

## SLAP LESIONS



### ■ ■ ■ Description

The socket of the shoulder (glenoid) has a cartilage rim that lines the periphery of the glenoid, called the labrum. The labrum serves as the attachment site of the shoulder capsule, the ligaments, and the long head of the biceps tendon to the glenoid (one of the two upper biceps tendon attachments). The upper cartilage rim (superior labrum) is where the biceps tendon attaches. Injury to the superior labrum is called a SLAP lesion, which stands for Superior Labrum, Anterior to Posterior (front to back). This injury may be degeneration, a tear of the labrum, or a pulling of the labrum off the glenoid, with or without the biceps tendon attachment being pulled off or torn. This is an uncommon source of shoulder pain. The labrum is important in shoulder stability.

### ■ ■ ■ Common Signs and Symptoms

- Pain in the shoulder, worse with overhead activities and especially with follow through (after ball release)
- Usually no pain at rest
- Intermittent locking, clicking, or snapping of the shoulder, often associated with pain
- Weakness reaching overhead
- Loss of velocity when trying to throw
- Feeling of the shoulder wanting to dislocate
- Pain, tenderness, and weakness in the front of the shoulder, with attempted elbow bending or rotation of the wrist, such as with using a screwdriver
- Crepitation (a crackling sound) when the biceps tendon or shoulder is moved or touched

### ■ ■ ■ Causes

- Repetitive throwing motion
- Falling onto the outstretched arm
- Pulling of the arm
- Sudden force applied to the biceps while contracted
- Direct blow to the shoulder with the arm in a throwing position

### ■ ■ ■ Risk Increases With

- Contact sports
- Overhead sports (baseball, tennis, and volleyball)
- History of shoulder dislocation or subluxation
- Rotator cuff tear
- Poor physical conditioning (strength and flexibility)
- Inadequate warm-up before practice or play

### ■ ■ ■ Preventive Measures

- Appropriately warm up and stretch before practice or competition.

- Maintain appropriate conditioning:
  - Shoulder and elbow flexibility
  - Muscle strength and endurance
  - Cardiovascular fitness
- Use proper technique when throwing and falling.

### ■ ■ ■ Expected Outcome

Symptoms may resolve with conservative treatment and resting of the affected area. Often surgery is necessary.

### ■ ■ ■ Possible Complications

- Prolonged healing time if not appropriately treated or if not given adequate time to heal
- Recurrence of symptoms, especially if activity is resumed too soon
- Weakness of elbow bending and forearm rotation
- Prolonged disability (uncommon)
- Risks of surgery, including infection, bleeding, injury to nerves, shoulder stiffness, shoulder and elbow weakness, inability to repair the labral tear, retearing of the labral when repaired, and rupture of the biceps tendon

### ■ ■ ■ General Treatment Considerations

Initial treatment consists of medication and ice to relieve the pain, stretching and strengthening exercises, and modification of the activity that initially caused the problem. These all can be carried out at home, although referral to a physical therapist or athletic trainer may be recommended. Often pain will persist, especially in throwers. Surgery is recommended if symptoms persist despite nonoperative treatment. Surgery is performed arthroscopically to débride (clean and remove torn pieces and fragments) or to reattach the labrum back to the glenoid. Reattachment may be performed with tacks or sutures (thread). If repair is undertaken, immobilization is usually recommended after surgery to allow the labrum to heal to the glenoid. After surgery and immobilization, physical therapy may be recommended to regain shoulder motion and strength.

### ■ ■ ■ Medication

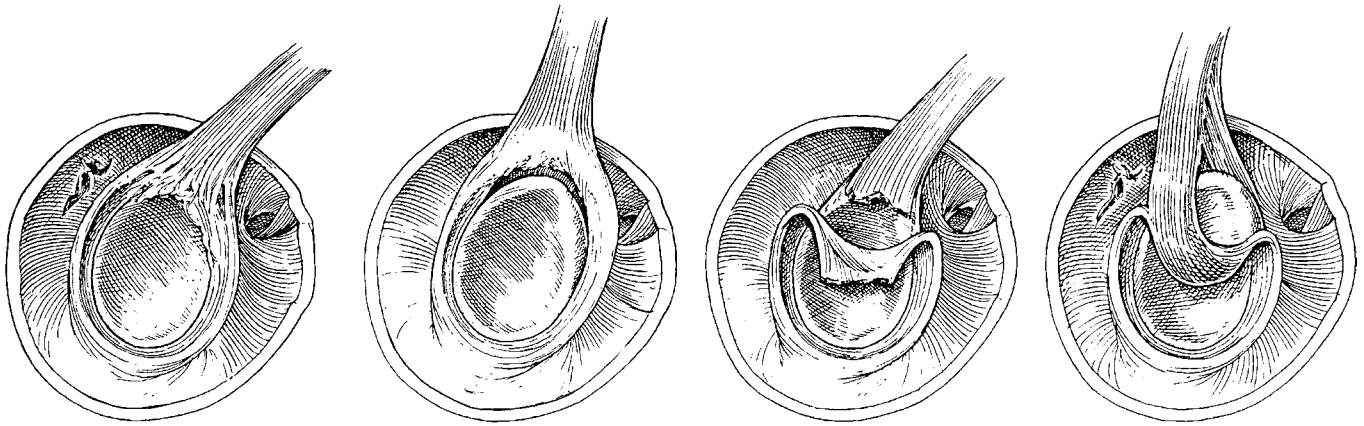
- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within 7 days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- Pain relievers may be prescribed as necessary by your physician, often only after surgery. Use only as directed.

### ■ ■ ■ Heat and Cold

- Cold is used to relieve pain and reduce inflammation. Cold should be applied for 10 to 15 minutes every 2 to 3 hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage.
- Heat may be used before performing stretching and strengthening activities prescribed by your physician, physical therapist, or athletic trainer. Use a heat pack or a warm soak.

### ■ ■ ■ Notify Our Office If

- Symptoms get worse or do not improve in 4 to 6 weeks despite treatment
- Any of the following occur after surgery:
  - Increased pain, swelling, redness, drainage, or bleeding in the surgical area
  - Pain, numbness, or coldness in the hand
  - Blue, gray, or dusky color in the fingernails
  - Signs of infection (headache, muscle aches, dizziness, or a general ill feeling with fever)
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)



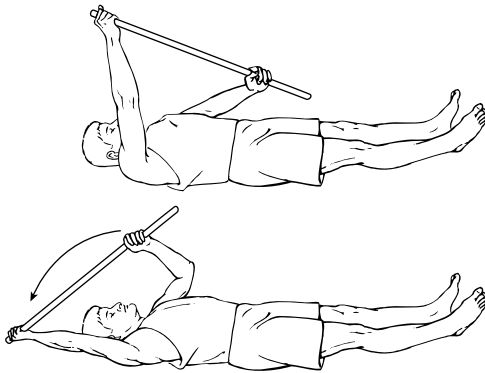
**Figure 1**

From Rockwood CA Jr., Matsen FA III: *The Shoulder*, 2nd ed. Philadelphia, WB Saunders, 1998, p. 302; from Snyder SJ, Karzel RP, Del Pizzo W, et al: SLAP lesions of the shoulder. *Arthroscopy* 6:274, 1990.

➤ **RANGE OF MOTION AND STRETCHING EXERCISES • SLAP Lesions**

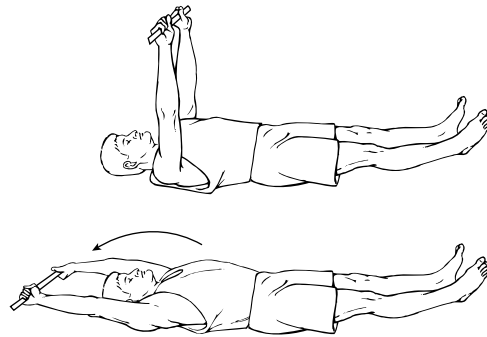
These are some of the *initial* exercises you may start your rehabilitation program with until you see your physician, physical therapist, or athletic trainer again or until your symptoms are resolved. Please remember:

- Flexible tissue is more tolerant of the stresses placed on it during activities.
- Each stretch should be held for 20 to 30 seconds.
- A *gentle* stretching sensation should be felt.



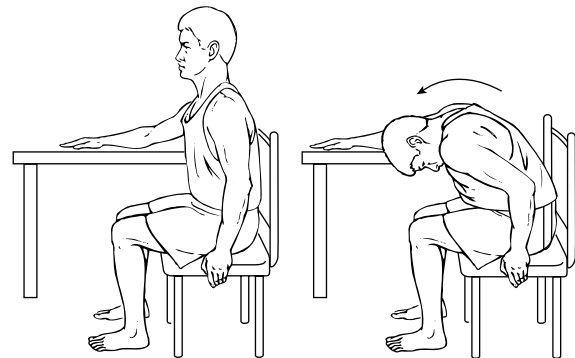
**SHOULDER • Flexion**

1. Lie on your back. Grasp the bottom of a stick, handle of an umbrella, or blade of a golf club in your \_\_\_\_\_ hand as shown.
2. Using the stick, raise your arm overhead as shown until you feel a gentle stretch. Lead with the thumb in a “thumbs up” position.
3. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day. Hold each repetition 5 to 10 seconds



**SHOULDER • Flexion**

1. Lie on your back holding a stick in both hands, keeping your hands shoulder-width apart.
2. Raise both hands over your head until you feel a gentle stretch.
3. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day. Hold each repetition 5 to 10 seconds.



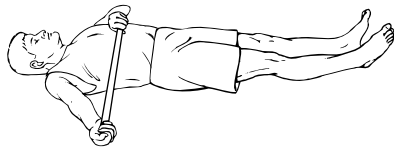
**SHOULDER • Flexion**

1. Sit in a chair with your \_\_\_\_\_ arm on a table as shown.
2. Lean forward, sliding your arm forward on the table until you feel a gentle stretch.
3. Return to the starting position.
4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day. Hold each repetition 5 to 10 seconds



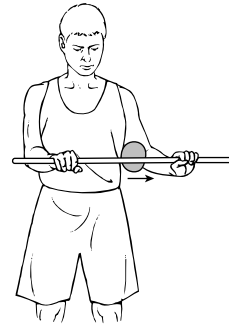
**SHOULDER • Flexion**

1. While standing near a wall as shown, slowly “walk” your fingers up the wall until you feel a gentle stretch.
2. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day. Hold each repetition 5 to 10 seconds.



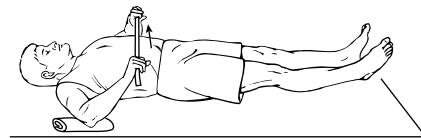
**SHOULDER • Abduction**

1. Lie on your back holding a stick, umbrella handle, or golf club in your hand as shown. The hand should be in the “thumbs up” position.
2. Using the stick, slowly push your arm away from your side and as far overhead as you can without pain. Push until you feel a gentle stretch.
3. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day. Hold each repetition 5 to 10 seconds.



**SHOULDER • External Rotation**

1. Lie on your back or stand with your \_\_\_\_\_ arm at your side and your elbow bent to 90 degrees. Hold a stick, umbrella handle, or golf club in your hands as shown.
2. Using the stick turn/rotate your hand and forearm away from your body as shown.
3. ***Make sure you keep your upper arm and elbow next to your side.***
4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day. Hold each repetition 5 to 10 seconds.



**SHOULDER • Internal Rotation**

1. Lie on your back with your \_\_\_\_\_ arm out away from your body about 60 degrees and a rolled-up towel placed under your elbow as shown.
2. Turn/rotate your arm inward toward your body from the shoulder.
3. To assist in this stretch you may use a rope or towel to gently pull the arm farther inward as shown.
4. Make sure to keep your shoulders flat on the floor/bed on which you are lying.

### > STRENGTHENING EXERCISES • SLAP Lesions

These are some of the *initial* exercises you may start your rehabilitation program with until you see your physician, physical therapist, or athletic trainer again or until your symptoms are resolved. Please remember:

- Strong muscles with good endurance tolerate stress better.
- Do the exercises as *initially* prescribed by your physician, physical therapist, or athletic trainer. Progress slowly with each exercise, gradually increasing the number of repetitions and weight used under their guidance.



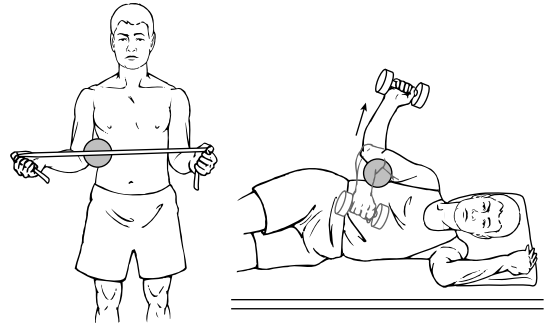
#### STRENGTH • Shoulder Abduction, Isometric

1. While standing, raise the \_\_\_\_\_ arm slightly away from the body as shown.
2. Place the other hand on top of your arm and push down. Do not allow your arm to move. Push as hard as you can without having any pain or moving the arm.
3. Hold this position for \_\_\_\_\_ seconds and then *slowly* return to the starting position.
4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day



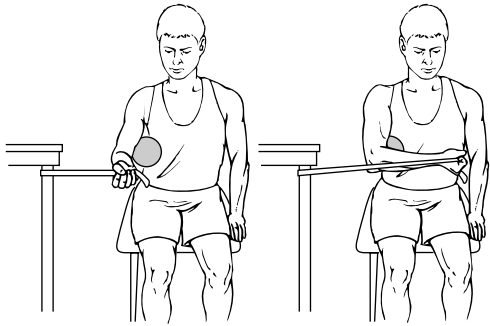
#### STRENGTH • Shoulder, External Rotation, Isometric

1. Bend your \_\_\_\_\_ elbow to 90 degrees as shown, holding your arm slightly in front of your body.
2. Place your opposite hand over your wrist as shown.
3. Try to turn/rotate your arm outward, away from your body, as if it were a gate swinging open. Resist this motion with the opposite hand that is on your wrist. Do not let any motion occur.
4. Hold this position for \_\_\_\_\_ seconds.
5. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day



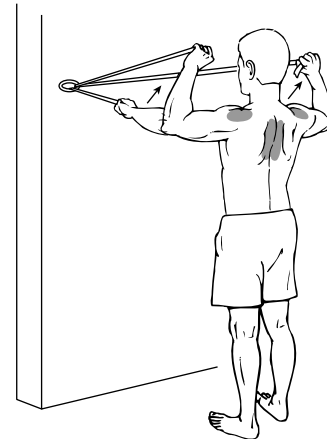
#### STRENGTH • Shoulder External Rotation

1. Lie on your side with your \_\_\_\_\_ arm up and the elbow bent to 90 degrees, or stand with your arms at your side and the elbows bent to 90 degrees as shown. Place a small rubber ball (4 to 6 inches in diameter) or rolled-up towel between your elbow and your side as shown.
2. Hold a \_\_\_\_\_ pound weight in your hand and turn the arm up toward the ceiling, keeping the elbow bent as shown. If using rubber band/tubing, turn the arm(s) out from your side while keeping the elbows bent.
3. Do this slowly and in control through your *pain free* range of motion only. If this is painful, stop and discuss this with your physician, physical therapist, or athletic trainer.
4. Hold this position for \_\_\_\_\_ seconds and then *slowly* return to the starting position.
5. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.



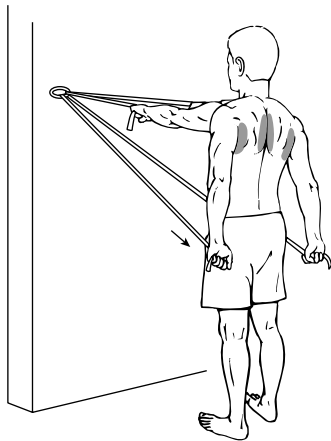
**SHOULDER • Internal Rotation**

1. Anchor the rubber band/tubing to a heavy/solid object as shown.
2. Place a small ball or towel between your elbow and body as shown in the drawing and bend your elbow to 90 degrees. Squeeze the ball gently to the side of your chest with your elbow.
3. Turn/rotate your arm in toward your body (across your chest/stomach). Do not let the ball move/fall away from the side of your chest.
4. Hold this position for \_\_\_\_ seconds and then *slowly* return to the starting position.
5. Repeat exercise \_\_\_\_ times, \_\_\_\_ times per day.



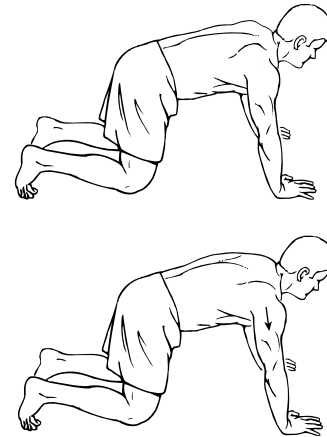
**STRENGTH • Shoulder, External Rotation/Rowing**

1. Anchor/secure rubber band/tubing around a stable object such as a stair post or around the knob of a closed door.
2. Stand holding the rubber band/tubing in front of you with your arms extended as shown.
3. Squeeze/pinch your shoulder blades together and pull your arms back as shown, bending your elbows. Your fists should end at shoulder height and close to your body.
4. Hold this position for \_\_\_\_ seconds and then *slowly* return to the starting position.
5. Repeat exercise \_\_\_\_ times, \_\_\_\_ times per day.



**STRENGTH • Shoulder Extension**

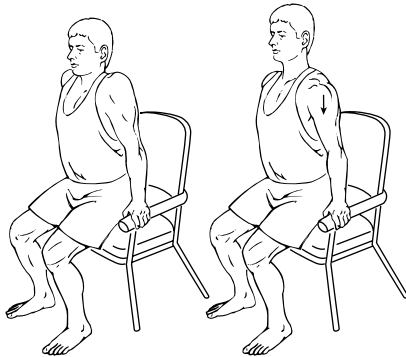
1. Anchor/secure rubber band/tubing around a stable object such as a stair post or around the knob of a closed door.
2. Stand holding the rubber band/tubing in front of you with your arms extended as shown.
3. Squeeze/pinch your shoulder blades together and pull your arms down and backward as shown. **Do not pull arms past the midline of your body.**
4. Hold this position for \_\_\_\_ seconds and then *slowly* return to the starting position.
5. Repeat exercise \_\_\_\_ times, \_\_\_\_ times per day.



**SHOULDER • Scapular Protraction**

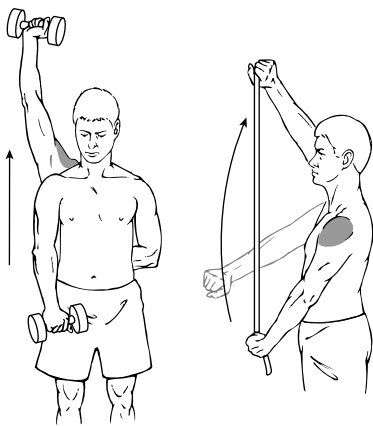
1. Position yourself on your hands and knees as shown.
2. Keep your elbows straight and push down with your hands, raising the back of your shoulders up as shown in the drawing.
3. Hold this position for \_\_\_\_ seconds and then *slowly* return to the starting position.
4. Repeat exercise \_\_\_\_ times, \_\_\_\_ times per day.

**This exercise may be made harder by assuming a push-up position. Before trying this check with your physician, physical therapist, or athletic trainer.**



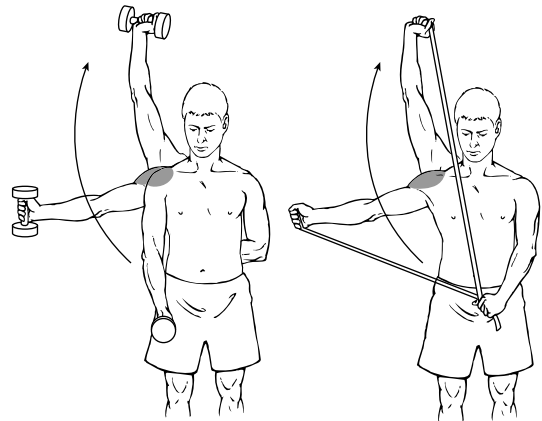
### SHOULDER • Depression

1. Support yourself as shown in an armchair. Your elbows should be straight and your feet flat on the floor.
2. Push your shoulders downward. **Do not bend your elbows.**
3. Support your weight as needed by using your legs.
4. Hold this position for \_\_\_\_\_ seconds and then *slowly* return to the starting position.
5. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.



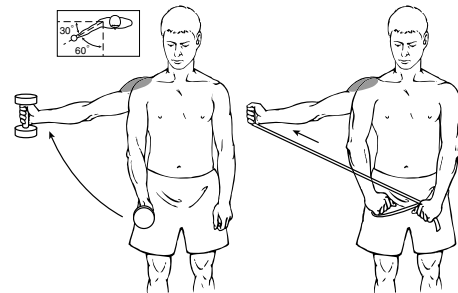
### STRENGTH • Shoulder Flexion

1. Stand holding a \_\_\_\_\_ pound weight in your \_\_\_\_\_ hand as shown, or hold the rubber band/tubing as shown.
2. Slowly raise your arm overhead as far as you can in your *pain free* range of motion. Do not allow your shoulder to “shrug up” while doing this exercise.
3. Keep your hand in a “thumbs-up” position
4. Hold this position for \_\_\_\_\_ seconds and then *slowly* return to the starting position.
5. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.



### STRENGTH • Shoulder Abduction

1. Stand holding a \_\_\_\_\_ pound weight in your \_\_\_\_\_ hand and your palm facing your body as shown, or hold the rubber band/tubing as shown.
2. Slowly raise the arm up to the side and as far overhead as you can in your *pain free* range. If this is painful, stop and discuss this with your physician, physical therapist, or athletic trainer. *You should not progress above shoulder height unless instructed to do so by your physician, physical therapist, or athletic trainer.* If you are cleared to go above shoulder height, as you raise the arm to shoulder height begin to turn the palm toward the ceiling.
3. *Slowly* return to the starting position.
4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.



### STRENGTH • Scaption, Thumb Up

1. Hold a \_\_\_\_\_ pound weight in your \_\_\_\_\_ hand with your arm at your side but slightly forward (approximately 30 degrees; see small diagram). This exercise may also be done with rubber band/tubing as shown.
2. Your hand should be in a “thumbs-up” position.
3. Slowly raise your arm in the “thumbs-up” position through your *pain free* range. If this is painful, stop and discuss this with your physician, physical therapist, or athletic trainer. Do not allow your shoulder to “shrug up” while doing this exercise.
4. Hold this position for \_\_\_\_\_ seconds and then *slowly* return to the starting position.
5. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.

Notes:

(Up to 4400 characters only)

Notes and suggestions