TRAUMA & FRACTURE CARE
TOTAL JOINT REPLACEMENT

SPORTS MEDICINE & ARTHROSCOPIC
RECONSTRUCTIVE KNEE &
SHOULDER SURGERY

THE RYU HURVITZ ORTHOPAEDIC CLINC

2936 DE LA VINA STREET 1ST FLOOR
SANTA BARBARA, CA 93105
TELEPHONE (805) 963-2729
FAX (905) 963-3818

Rotator Cuff Disease/Impingement

(Adapted from Southern California Orthopedic Institute)

1. What is the rotator cuff in the shoulder?
2. What is impingement syndrome?
3. How does impingement syndrome relate to rotator cuff disease?
4. Why do some people develop impingement and rotator cuff disease when others do not?
5. Other than impingement, what else can cause rotator cuff damage?
6. What kind of symptoms does a patient have when the rotator cuff is injured?
7. How is the diagnosis of rotator cuff disease proven?
8. What is the initial treatment for rotator cuff disease and impingement?
9. What is the second line of treatment if the rotator cuff pain and weakness persist?
10. If the rotator cuff is already torn, what are the options?
11. How is a major injury to the rotator tendon repaired surgically?
12. Some postoperative instructions

---

1. What is the rotator cuff?

The rotator cuff is a common tendon comprised of four flat tendons which fuse together and surround the front, back and top of the shoulder joint, like the cuff on a shirt sleeve. These tendons are connected to very important muscles that originate from the shoulder blade. When the muscles contract, they pull on the rotator cuff tendon, causing the shoulder to **rotate** upward, inward, or outward, hence the name ”rotator cuff”.

2. What is impingement syndrome?

The uppermost tendon of the rotator cuff, the **supraspinatus tendon**, passes beneath the bone on the top of the shoulder, called the **acromion**. In some people, the space beneath the acromion is **narrow.** The rotator cuff tendon can therefore be pinched when the arm is raised into a forward position. With repetitive impingement, the tendons and bursa can become **infamed and swollen** and cause the painful situation known as "**chronic impingement syndrome".**

3. How does impingement syndrome relate to rotator cuff disease?

When the rotator cuff tendon becomes inflamed and swollen with impingement syndrome, the tendon may begin to **tear near its attachment on the humerus bone.** With continued impingement, the tendon is progressively damaged and finally may **tear completely away** from the bone.

4. Why do some people develop impingement and rotator cuff disease when others do not?

There are many factors that may predispose one person to impingement and rotator cuff problems. The most common is the **shape and thickness of the acromion** (the bone forming the roof of the shoulder). If the acromion has a **bone spur** on the front edge, it is more likely to impinge on the rotator cuff when the arm is **elevated.** Activities which involve forward elevation of the arm may put an individual at higher risk for rotator cuff injury.

5. Other than impingement, what else can cause rotator cuff damage?

In young athletic individuals, injury to the rotator cuff can occur with **repetitive throwing, overhead racquet sports or swimming.** This type of injury results from repetitive stretching of the rotator cuff during the follow-through phase of the activity. The tear that occurs is not caused by impingement, but more by a **joint imbalance**. This may be associated with looseness in the front of the shoulder caused by weakness in the supporting ligaments.

6. What kind of symptoms does a patient have when the rotator cuff is injured?

The most common complaint is **aching** located in the **top and front** of the shoulder, or on the **outer side of the upper arm** (deltoid area). The pain is usually increased when the arm is lifted above the shoulder. Frequently the pain seems to be **worse at night** and often interrupts sleep. Depending on the severity of the injury, there may also be weakness in the arm.

7. **How is the diagnosis of rotator cuff disease proven?**

   The diagnosis of rotator cuff tendon disease included a careful **history**, taken and reviewed by the physician, an **x-ray** to visualize the anatomy of the bones of the shoulder, specifically looking for acromial spur, and a **physical examination**. An MRI (magnetic resonance imaging) scan frequently gives the final proof of the status of the rotator cuff tendon.

8. **What is the initial treatment for rotator cuff disease and impingement?**

   If minor impingement or rotator cuff tendinitis is diagnosed, a period of **rest, coupled with medicines** taken by mouth and **physical therapy** can decrease the inflammation and restore the tone of the atrophied muscle. Activities causing the pain should be slowly resumed only when the pain is gone. Sometimes a **cortisone injection** into the space above the rotator cuff is helpful by relieving inflammation.

9. **What is the next treatment, if the rotator cuff pain and weakness persist?**

   If there is a **thickened acromion or acromial bone spur** causing impingement, it can be removed with a burr arthroscopically. This procedure (microsurgery) is performed on an **outpatient** basis and at the same time any minor damage and fraying to the rotator cuff tendon can be treated.

10. **If the rotator cuff is already torn, what are the options?**

    When the tendon of the rotator cuff has a complete tear, the tendon often must be repaired using **arthroscopic surgical techniques**. The choice of surgical technique depends on the severity of the symptoms, the health of the patient, and the functional requirements for that shoulder and the size of the tear. In young working individuals, repair of the tendon is recommended. In some older individuals who do not require significant overhead lifting ability, surgical repair may not be as important. If chronic pain and disability are present at any age, consideration for repair of the rotator cuff should be given.

11. **How is my shoulder treated after surgery?**

    In a minor operation for impingement, the shoulder is placed in a **sling**. If a full thickness tear of the rotator cuff is present and repaired, then the shoulder is immobilized for 5 to 6 weeks. Depending on the type of surgery performed, the program will allow a period of time for healing of the soft tissues, followed by time to regain **range of motion** and then strengthen the shoulder muscles, but particularly the rotator cuff. In **minor** tendinitis and impingement syndrome, with an intact rotator cuff, the program may take 8 to 12 weeks. If the rotator cuff tendon has been completely torn and has been repaired, it may take **six months** or more before the atrophied muscles can resume their function and the range of motion of the arm is restored.

12. Some postoperative instructions:
    a. Sleeping in a reclining chair or a semi-sitting position is helpful for the first few days/weeks. Difficulty sleeping is very common for several weeks.
    b. Eat first before taking pain medication.
    c. Dr. Ryu will see you at 24 hours following surgery to change your dressings and to instruct you on showering, getting dressed and starting physical therapy and other functional activities.
    d. All pain medicines are constipating.
    e. You can take a walk, ride a stationary bike or the elliptical as soon as you are comfortable. No pounding or bouncing activities are allowed.