator cuff tears. The rotator cuff will not heal back to bone without surgical intervention. An arthroscopic rotator cuff repair with sub-acromial decompression is often performed. This means that a small camera and small equipment will be used through tiny incisions to stitch the rotator cuff back to its attachment on the humerus. At the same time we will decompress or open up the space around the rotator cuff to permit healing.

### **Pre-Surgery:**

- Anti-inflammatories such as ibuprofen or aspirin must be stopped 5 days prior to surgery. Utilize ice and elevation to control pain and swelling during this period
- On the night before surgery, do not eat after midnight (no chewing gum or lozenges)
- On the morning of the surgery you may have your daily pills with a sip of water
- Your surgical time will be confirmed the day before the surgery by either Dr. McKeon's office or the surgical center/hospital. The original time may be adjusted based on patient needs and equipment availability. Dr. McKeon's office has very little control over the time changes.
- Patients should bring their MRI and X-rays to the surgery
- If the surgery is done at our Waltham facility, the person who is accompanying you is welcome to a free one-day gym pass

### **Surgery:**

The length of an arthroscopic rotator cuff repair will take up to 2 hours depending on the extent of the tear. An arthroscopic sub-acromial decompression will often last one hour. Your nurse will bring you into the pre-op area where you will have an IV placed and meet with your anesthesiologist. General anesthesia is

utilized to assure a comfortable surgery. This means that you will be “asleep” and completely unaware of the surgery until you wake up in the recovery area. Most patients will have a small tube placed in their windpipe; formal intubation may not be required. Like any surgical procedure, there are risks. These risks are extremely rare and consist of nerve injury, infection and shoulder stiffness, and re-tear of the rotator cuff. It is important to note that you may experience post-op clicking of the shoulder during joint motion. This is a result of scar tissue formation and is common after shoulder surgery

### **Post-Surgery:**

After the surgery is completed, you will awaken in the operating room and be moved to the recovery area. Most patients generally recover smoothly and have minimal pain due to local pain medication that is used at the completion of the surgery. Family members and guests are permitted to visit in the recovery area once the patient is fully awake and feeling comfortable; this may take up to 2 hours after the surgery is completed.

- A pain medication prescription will be provided prior to discharge. You may take the prescribed medication as directed. You should expect to experience minimal to moderate shoulder discomfort for several days and even weeks following the surgery. Patients often only need prescription narcotics for a few days following surgery and then can switch to over-the-counter medications Tylenol or Ibuprofen. A pain pump may be inserted during the surgical procedure. This pump slowly discharges numbing medication into the shoulder joint for 48 hours. After 48 hours, remove the pain pump while removing the shoulder dressing. Just give the plastic tubing a little tug pulling away from the shoulder. If used detailed instructions will be provided by your recovery nurse.
- Ice should be applied to the shoulder up to three times a day for 20 minutes until swelling subsides
- At the completion of surgery, you will have a sling placed on your arm. If a rotator cuff repair was performed you will be required to wear the sling at all times with the exception of when performing exercises, showering and dressing. If only a sub-acromial decompression was performed (no rotator cuff repair) then the sling may be used for comfort only
- If the bandage is draining, reinforce it with additional dressings for the first 48 hours. After 48 hours remove the bandage and place band aids over the incision sites. Showering is acceptable at this time. Do not scrub the shoulder.
- There is an exercise sheet at the end of this packet. Conduct exercises three times daily until further directions are provided.
- If only a sub-acromial decompression was performed and the rotator cuff was intact then you will be provided a prescription for physical therapy. Make an appointment for physical therapy within one week after your surgery
- Take one 325 mg (full strength) aspirin daily for 14 days (unless otherwise instructed) to prevent blood clots.
- Follow up with Dr. McKeon or Jason Rand PA-C within 2 weeks from the date of surgery.
- Eat a regular diet as tolerated and please drink plenty of fluids.
- You are unable to drive a car as long as you need to utilize a sling. For patients who had only a decompression driving may start when they are comfortable, often 3-7 days after surgery. Patients who undergo rotator cuff repair will have to utilize a sling for 4 weeks or longer depending on the extent of the repair and thus unable to drive.
- Call office for Temperature >102 degrees, excessive swelling, pain or redness around the incision sites.
- Plan at least a week away from work or school. Utilize this time to decrease swelling and participate in your home exercise program. You may be able to resume work (depending on type of work and setting; very variable) once the pain and swelling resolves.
- The above are guidelines and only intended as generalities.

Post-operative exercise program prior to the start of traditional physical therapy



***Pendulum, Circular*** - Bend forward 90 degrees at the waist, using a table for support. Rock body in a circular pattern to move arm clockwise 10 times, then counterclockwise 10 times. Do 3 sessions a day.

**It is important to note that you may experience post-op clicking of the shoulder during joint motion. This is a result of scar tissue within the shoulder and common after shoulder surgery**



Rehabilitation for patients who underwent a subacromial decompression and rotator cuff repair will vary depending on extent of surgery and pathology, see prescription for specifics. The following are only general recommendations

#### Post-op Rehabilitation Protocol – **Subacromial Decompression**

##### Phase 1 (Weeks 0-3):

**Goals:** Minimize effusion, Decrease shoulder pain, Full shoulder range of motion , discontinue sling when comfortable

**Treatment plan:**

- 1) Active assisted ROM, and passive stretching
- 2) Swelling control with ice, modalities
- 3) Scapulothoracic strengthening
- 4) Active elbow, wrist and hand exercises

##### Phase 2 (Weeks 3-6):

**Goals:** Full shoulder ROM, progressive strengthening, sport or work specific training

**Treatment plan:**

- 1) Continue with swelling and pain control
- 2) Rotator cuff strengthening program with theraband, progress to light weights
- 3) Rotator cuff/ shoulder PRE
- 4) Aerobic / sport or work specific training



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#### Post-op Rehabilitation Protocol –**Rotator Cuff Repair**

##### Phase 1 (Weeks 0-3):

**Goals:** Minimize effusion, Decrease shoulder pain, utilize sling, and participate in home exercise program

**Treatment plan:**

- 1) Swelling control with ice
- 2) Maintain arm in sling to encourage healing
- 3) Elbow and Wrist motion
- 4) Participate in exercises in back of packet

##### Phase 2 (Weeks 3-8):

**Goals:** Initiate formal physical therapy, Full passive ROM, remove sling

**Treatment plan:**

- 1) swelling and pain control
- 2) Progressive Passive to active assisted range of motion activities
- 3) Scapulothoracic range of motion and strengthening
- 4) Wrist and elbow range of motion and strengthening

##### Phase 3 (Weeks 8-12):

**Goals:** Full active range of motion, rotator cuff and shoulder PRE (do not increase inflammation or overwork cuff musculature), aerobic training,

**Treatment plan:**

- 1) swelling and pain control
- 2) Progressive active range of motion strengthening exercises
- 3) Scapulothoracic strengthening exercises

##### Phase 4 (Weeks 12-24):

**Goals:** Home exercise program, rotator cuff and shoulder PRE, aerobic training