

# SHOULDER INSTABILITY, POSTERIOR



## ■ ■ ■ Description

Posterior shoulder instability is an injury to the shoulder joint, causing the upper arm (humerus) to be displaced from its normal position in the center of the socket (glenoid) and the joint surfaces to no longer touch each other. This uncommon dislocation is posterior, where the humerus is behind the glenoid. Because the shoulder has more motion than any other large joint in the body, it is the most commonly dislocated large joint. The shoulder is like a golf ball on a golf tee. A few of the many structures that provide shoulder stability include the cartilage rim (labrum), which helps provide depth to the socket; the capsule, with thickenings that are the ligaments of the shoulder; and the muscles of the rotator cuff, which surround the shoulder. To dislocate the shoulder, the rotator cuff muscles need to be stretched or torn, the capsule and ligaments need to be stretched, and often the labrum is pulled off the glenoid. Posterior subluxation of the shoulder is more common than dislocation, but both are much less common than anterior dislocation. Subluxation is when the ball of the humerus does not stay centered in the socket with shoulder motion and feels like it wants to slip out of place.

## ■ ■ ■ Common Signs and Symptoms

- Severe pain in the shoulder at the time of injury
- Loss of shoulder function and severe pain when attempting to move the shoulder
- Feeling like your shoulder wants to slip out of place
- Tenderness in the back of the shoulder, deformity (fullness in the back of the shoulder), and swelling
- Inability to turn arm outward
- Numbness or paralysis in the upper arm and deltoid muscle from pinching, stretching, or pressure on the blood vessels or nerves
- Decreased or absent pulse at the wrist because of blood vessel damage (rare)

## ■ ■ ■ Causes

- Direct blow to the shoulder or backward force on an outstretched arm (such as blocking in football)
- End result of a severe shoulder sprain
- Congenital abnormality (you are born with it), such as a shallow or malformed joint surface
- Powerful muscle twisting or violent muscle contraction (such as with an epileptic seizure or electrocution)

Some people can willfully produce a recurrent dislocation.

## ■ ■ ■ Risk Increases With

- Contact sports (football, wrestling, and basketball)
- Sports that require forceful lifting, hitting, or twisting, such as swimming, volleyball, and softball
- Previous shoulder dislocations or sprains

- Shoulder fracture
- Repeated shoulder injury of any kind
- Poor physical conditioning (strength and flexibility)

## ■ ■ ■ Preventive Measures

- Appropriately warm up and stretch before practice or competition.
- Maintain appropriate conditioning:
  - Cardiovascular fitness
  - Shoulder strength
  - Flexibility and endurance
- For contact sports, wear protective shoulder pads.
- Use proper technique.

## ■ ■ ■ Expected Outcome

With appropriate reduction (repositioning of the joint) and immobilization for 3 to 6 weeks, healing of ligaments can be expected in 6 weeks. Repeated shoulder dislocations depend on the amount of trauma necessary to cause the first dislocation, age at the time of injury, and associated shoulder injury (bony defect). Recurrent dislocation is less common than after anterior dislocation. If customary treatment does not prevent a recurrence, athletic activities should be modified until surgery can be performed to cure the problem. Nonoperative treatment is successful in 70% to 90% of patients.

## ■ ■ ■ Possible Complications

- Damage to nearby nerves or major blood vessels, causing temporary or permanent weakness, paralysis, numbness, coldness, and paleness
- Fracture or joint cartilage injury due to the dislocation or reduction of the dislocation
- Prolonged healing or recurrent dislocation if activity is resumed too soon
- Rotator cuff tear
- Repeated shoulder dislocations, particularly if the previous dislocation is not healed completely or appropriately rehabilitated; most recurrent dislocations are caused by repeated injury
- Unstable or arthritic shoulder following repeated injury or if there is associated fracture

## ■ ■ ■ General Treatment Considerations

After reduction (repositioning of the bones of the joint) by trained medical personnel, treatment consists of ice and medications to relieve pain. Reduction usually can be performed without surgery; surgery may rarely be necessary to restore the joint to its normal position, as well as to repair ligaments. Immobilization by brace, cast, or immobilizer for 6 to 8 weeks is recommended to protect the joint while the ligaments heal. After immobilization, stretching and strengthening of the stiff, injured, and weakened joint and surrounding

muscles (due to the injury and the immobilization) are necessary. These may be done with or without the assistance of a physical therapist or athletic trainer. Nonoperative treatment provides relief in 70% to 90% of patients with posterior subluxation. Surgery is uncommonly recommended after the first dislocation to tighten the shoulder ligaments and repair the labrum. Surgery is usually reserved for those who have recurrent dislocations despite 6 months of appropriate rehabilitation. This can be done arthroscopically or through a standard incision. Surgery is not as successful as for anterior dislocations.

### ■ ■ ■ Medication

- General anesthesia or muscle relaxants may be used to help make the joint repositioning possible.
- 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.
- Strong pain relievers may be prescribed as necessary. Use only as directed and only as much as you need.

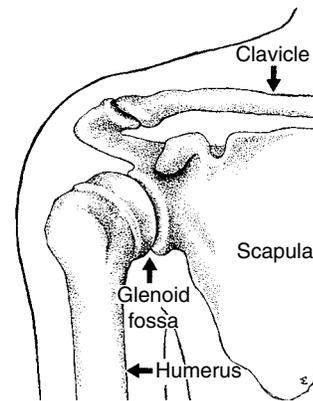
### ■ ■ ■ Cold Therapy

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 after injury and immediately after any

activity that aggravates your symptoms. Use ice packs or an ice massage.

### ■ ■ ■ Notify Our Office If

- Pain, tenderness, or swelling worsens despite treatment
- You have another dislocation
- You experience pain, numbness, or coldness in the arm
- Blue, gray, or dusky color appears in the fingernails
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)



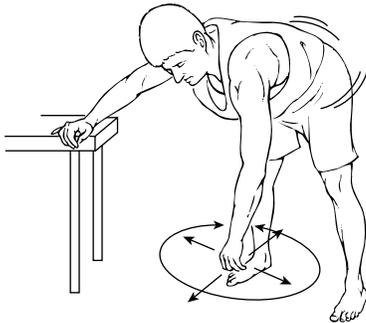
**Figure 1**

From Economou SG, Economou TS: *Instructions for Surgery Patients*. Philadelphia, WB Saunders, 1998, p. 551.

**> RANGE OF MOTION AND STRETCHING EXERCISES • Shoulder Instability, Posterior**

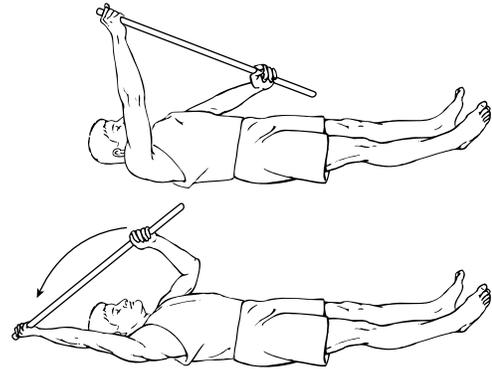
These are some of the *initial* exercises you may start your rehabilitation program with after your surgeon has stated that you may begin moving your shoulder. The period of time your shoulder is immobilized (often 2 to 6 weeks) will vary depending on the type and severity of injury. Continue these exercises as instructed until you see your physician, physical therapist, or athletic trainer again or until your symptoms are resolved. You should attempt to avoid motions that place your elbow all the way across the front of your body. 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.



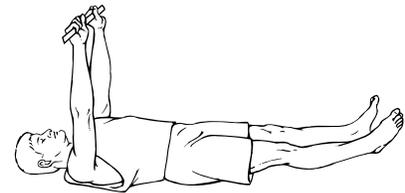
**SHOULDER • Pendulum**

1. Lean forward at the waist, letting your \_\_\_\_\_ arm hang freely. Support yourself by placing the opposite hand on a chair, table, or counter as shown.
2. Sway your *whole body* slowly forward and back. This will cause your arm to move. Let your arm hang freely. Do not tense it up.
3. Repeat the above swaying side to side and moving in circular patterns, clockwise and counterclockwise.
4. Do \_\_\_\_\_ repetitions in each direction.
5. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.



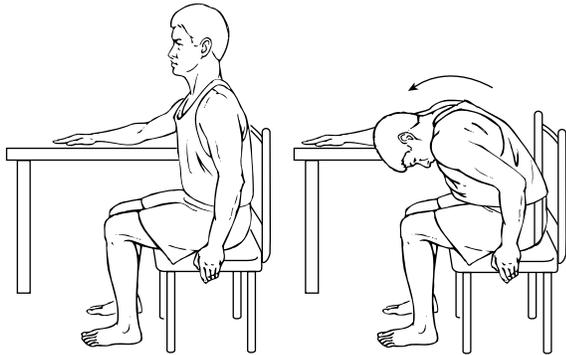
**SHOULDER • Flexion**

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.



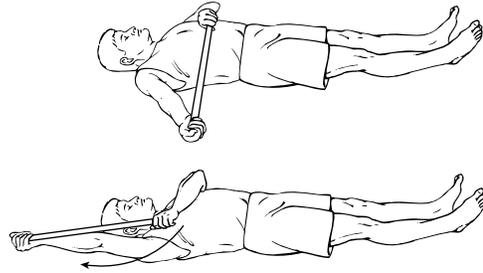
### SHOULDER • Flexion

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.



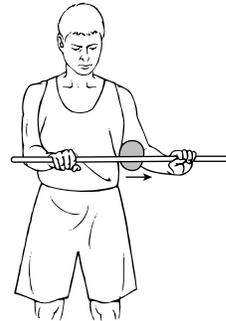
### SHOULDER • Flexion

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.



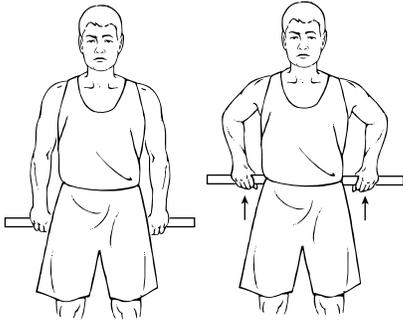
### SHOULDER • Abduction

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.



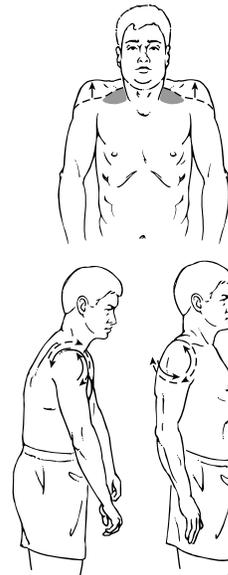
### SHOULDER • Internal Rotation

1. Grasp a stick behind your back with both hands as shown.
2. Slide the stick up your back until you feel a gentle stretch.
3. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day. Hold each repetition 5 to 10 seconds.

### > STRENGTHENING EXERCISES • Shoulder Instability, Posterior

These are some of the *initial* exercises you may start your rehabilitation program with after your surgeon has stated that you may begin moving your shoulder. The period of time your shoulder is immobilized will vary depending on the type and severity of injury. Initially, when performing these exercises you should not raise your arm above shoulder height unless specifically instructed to do so by your physician, physical therapist, or athletic trainer. Continue these exercises as instructed until you see your physician, physical therapist, or athletic trainer again or until your symptoms are resolved. You should attempt to avoid motions that place your elbow all the way across the front of your body. 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.



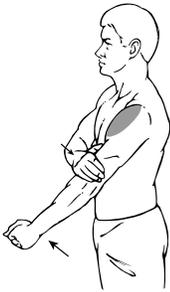
### SHOULDER • Scapular Elevation, Shrugs

1. Stand with your arms at your side in a *good erect posture*.
2. Subtly “shrug” your shoulders up and back toward your ears.
3. Hold this position for \_\_\_\_\_ seconds and then *slowly* return to the starting position.
4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.
5. You may perform this exercise with a \_\_\_\_\_ pound weight in each hand.
6. Avoid standing in a slouched position with poor posture by using this technique intermittently throughout the day.



### SHOULDER • Internal Rotation, Isometric

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



### STRENGTH • Shoulder Flexion, Isometric

1. While standing, raise your \_\_\_\_\_ arm straight in front of your 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.



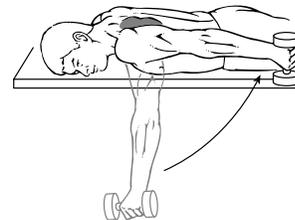
### STRENGTH • Shoulder Abduction, Isometric

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.



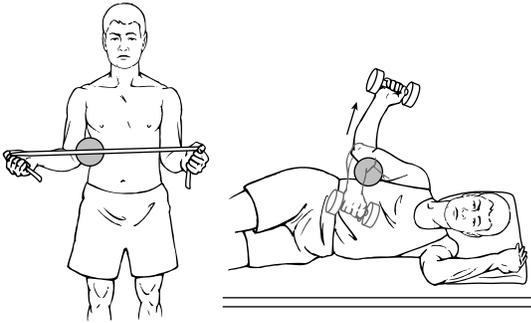
### STRENGTH • Shoulder, External Rotation, Isometric

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.



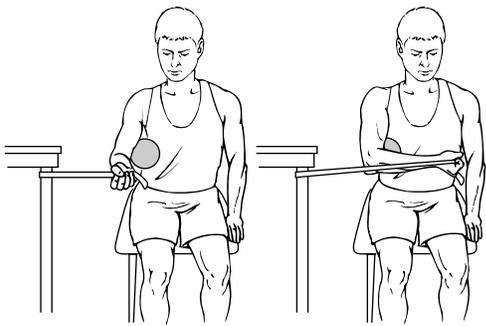
### STRENGTH • Shoulder Extension

1. Lie on your stomach with your \_\_\_\_\_ arm off the edge of the bed.
2. Holding a \_\_\_\_\_ pound weight in your hand, slowly raise the arm up and backward toward the ceiling.
3. Hold this position for \_\_\_\_\_ seconds and then *slowly* return to the starting position.
4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.



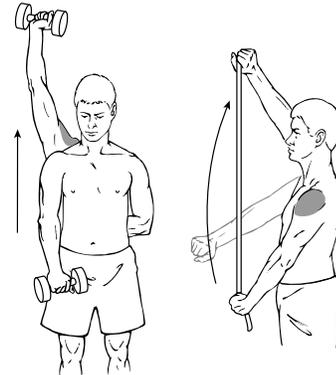
**STRENGTH • Shoulder External Rotation**

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.



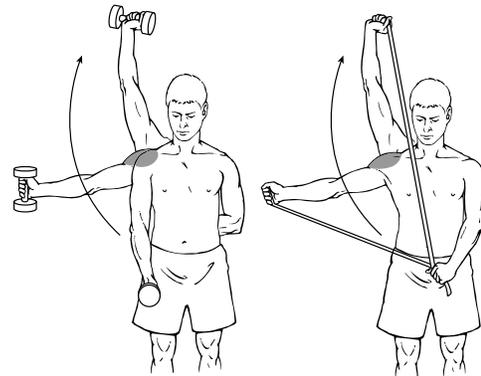
**SHOULDER • Internal Rotation**

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.



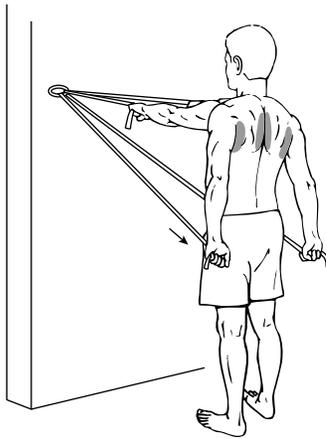
**STRENGTH • Shoulder Flexion**

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.



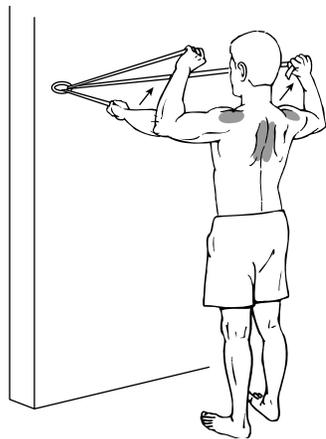
**STRENGTH • Shoulder Abduction**

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.



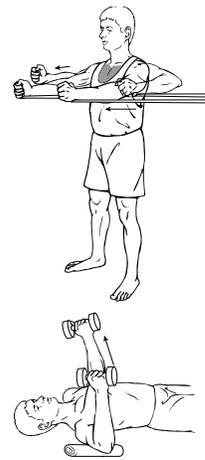
### STRENGTH • Shoulder Extension

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.



### 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.



### SHOULDER • Horizontal Adduction

1. **If using a weight**—Lie on your back with your \_\_\_\_\_ arm on the bed as shown, holding a \_\_\_\_\_ pound weight in your hand.
2. Raise your arm up slowly toward the ceiling, straightening out your elbow.
3. Hold this position for \_\_\_\_\_ seconds and then *slowly* return to the starting position.
4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.
1. **If using rubber band/tubing**—Anchor the rubber band/tubing to a solid object.
2. Hold one end of the band/tubing in each hand as shown with your elbows bent. Your elbows should be in line with your body, **not** behind your body.
3. Push your arms forward, straightening out your elbows. Keep your arms parallel to the floor.
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