

SHOULDER INSTABILITY, ANTERIOR



■ ■ ■ Description

Anterior shoulder instability is an injury to the shoulder joint so that the upper arm (humerus) is displaced from its normal position in the center of the socket (glenoid) and the joint surfaces no longer touch each other. The most common dislocation is anterior (more than 90%), where the humerus is in front and below 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. Subluxation of this joint is also common in sports; this 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. Subluxation of the shoulder causes overuse of the rotator cuff muscles trying to keep the shoulder in the center of the socket, resulting in rotator cuff symptoms. Further, fatigue of the rotator cuff muscles as the deltoid muscle contracts may push the humeral head up to the roof of the shoulder, pinching the subacromial bursa and supraspinatus tendon (part of the rotator cuff).

■ ■ ■ 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, deformity (fullness in the armpit and prominent roof of the shoulder), and swelling
- Pain with moving the shoulder, especially when reaching overhead; pain with heavy lifting; pain that awakens you at night
- Loss of strength
- Numbness or paralysis in the upper arm and deltoid muscle from pinching, stretching, or pressure on the blood vessels or nerves
- Crepitation (“crackling”) feeling and sound when the injured area is touched or with shoulder motion
- Decreased or absent pulse at the wrist because of blood vessel damage (rare)

■ ■ ■ Causes

- Direct blow to the shoulder or backward force on an extended arm or elbow
- Repetitive throwing motion or swimming
- 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

Some people can willfully produce a recurrent dislocation.

■ ■ ■ Risk Increases With

- Contact sports (football, wrestling, and basketball)
- Sports that involve repetitive overhead activity, such as baseball, volleyball, swimming
- Sports that require forceful lifting, hitting, or twisting
- 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 participation in contact sports, wear protective shoulder pads.

■ ■ ■ 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. The potential for repeated shoulder dislocations depends on the amount of trauma necessary to cause the first dislocation, age at the time of injury (younger age at the time of first dislocation leads to a higher risk of recurrent dislocations; if you are under 18 years old at first dislocation, there is a more than 90% risk of another dislocation of the same shoulder), and associated shoulder injury. If customary treatment does not prevent a recurrence, athletic activities should be modified until surgery can be performed to fix the problem.

■ ■ ■ 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 (usually if you are older than age 40 at time of first dislocation)

- Repeated shoulder dislocations, particularly if the previous dislocation is not healed completely or appropriately rehabilitated; most recurrent dislocations are caused by repeated injury, but with increasing number of dislocations, less force is necessary to cause dislocation
- 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 needed to restore the joint to its normal position, while also repairing ligaments. Immobilization by sling or immobilizer for 3 to 8 weeks is usually 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. 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 appropriate rehabilitation. This can be done arthroscopically or through a standard incision.

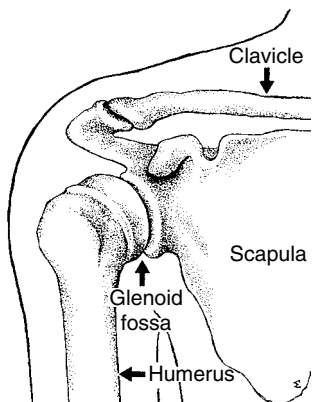


Figure 1

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

■ ■ ■ 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)

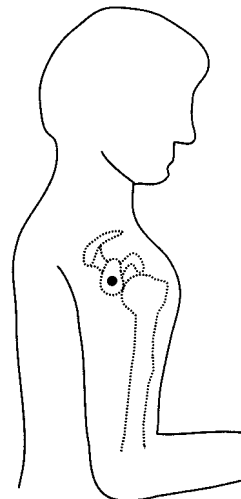


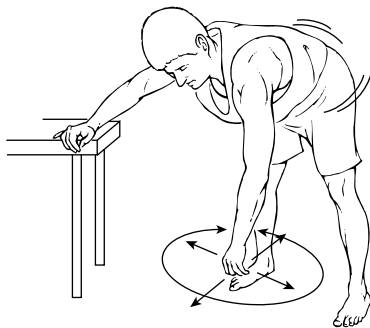
Figure 2

From Economou SG, Economou TS: Instructions for Surgery Patients. Philadelphia, WB Saunders, 1998, p. 671.

> RANGE OF MOTION AND STRETCHING EXERCISES • Shoulder Instability, Anterior

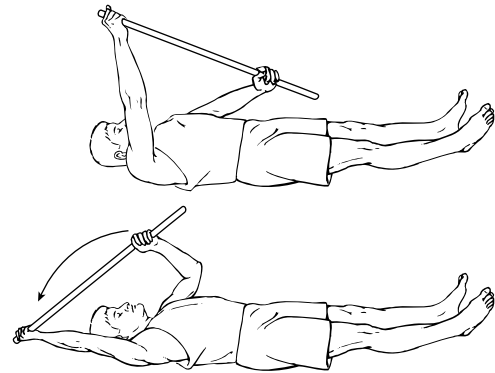
These are some of the *initial* exercises you may start your rehabilitation program with after your surgeon has stated that you may begin moving your shoulder. The period of time your shoulder is immobilized (often 2 to 6 weeks) will vary depending on the type and severity of injury. Continue these exercises 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 both your hands and your elbows behind the midline of your body with your arms at shoulder height or above. 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.



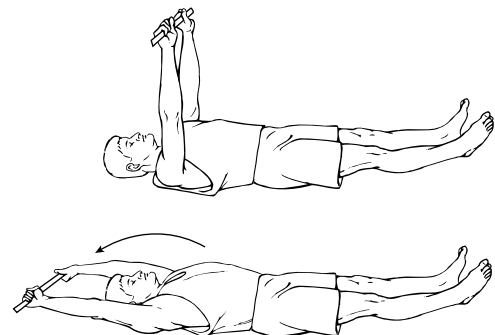
SHOULDER • Pendulum

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.



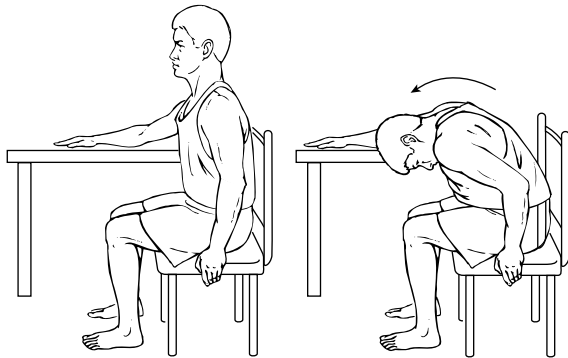
SHOULDER • Flexion

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.



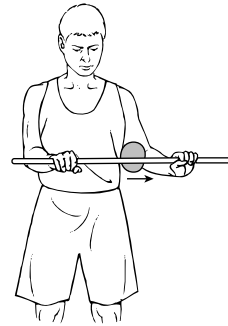
SHOULDER • Flexion

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.



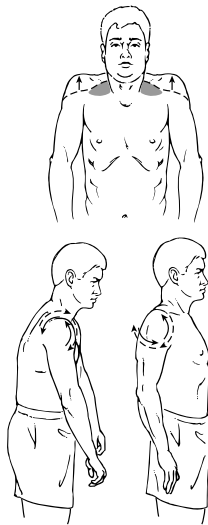
SHOULDER • External Rotation

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.

➤ **STRENGTHENING EXERCISES** • Shoulder Instability, Anterior

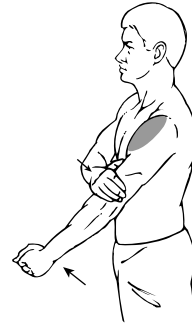
These are some of the *initial* exercises you may start your rehabilitation program with after your surgeon has stated that you may begin moving your shoulder. The period of time your shoulder is immobilized will vary depending on the type and severity of injury. Initially, when performing these exercises 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 both your hands and your elbows behind the midline of your body with your arms at shoulder height or above. 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.



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.



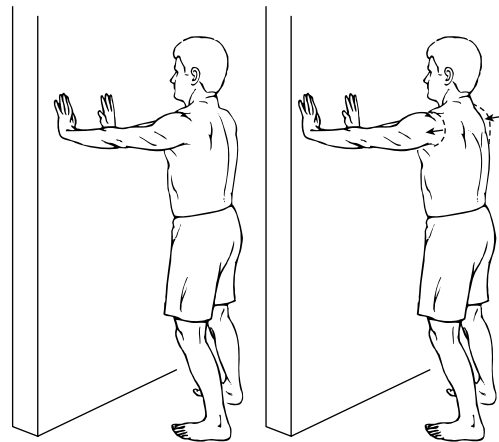
STRENGTH • Shoulder, External Rotation, Isometric

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.



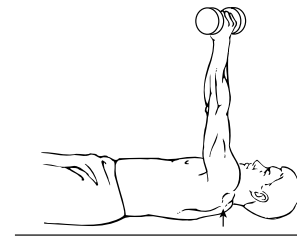
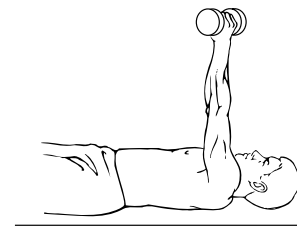
SHOULDER • Internal Rotation, Isometric

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.



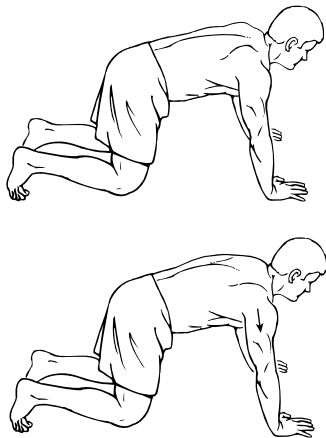
SHOULDER • Scapular Protraction

1. Stand with your hand against a wall as shown.
2. Keep your elbows straight and push down with your hands, raising the back of your shoulders away from the wall as shown in the drawing.
3. The farther away from the wall you stand, the harder the exercise.
4. Hold this position for _____ seconds and then *slowly* return to the starting position.
5. Repeat exercise _____ times, _____ times per day.



SHOULDER • Scapular Protraction

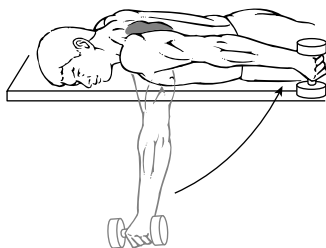
1. Lie on your back with your _____ arm straight up in the air as shown. Hold a _____ pound weight in your hand.
2. Push your hand up toward the ceiling, keeping your elbow straight and raising your shoulder off the floor.
3. Hold this position for _____ seconds and then *slowly* return to the starting position.
4. Repeat exercise _____ times, _____ times per day.



SHOULDER • Scapular Protraction

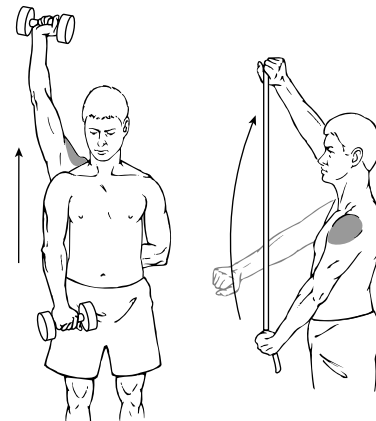
1. Position yourself on your hands and knees as shown.
2. Keep your elbows straight and push down with your hands, raising the back of your shoulders up as shown in the drawing.
3. Hold this position for _____ seconds and then *slowly* return to the starting position.
4. Repeat exercise _____ times,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



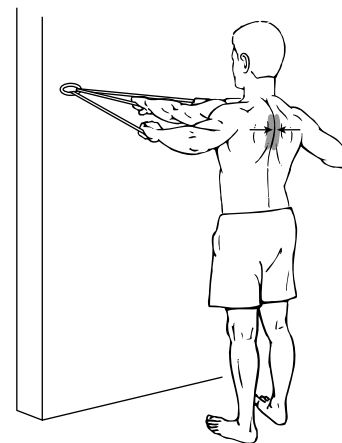
STRENGTH • Shoulder Extension

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.



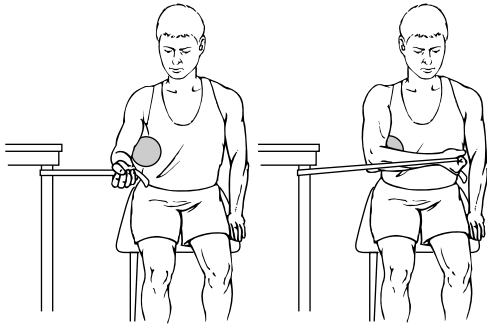
STRENGTH • Shoulder Flexion

1. Stand holding a _____ 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.



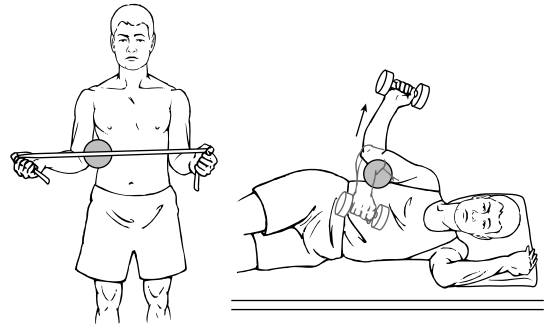
SHOULDER • Scapular Retraction

1. Anchor rubber band/tubing to a stable, fixed object.
2. Hold one end of the band/tubing in each hand with your arms straight out in front of you.
3. Squeeze/pinch your shoulder blades together.
4. Keeping your shoulder blades pinched together, pull your arms back as shown. Your hands should be level with your shoulders when you finish. Do not let your elbows go behind your body.
5. Hold this position for _____ seconds and then *slowly* return to the starting position.
6. 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

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.

Notes:

(Up to 4400 characters only)

Notes and suggestions