

Shoulder Debridement and Biceps Tenodesis: Post-surgical Recovery Process, Expectations, and Timelines

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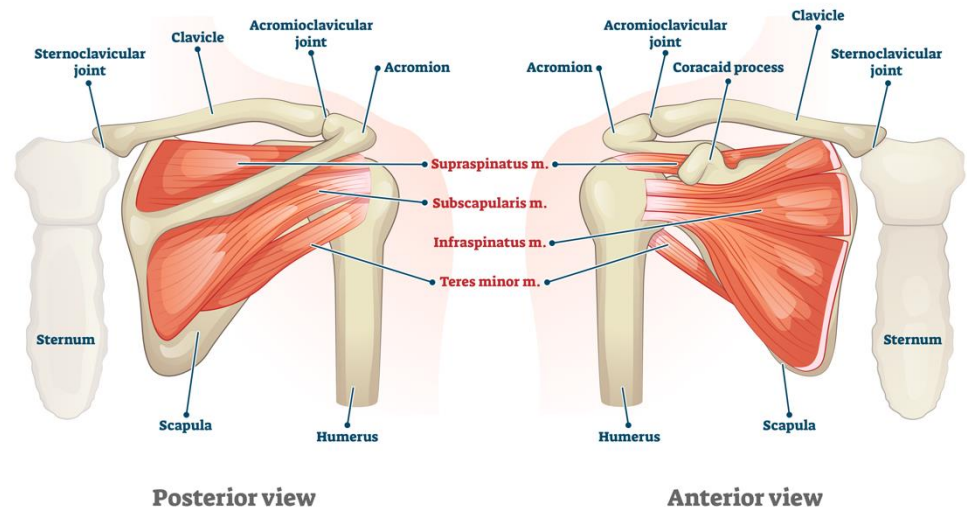
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What is the Rotator Cuff?

- **Group of 4 muscles that surround the shoulder joint**
 - Front: Subscapularis
 - Top: Supraspinatus (most commonly torn)
 - Back: Infraspinatus, Teres minor
- **What does it do?**
 - Stabilizes the ball-and-socket joint
 - Helps to lift and rotate the arm



What is Rotator Cuff Impingement?

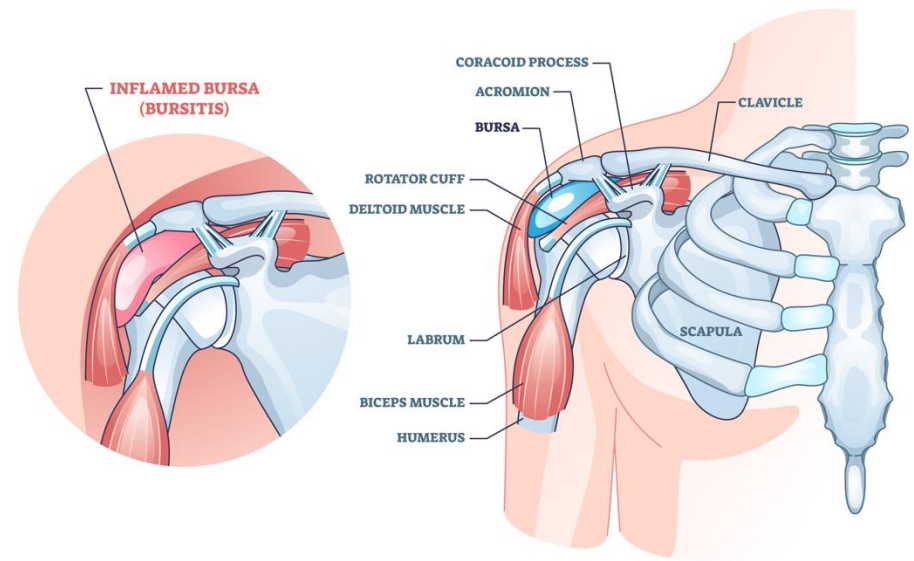
- **Repetitive wear of rotator cuff tendon**
 - Mechanical rubbing of tendon on shoulder blade (acromion bone)
 - Degenerative process of tendon
 - Aging
 - Genetics
 - Normal wear-and-tear
- **What are the common symptoms?**
 - Activity-related pain
 - Overhead activities
 - Repetitive lifting
 - Night pain (when laying on affected side)
 - Constant night pain may suggest a rotator cuff tear



(Left) Normal outlet view X-ray. (Right) Abnormal outlet view showing a large bone spur causing impingement on the rotator cuff.

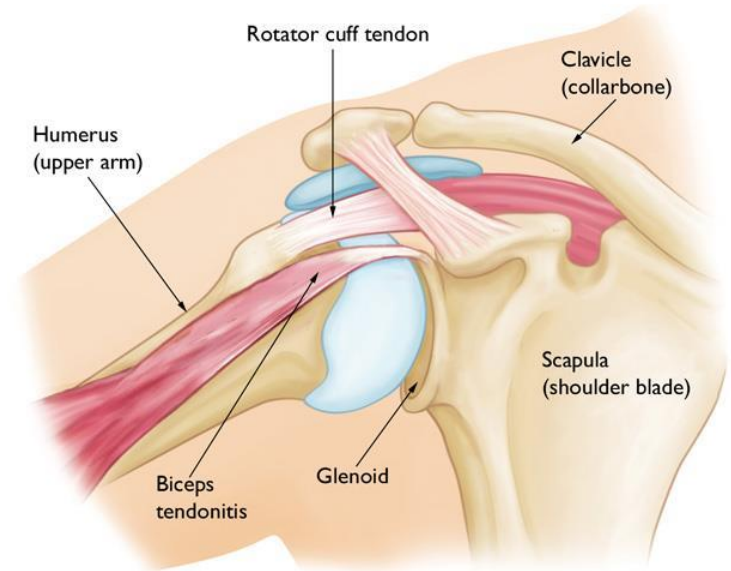
Indications for Surgery

- Activity-limiting pain
- Failure of non-surgical treatment
 - **Physical Therapy**
 - Most important
 - Minimum 6-week course before surgery considered
 - Oral anti-inflammatory medication (i.e. Aleve)
 - Steroid injections (Cortisone)
 - Avoid repetitive injections due to adverse effects on tendons



What about the biceps tendon?

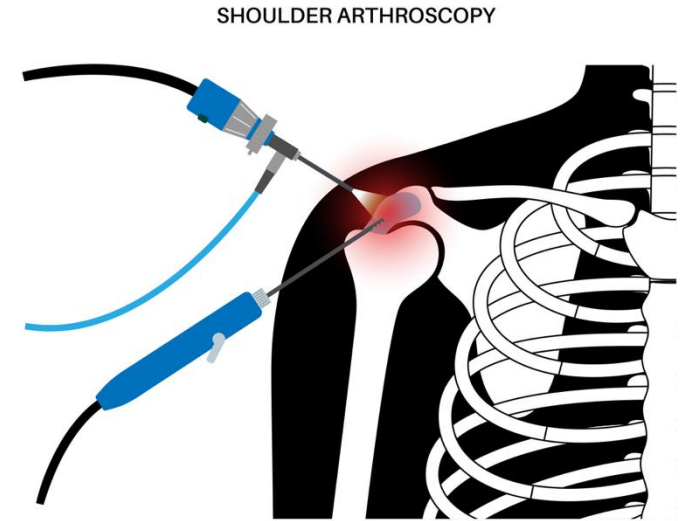
- What is the biceps tendon?
 - Strong, cordlike structure which connects the biceps muscle (upper arm) to top of shoulder socket
- When does it need to be treated?
 - Severe inflammation or enlargement
 - Torn
 - Unstable
- How can it be treated?
 - *Tenotomy* (cut and left alone)
 - *Tenodesis* (cut and reattached to humerus bone)
 - *Transfer* (left attached and moved to augment/reinforce rotator cuff repair)



Biceps tendonitis, or inflammation of the long head of the biceps, is a common source of pain in patients with rotator cuff impingement

How is Surgery Performed?

- Arthroscopic (minimally invasive)
- 2-3 small (< ½”) incisions surrounding the shoulder
- Open biceps tenodesis (*if performed*):
 - 1” incision on inside of arm near armpit
- 1 hour outpatient procedure
 - General anesthesia (asleep), nerve block for pain relief on day of surgery
 - Bone spurs and bursitis/inflammation removed
 - Biceps may be cut and reattached to humerus with metal button (tenodesis)



Arthroscopic (camera) image during surgery demonstrating tearing of biceps tendon

Expectations for Day of Surgery

Day of Surgery: At Surgery Center

- Will arrive to surgery center approximately 2 hours prior to surgery
 - Surgery center will call with specific time day before surgery
- Nothing to eat or drink after midnight
- Shower with Hibiclens night before and morning of surgery
- Time at surgery center:
 - **Before surgery:** Check in, paperwork, IV placement, meet anesthesia team, nerve block (1-2 hours)
 - **Surgery:** Roll back to operating room, go to sleep, surgery performed, wake up (2 hours)
 - **After surgery:** Roll to recovery room. Pain will be controlled. Water and crackers administered. Roll to car for family member/friend to take you home.



Day of Surgery: Home

- Ice frequently
 - 15 mins on and 15 mins off
 - Recommend ice machine (purchase on Amazon)
- Sling at all times
- Limit time on feet
- Light diet on day of surgery - avoid heavy/greasy foods
- Limit narcotic use – do not “stay ahead” of the pain
- Nerve block typically wears off 18-22 hours after administered
 - *Pain will increase, and you may require pain medication*



Day after Surgery: Home

- Continue to ice with ice machine
- Resume your regular diet
- Remove sling at least three times daily to maintain elbow range of motion
 - If biceps tenodesis/transfer performed, use nonsurgical arm to help bend elbow (*see picture to right*)
 - Make sure to fully straighten elbow
- May shower the day after surgery
 - Leave waterproof dressings in place until follow-up visit
 - Place Saran wrap/food cling over dressings and discard after shower



Wound Care

- Be very careful in shower
 - Most dangerous place after surgery
 - Sling will be off, and it is slippery
 - Keep waterproof dressings covered with Saran wrap/food cling until 2-week visit
- Glued on tan bandages (Episeal) will fall off
 - No need to keep wounds covered while showering after 2-week visit
 - Allow Episeal to fall off on its own
 - All stitches are dissolvable



Leave the waterproof bandages in place until 2-week follow-up visit, if possible



Tan bandages (Episeal) will fall off within 3-4 weeks of surgery

Home Exercises:

Start prior to outpatient Physical Therapy. May start these exercises the day after surgery.

Should perform at least 3 times daily, with no limit

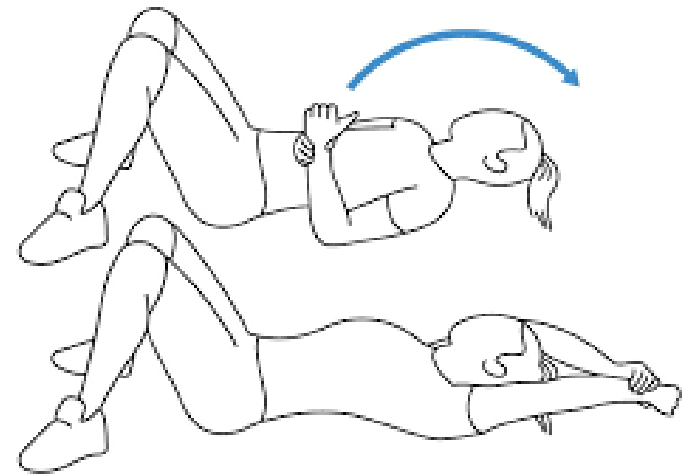
Pendulum Exercise (“Stirring the pot”)

- Remove sling
- Lean over with unaffected hand on table or counter
- Use your hips and legs to gently swing your surgical shoulder in small circles like a pendulum
- Start with small circles and slowly enlarge over time



Supine (lying down) Active Assist Forward Flexion

- Remove sling
- Must be performed lying down
- Use unaffected hand to grasp the wrist of the affected side
- Use the unaffected hand to pull the affected arm overhead
 - Stop when a mildly uncomfortable stretch is achieved
 - This should not be painful
 - Expect slow progress each day



Outpatient Physical Therapy
Start as early as 2 days after Surgery

Outpatient Physical Therapy

Make sure to call ahead, as they often book out weeks in advance

Goals of Physical Therapy

1. Control pain
2. Regain full range of motion
3. Strengthen rotator cuff and surrounding muscles
4. Return to desired activity level

Please discuss goals with Physical Therapist

1. Specific job demands (i.e. manual labor job)
2. Fitness goals
3. Return to sport (competitive/recreational)

Expectations: Symptoms

Time after Surgery	0-2 weeks	2-6 weeks	6 wks-3 months	3-6 months	6 mos - 1 year
Difficulty sleeping					
Pain at rest					
Pain with shoulder activity				Tapers off	
Shoulder stiffness				Tapers off	
Weakness				Strength restored	
Pain medication needed		Tapers off	NSAIDs/Tylenol only	Minimal	None

Note: Recovery timelines are general expectations and vary from person to person based on a variety of factors including severity of disease, baseline strength and activity level, compliance with postoperative instructions including home exercises and physical therapy, and other health factors.

Expectations: Function

Activity	Immediately	2-6 weeks	6-12 weeks	3-4 months	4-6 months	6+ months
Texting and typing						
Driving						
Desk work (with sling*)		*				
Sleeping in recliner/upright						
Sleeping in bed						
Lifting 1-5 pounds at/above shoulder height						
Lifting 10+ pounds at/above shoulder height						
Basic housework (cleaning)						
Reaching a high shelf						
Light manual labor						
Heavy manual labor						
Sports						

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Additional Considerations

- **Females over 50 years old:** Take 5000 IU Vitamin D (over the counter) once daily for one month unless already taking **prescription** Vitamin D or bone density medication (i.e. bisphosphonate, Forteo)
- **Maximal improvement is not until 6-12 months after surgery**
 - Expect steady improvement until 6 months postoperative
 - Slower improvement from 6-12 months



Questions?

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