

SHOULDER INSTABILITY, MULTIDIRECTIONAL, SURGERY FOR



■ ■ ■ Indications (Who Needs Surgery, When, Why and Goals)

Surgery for shoulder instability is reserved for people who have recurrent shoulder dislocations or subluxations that affect activities of daily living or sports activities. Usually these patients have tried an appropriate rehabilitation program for at least 6 months with symptomatic recurrent shoulder dislocation or subluxation. This type of instability is uncommonly due to trauma. More often, there is no history of trauma or repetitive trauma, such as with repetitive throwing or swimming. The likelihood of success of a rehabilitation program is 80%. Surgery may also be performed in a patient who has had a prior failed operation for shoulder instability. The goal of surgery is to stabilize the shoulder to prevent further subluxations or dislocations. One of the reasons the shoulder is the most commonly dislocated major joint is that it has more motion than any other major joint. Tightening the shoulder joint may reduce some shoulder motion. Stabilizing the shoulder is done by tightening the capsule. The directions of instability are anterior (front), posterior (back), or inferior (below the glenoid). Less often, other structures may be moved or used to replace or give additional support to the capsule of the shoulder. Recurrent dislocations or subluxations without fracture are rarely associated with arthritis. Thus the timing of surgery in relation to the injury is not critical. The results of shoulder stabilization for multidirectional instability are not as good as for anterior stabilization.

■ ■ ■ Contraindications (Reasons Not To Operate)

- Infection of the shoulder
- Inability or unwillingness to complete the postoperative program of keeping the shoulder in a sling or immobilizer or to perform the rehabilitation necessary
- Emotional or psychological problems that contribute to their shoulder condition
- Voluntary instability (dislocating the shoulder at will, particularly for secondary gain)

Nerve injury around the shoulder, causing weak rotator cuff muscles, is a relative contraindication. Shoulder arthritis is a relative contraindication.

■ ■ ■ Risks and Complications of Surgery

- Infection
- Bleeding
- Injury to nerves (numbness, weakness, paralysis) of the shoulder and arm
- Recurrence of instability (dislocation or subluxation)
- Overtightening in one direction, resulting in subluxation or dislocation in the opposite direction
- Continued pain

- Stiffness or loss of motion of the shoulder
- Inability to return to same level of competition
- Moving or breaking of surgical anchors
- Arthritis

■ ■ ■ Technique (What Is Done)

Different techniques are in use at this time. There are arthroscopic techniques and open-incision techniques. The overall goal is to tighten the capsule and ligaments. Although the looseness is in more than one direction, there is usually one direction of instability or looseness that predominates. The surgical approach is dependent on the direction of greatest looseness and on the degree of ligament laxity. The surgical approach may be from the front of the shoulder, the back of the shoulder, or both.

One of the most popular open techniques involves getting to the shoulder capsule by splitting or moving muscles and tightening the stretched capsule and ligaments by folding the excess capsule underneath itself and stitching it together with sutures (threads), with or without surgical anchors, which are inserted into the glenoid rim. This can be done in the front of the shoulder or from the back of the shoulder. Usually some looseness of the back of the shoulder and bottom of the shoulder can be eliminated when tightening from the front of the shoulder.

Arthroscopic techniques involve using small incisions (arthroscopy portals) to tighten the stretched capsule, either by folding the excess capsule underneath itself and sewing it together with sutures (threads), with or without surgical anchors, which are inserted into the glenoid rim, or by using heat to shrink it.

Other techniques do not try to replicate the normal anatomy of the shoulder capsule and ligaments. These include moving muscle to reduce shoulder motion or moving bone from another area and using the bone to block shoulder dislocations.

■ ■ ■ Postoperative Course

- Management after surgery varies based on technique used and surgeon preference, as well as arm dominance and the sport you participate in.
- Keep the wound clean and dry for the first 10 to 14 days after surgery.
- Keep the shoulder in a sling, brace, or immobilizer for as long as your surgeon tells you, usually 3 to 12 weeks.
- You will be given pain medications by your physician.
- Postoperative rehabilitation and exercises are very important to regain motion and then strength.

■ ■ ■ Return To Sports

- Return to sports depends on the type of sport and position, as well as the quality of ligaments at the time of repair.

- Usually 6 to 12 months is necessary after surgery before returning to sports.
- Full shoulder motion and strength are necessary before returning to sports.

■ ■ ■ **Notify Our Office If**

- You experience pain, numbness, or coldness in the hand
- Blue, gray, or dusky color appears in the fingernails
- Any of the following occur after surgery:
 - Increased pain, swelling, redness, drainage, or bleeding in the surgical area
 - 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)

Do not eat or drink anything before surgery. Solid food makes general anesthesia more hazardous.

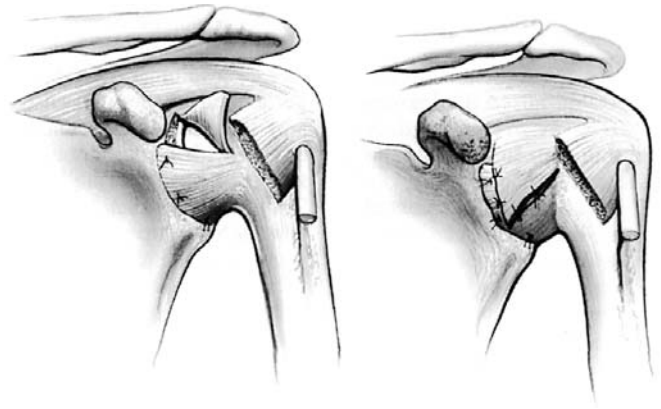


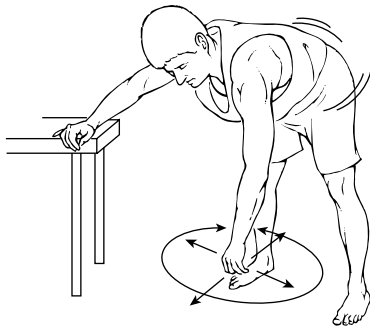
Figure 1

From Nicholas JA, Hershman EB: *The Upper Extremity in Sports Medicine*. St. Louis, Mosby, 1995, p. 190.

➤ **RANGE OF MOTION AND STRETCHING EXERCISES** • Shoulder Instability, Multidirectional, Surgery For—Phase I: Immediately After Immobilization

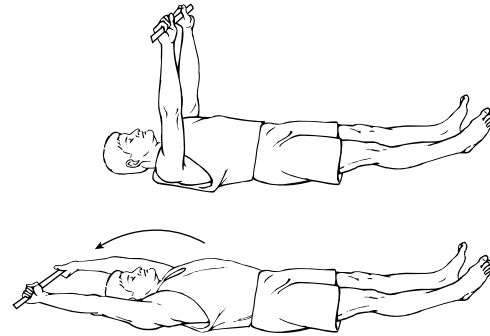
These are some of the *initial* exercises you may start your rehabilitation program with after your surgeon has stated that you may begin moving your shoulder. The period of time your shoulder is immobilized (often 3 to 12 weeks) will vary depending on the type and severity of injury and the type of surgery. Continue these exercises as instructed until you see your physician, physical therapist, or athletic trainer again. You should attempt to avoid the extreme end ranges of motions that place your elbow all the way across the front of your body or place your hand and elbow behind the midline 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.



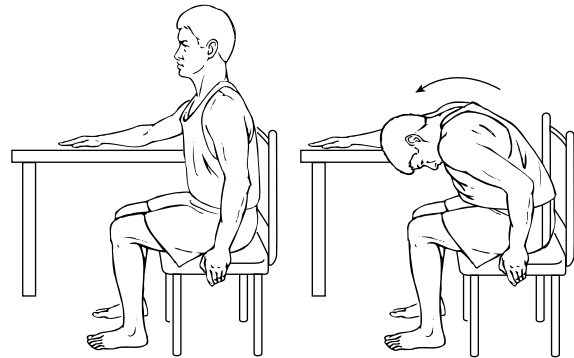
SHOULDER • Pendulum

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 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.



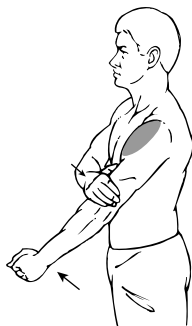
SHOULDER • Flexion

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.

➤ **STRENGTHENING EXERCISES** • Shoulder Instability, Multidirectional, Surgery For—
Phase I: Immediately After Immobilization

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 3 to 12 weeks) will vary depending on the type and severity of injury. Initially, when performing these *strengthening* 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. You should attempt to avoid the extreme end ranges of motions that place your elbow all the way across the front of your body or place your hand and elbow behind the midline 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.



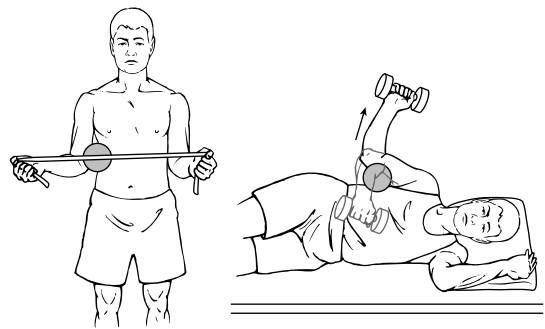
STRENGTH • Shoulder Flexion, Isometric

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.



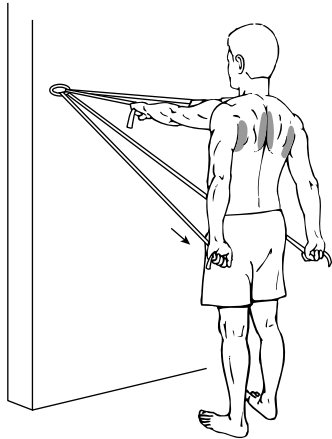
STRENGTH • Shoulder Abduction, Isometric

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.



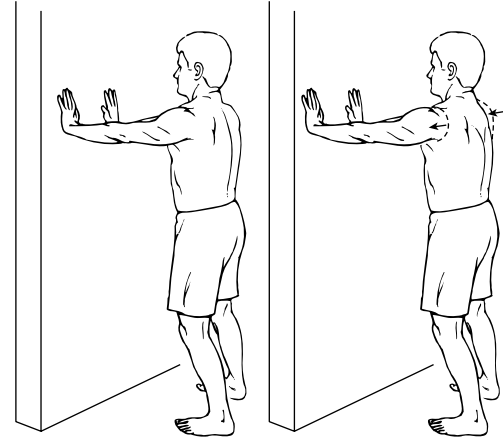
STRENGTH • Shoulder External Rotation

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.



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. 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.



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.



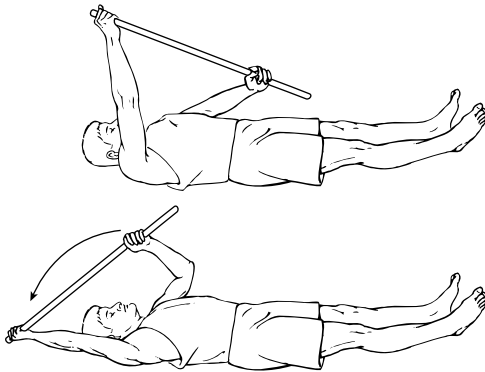
SHOULDER • Internal Rotation, Isometric

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.

➤ **RANGE OF MOTION AND STRETCHING EXERCISES** • Shoulder Instability, Multidirectional, Surgery For—Phase II

These are some of the exercises you may start your rehabilitation program with after your surgeon has cleared you to go onto this phase. All Phase I exercises may also be continued as appropriate. You should attempt to avoid the extreme end ranges of motions that place your elbow all the way across the front of your body or place your hand and elbow behind the midline 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.



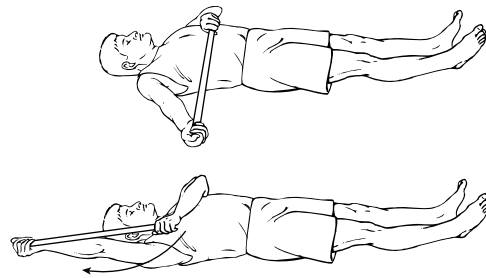
SHOULDER • Flexion

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.



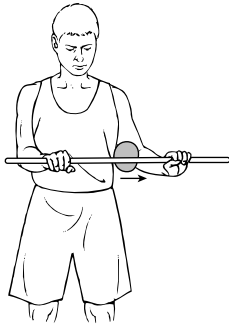
SHOULDER • Flexion

1. 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.



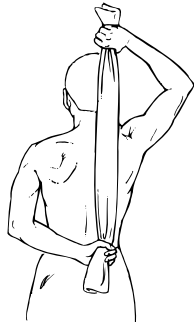
SHOULDER • Abduction

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.



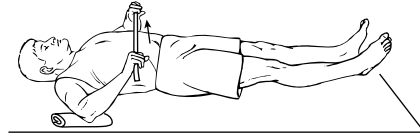
SHOULDER • External Rotation

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. Place your _____ hand behind your back.
2. Drape a towel over your opposite shoulder and grasp it with the hand that is behind your back.
3. Use the towel to gently pull your hand farther up your back until you feel a gentle stretch.
4. Repeat exercise _____ times, _____ times per day. Hold each repetition 5 to 10 seconds.



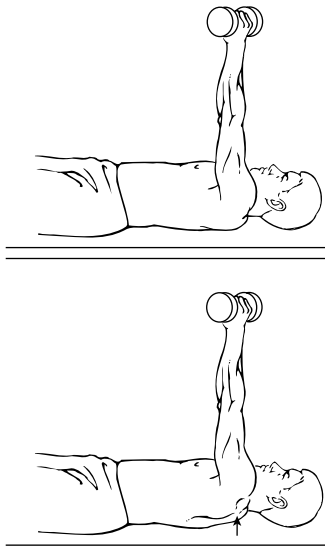
SHOULDER • Internal Rotation

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** • Shoulder
Instability, Multidirectional, Surgery
For—Phase II

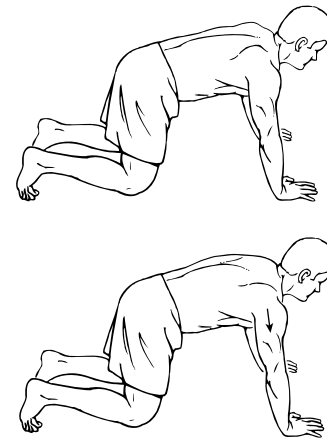
These are some of the exercises you may start your rehabilitation program with after your surgeon has cleared you to go on to this phase. All Phase I exercises may also be continued as appropriate. You may begin to work on strengthening exercises above shoulder height if cleared by your physician, physical therapist, or athletic trainer. You should attempt to avoid the extreme end ranges of motions that place your elbow all the way across the front of your body or place your hand and elbow behind the midline 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 Protraction

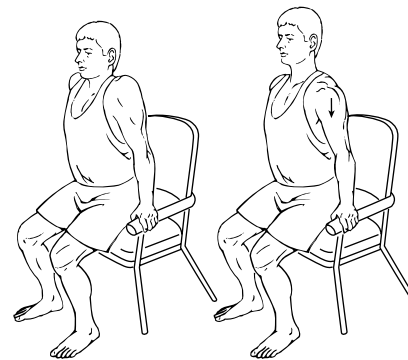
1. Lie on your back with your _____ arm straight up in the air as shown. Hold a _____ pound weight in your hand.
2. Push your hand up toward the ceiling, keeping your elbow straight and raising your shoulder off the floor.
3. Hold this position for _____ seconds and then *slowly* return to the starting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



SHOULDER • Scapular Protraction

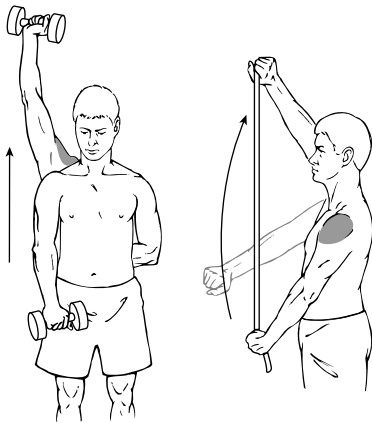
1. Position yourself on your hands and knees as shown.
2. Keep your elbows straight and push down with your hands, raising the back of your shoulders up as shown in the drawing.
3. Hold this position for _____ seconds and then *slowly* return to the starting position.
4. Repeat exercise _____ times,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



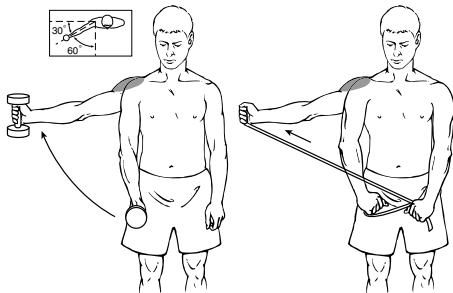
SHOULDER • Depression

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.



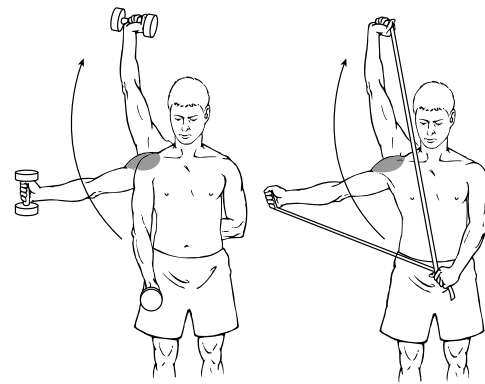
STRENGTH • Shoulder Flexion

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.



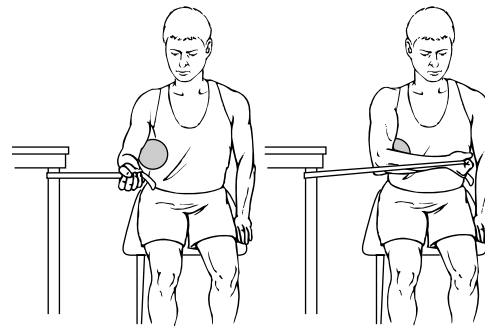
STRENGTH • Scaption, Thumb Up

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.



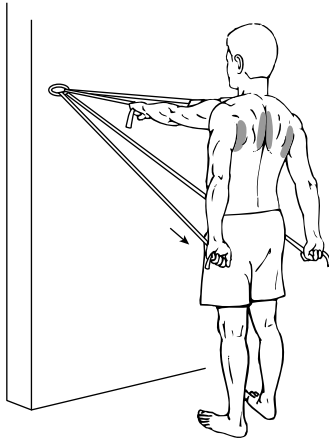
STRENGTH • Shoulder Abduction

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.



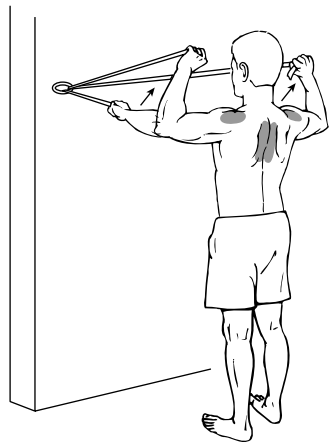
SHOULDER • Internal Rotation

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 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.

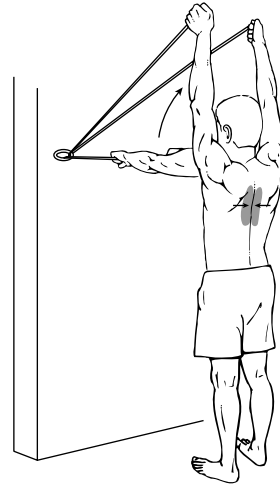
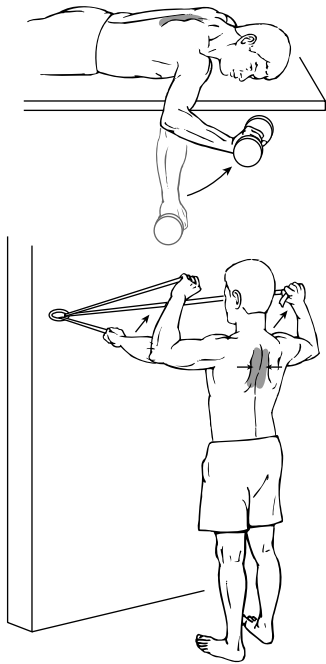


SHOULDER • Scapular Retraction

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.

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.

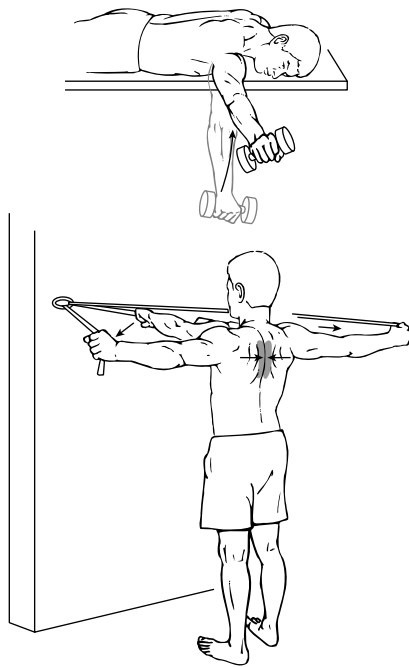


SHOULDER • Scapular Retraction and External Rotation

1. **If using a weight**—Lie on your stomach with your _____ arm out to the side and over the edge of the bed as shown. The elbow should be bent to 90 degrees and the upper arm should be supported by the bed. Hold a _____ pound weight in your hand.
2. Turn/rotate your arm up toward the ceiling while keeping the elbow bent.
3. Squeeze/pinch your shoulder blades together.
4. Hold this position for _____ seconds and then *slowly* return to the starting position.
5. Repeat exercise _____ times, _____ times per day.
1. **If using rubber band/tubing**—Hold one end of the band/tubing in each hand. Your elbows should be bent 90 degrees and at shoulder height.
2. Squeeze/pinch your shoulder blades together.
3. Keeping your shoulder blades pinched together, turn your arms up as if someone had said “Stick ’em up!” Your hands should be in the position shown when you finish. *Do not bring your elbows or your hands past the middle 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 Retraction and Elevation

1. Hold one end of the band/tubing in each hand. Your elbows should be bent 90 degrees and at shoulder height.
2. Squeeze/pinch your shoulder blades together.
3. Keeping both arms straight, raise them both up overhead.
4. Lead with your thumbs so that they are in a “thumbs-up” position.
5. Hold this position for _____ seconds and then *slowly* return to the starting position.
6. Repeat exercise _____ times, _____ times per day.



SHOULDER • Horizontal Abduction

1. **If using a weight**—Lie on your stomach with your _____ arm over the edge of the bed as shown, holding a _____ pound weight in your hand.
2. Raise the arm up slowly so that it is level with the edge of the bed. Keep your elbow straight.
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 arms straight out in front of you.
3. Spread your arms apart, pulling straight backward, keeping them 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.



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