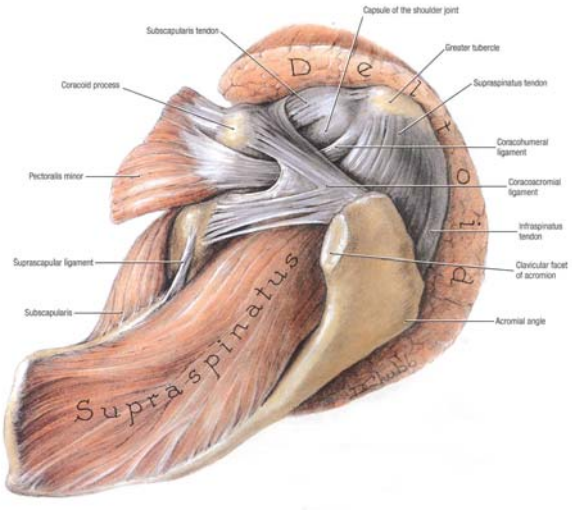
Sports Medicine
MASSACHUSETTS GENERAL HOSPITAL
ORTHOPAEDICS

175 Cambridge Street, 4th floor
Boston, MA 02114
617-726-7500

SHOULDER - TORN ROTATOR CUFF WITH SLAP TEAR

ANATOMY AND FUNCTION-ROTATOR CUFF



The shoulder joint is a ball and socket joint that connects the bone of the upper arm (humerus) with the shoulder blade (scapula). The capsule is a broad ligament that surrounds and stabilizes the joint. The shoulder joint is moved and also stabilized by the **rotator cuff.** The rotator cuff is comprised of four muscles and their tendons that attach from the scapula to the humerus. The rotator cuff tendons (supraspinatus, infraspinatus, teres minor and subscapularis) are just outside the shoulder joint and its capsule. The muscles of the rotator cuff help stabilize the shoulder and enable you to lift your arm, reach overhead, and take part in activities such as throwing, swimming and tennis.

ROTATOR CUFF INJURY AND TREATMENT OPTIONS

The rotator cuff can tear as an acute injury such as when lifting a heavy weight or falling on the shoulder or elbow. The shoulder is immediately weak and there is pain when trying to lift the arm. A torn rotator cuff due to an injury is usually best treated by immediate surgical repair. The rotator cuff can also wear out as a result of degenerative changes. This type of rotator cuff tear can usually be repaired but sometimes the tear may not need to be repaired and sometimes cannot be repaired. However, if the tear is causing significant pain and disability, surgery may be the best treatment to relieve pain and improve shoulder function. If a torn rotator cuff is not repaired, the shoulder often develops degenerative changes and arthritis many years later. This type of arthritis is very difficult to treat and the longstanding tear in the rotator cuff may be irreparable.

DIAGNOSIS OF TORN ROTATOR CUFF

Symptoms of shoulder pain that awaken you at night, and weakness raising the arm are suggestive of a torn rotator cuff. Examination of the shoulder usually reveals weakness. The diagnosis can be confirmed by magnetic resonance imaging (MRI) or an x-ray taken after dye has been injected into the shoulder (arthrogram). A more sensitive test such as arthrogram MRI or arthroscopy may be needed to diagnose a small tear or a partial tear of the rotator cuff.

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ROTATOR CUFF REPAIR

Most rotator cuff tears can be repaired surgically by reattaching the torn tendon(s) to the humerus. It is not a big operation to repair a torn rotator cuff, but the rehabilitation time can be long depending on the size of the tear and the quality of the tendons/muscles.

The deltoid muscle is separated to expose the torn rotator cuff tendon(s). Sutures are attached to the torn tendons. Tiny holes are made in the humerus where the tendons were attached and the sutures are passed through the bone and tied, securing the rotator cuff tendons back to the humerus. Sometimes, suture anchors are used as well. The tendons heal back to the bone, reestablishing the normal tendon-to-bone connection. It takes several months for the tendon to heal back to the bone. During this time, forceful use of the shoulder such as weight lifting and raising the arm out to the side or overhead must be avoided.

After surgery, you will probably use a sling for 4 to 6 weeks. You can remove the sling 4 to 5 times a day for gentle pendulum motion exercises. Rarely, a large pillow that holds your arm out to the side of your body is needed for 6 weeks if the tear is very large or difficult to repair.

RESULTS OF SURGERY AND RISKS

The success of surgery to repair the rotator cuff depends upon the **size** of the tear and **how long ago** the tear occurred.. Usually, a small tear has a good chance for full recovery. If the tear is large, the extent of recovery cannot be accurately predicted until the repair and rehabilitation is completed. If the tear occurred a long time ago (several months or longer) it can be difficult or sometimes impossible to repair. Most patients achieve good pain relief following repair regardless of the size of the tear unless the tear is massive.

Shoulder pain is usually worse than before surgery the first 3 to4 weeks or even several months after surgery, but then gradually the pain lessens. This is especially true while trying to sleep at night. It can take up to a full year to regain motion and function in the shoulder. Shoulder stiffness and loss of motion are potential problems after rotator cuff repair. Re-rupture of the repaired rotator cuff is possible if too much force is placed on the repaired tendon before it is fully healed. Nerve and muscle injury and infection are infrequent complications.

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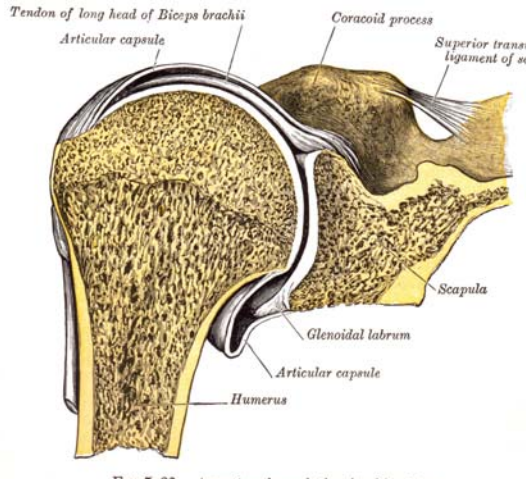
ARTHROSCOPIC LABRUM REPAIR (SLAP)

ANATOMY AND FUNCTION - GLENOID LABRUM



The shoulder joint involves three bones: the scapula (shoulder blade), the clavicle (collarbone) and the humerus (upper arm bone). The humeral head rests in a shallow socket on the scapula called the glenoid. Because the head of the humerus much larger than the glenoid, a soft fibrous tissue labrum called the labrum surrounds the glenoid to help deepen and stabilize the joint. The labrum deepens the glenoid by up to 50 percent so that the head of the humerus fits better. In addition, it serves as an attachment site for several ligaments.

INJURIES

Injuries to the labrum can occur from acute trauma or repetitive shoulder motion. Examples of traumatic injury include:

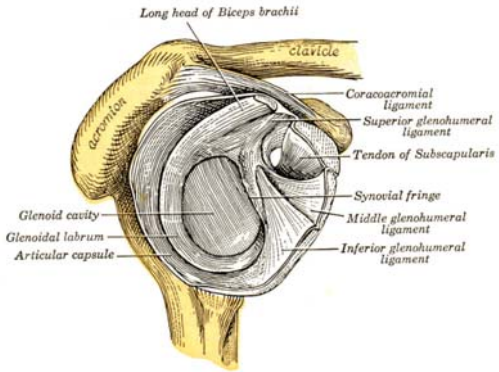
- Falling on an outstretched arm
- Direct blow to the shoulder
- Sudden pull, such as when trying to lift a heavy object
- Forceful overhead motions

Tears can be located either above (superior) or below (inferior) the middle of the glenoid. A SLAP lesion (superior labrum, anterior [front] to posterior [back]) is a tear of the labrum above the middle of the glenoid that may also involve the biceps tendon. A tear of the labrum below the middle of the glenoid socket that also involves the inferior glenohumeral ligament is called a Bankart lesion. Tears of the glenoid labrum often occur with other shoulder injuries, such as a dislocated shoulder (full or partial dislocation).

SIGNS AND SYMPTOMS

It is difficult to diagnose a tear in the glenoid labrum because the symptoms are very similar to other shoulder injuries. Symptoms include:

- Pain, usually with overhead activities
- Catching, locking, popping or grinding
- Occasional night pain or pain with daily activities
- A sense of instability in the shoulder
- Decreased range of motion
- Loss of strength



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TREATMENT

Until the final diagnosis is made, your doctor may prescribe anti-inflammatory medication and rest to relieve symptoms. Rehabilitation exercises to strengthen the rotator cuff muscles may also be recommended. If these conservative measures are insufficient, your doctor may recommend arthroscopic surgery.

During the surgery, your doctor will examine the labrum and the biceps tendon. If the injury is confined to the labrum itself, without involving the tendon, the biceps tendon attachment is still stable. Your doctor will remove the torn flap and correct any other associated problems. If the tear extends into the biceps tendon or if the tendon is detached, the result is an unstable biceps attachment. Your doctor will need to repair and reattach the tendon, using suture anchoring devices. If there is a tear below the middle of the glenoid, your doctor will reattach the ligament to the glenoid (Bankart repair).

REHABILITATION

After surgery, you will need to keep your shoulder in a sling for three to four weeks. Your doctor will also prescribe gentle, passive range-of-motion exercises. When the sling is removed, you will need to do motion and flexibility exercises and eventually start strengthening. It will be about six months before the shoulder is fully healed.

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PREOPERATIVE INSTRUCTIONS

Schedule surgery with the secretary in your doctor's office office.

Within one month before surgery

* Make an appointment for a **preoperative office** visit regarding surgery
* A history and physical examination will be done
* Receive instructions
* Complete blood count (CBC)
* Electrocardiogram (EKG) if over the age of 40

Within several days before surgery

* Wash the shoulder and area well
* Be careful of the skin to avoid sunburn, poison ivy, etc.

The day before surgery

* Check with your doctor's office for your time to report to the Surgical Day Care Unit the next day (617-726-7500)
* ***NOTHING TO EAT OR DRINK AFTER MIDNIGHT***. If surgery will be done in the afternoon, you can have **clear liquids only** up to **six hours** before surgery but no milk or food.

The day of surgery

- **nothing to eat or drink**

- For surgery at MGH main campus in Boston: Report directly to the **12th floor of the Lunder Building, Center for Preoperative Care at Massachusetts General Hospital,** two hours prior to surgery**.**

- For surgery at the surgery center at MGH West in Waltham: Report directly to the **Ambulatory Surgery Center** on the **second floor of Mass General West.**

- For surgery at the surgery center at Brigham and Women's Hospital/MGH Foxborough **Report directly to the 4th Floor**

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SHOULDER - ROTATOR CUFF REPAIR WITH SLAP REPAIR
POSTOPERATIVE INSTRUCTIONS

Phase One: the first week after surgery

GOALS:

1. Control pain and swelling
2. Protect the rotator cuff repair
3. Protect wound healing
4. Begin early shoulder motion

ACTIVITIES:

Immediately After Surgery

1. After surgery you will be taken to the recovery room room, where your family can meet you. You will have a **sling** on your operated arm. Rarely, an **abduction pillow** is needed to hold the arm up in the air away from the body.
2. You should get out of bed and move around as much as you can.
3. When lying in bed , elevate the head of your bed and put a small pillow under your arm to hold it away from your body.
4. Apply cold packs to the operated shoulder to reduce pain and swelling.
5. Move your fingers, hand and elbow to increase circulation.
6. The novocaine in your shoulder wears off in about 6 hours. Ask for pain medication as needed.
7. You will receive a prescription for pain medication for when you go home (it will make you constipated if you take it for a long time).

The Next Day After Surgery

1. The large dressing can be removed and a small bandage applied.
2. Remove the sling several times a day to gently move the arm in a pendulum motion: lean forward and passively swing the arm.
3. You can be discharged home from the hospital or surgery center as long as there is no problem.

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At Home

1. You can remove the bandages but leave the small pieces of tape (steristrips) in place.
2. You may shower and get the incision wet. To wash under the operated arm, bend over at the waist and let the arm passively come away from the body. It is safe to wash under the arm in this position. This is the same position as the pendulum exercise.
3. Apply cold to the shoulder for 20 minutes at a time as needed to reduce pain and swelling.
4. Remove the sling several times a day: move the elbow wrist and hand. Lean over and do pendulum exercises for 3 to 5 minutes every 1 to 2 hours.
5. **DO NOT** lift your arm at the shoulder using your muscles.
6. Because of the need for your comfort and the protection of the repaired tendon, a sling is usually necessary for 4 to 6 weeks, unless otherwise instructed by your surgeon.

.OFFICE VISIT:

Please arrange to see your surgeon in the office 7-10 days after surgery for suture removal and further instructions. If you have questions or concerns regarding your surgery or the rehabilitation protocol and exercises call **617-726-7500.**

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Rehabilitation after Rotator Cuff Repair with SLAP Repair

Phase One: 0 to 6 weeks after surgery

Goals:
1. Protect the rotator cuff and SLAP repair
2. Ensure wound healing
3. Prevent shoulder stiffness
4. Regain range of motion

Activities:
1. Sling

Use your sling most of the time. Remove the sling 4 or 5 times a day to do pendulum exercises.

2. Use of the affected arm

You may use your hand on the affected arm in front of your body but ***DO NOT*** raise your arm or elbow away from your body. It is all right for you to flex your arm at the elbow. Also:
*No Lifting of Objects
*No Excessive Shoulder Extension
*No Excessive Stretching or Sudden Movements
*No Supporting of Body Weight by Hands

3. Showering

You may shower or bath and wash the incision area. To wash under the affected arm, bend over at the waist and let the arm passively come away from the body. It is safe to wash under the arm in this position. This is the same position as the pendulum exercise.

Exercise Program
ICE
Days per Week: 7 As necessary 15- 20 minutes
Times per Day: 4-5

STRETCHING / PASSIVE MOTION
Days per Week: 7 Times per day: 4-5

Program:
Pendulum exercises
Supine External Rotation
Supine passive arm elevation
Scapular retraction
Shoulder shrug
Ball squeeze exercise
Starting at **3rd week** after surgery:
Behind the back internal rotation

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Rehabilitation after Rotator Cuff Repair with SLAP Repair

Phase two: 6 to 12 weeks after surgery

Goals:
1. Protect the rotator cuff repair
2. Improve range of motion of the shoulder
3. Begin gentle strengthening

Activities
1. Sling

Your sling is no longer necessary unless your doctor instructs you to continue using it.

2. Use of the operated arm

You should continue to avoid lifting your arm away from your body, since this is the action of the tendon that was repaired. You can lift your arm forward in front of your body but **not** to the side. You may raise your arm to the side, if you use the good arm to assist the operated arm.

3. Bathing and showering

Continue to follow the instructions from phase one and the instructions above.

Exercise Program
The exercises listed below may be gradually integrated into the rehabilitation program under the supervision of your doctor and/or physical therapist.

STRETCHING / ACTIVE MOTION
Days per week: 5-7 Times per day: 1-3

Stretching
Pendulum exercises
Supine External Rotation
Standing External Rotation
Supine passive arm elevation
Active-Assisted Arm Elevation
Behind the back internal rotation
Hands-behind-head stretch

Starting the 9th week after surgery
Supine Cross-Chest Stretch

Starting the 8th week after surgery
Wall slide Stretch
Overhead pullies

Active Motion- progressive
Side-lying External Rotation
Prone Horizontal Arm Raises "T"
Prone row
Prone scaption "Y"
Prone extension
Active-assisted Arm Elevation progressing to:
Standing Forward Flexion (scaption) with scapulohumeral rhythm

Resisted forearm pronation
Resisted wrist flexion-extension
Sub-maximimal isometric exercises: internal and external rotation at neutral with physical therapist
Rhythmic stabilization and proprioceptive training drills with physical therapist

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Rehabilitation after Rotator Cuff Repair with SLAP Repair

Phase Three: 12-18 weeks after surgery

Goals:
1. Protect the rotator cuff and SLAP repair
2. Regain full range of motion
3. Continue gentle strengthening

Activities:
Use of the operated arm
You may now safely use the arm for normal daily activities involved with dressing, bathing and self-care. You may raise the arm away from the body; however, you should not raise the arm when carrying objects greater than one pound. Any forceful pushing or pulling activities could disrupt the healing of your surgical repair.

Exercise Program
The exercises below form a list that may be gradually integrated into the rehabilitation program under the supervision of your doctor and/or physical therapist. Resistance for the dynamic strengthening exercises can gradually be added starting with 1 lb and should not exceed 3 lb at this time.

STRETCHING / ACTIVE MOTION / STRENGTHENING
Days per week: 3 Times per day: 1

Stretching
Pendulum exercises
Supine external Rotation
Standing external Rotation
Supine passive arm elevation
Behind the back internal rotation
Hands-behind-the-head stretch
Supine cross-chest stretch
Sidelying internal rotation stretch
External rotation at 90° abduction stretch
Wall slide Stretch

Dynamic Strengthening
Side-lying External Rotation
Prone Horizontal Arm Raises "T"
Prone scaption "Y"
Prone row
Prone extension
Scapulohumeral rhythm exercises
Standing forward flexion (scaption)
PNF manual resistance with physical therapist
Proprioception drills

Theraband Strengthening
External Rotation
Internal Rotation
Standing Forward Punch
Shoulder Shrug
Dynamic hug
"W"'s
Seated Row
Biceps curl

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Rehabilitation After Rotator Cuff Repair with SLAP Repair

Phase 4: 18 to 26 weeks after surgery

Goals:
1. Continue to protect the repair by avoiding excessive forceful use of the arm or lifting excessively heavy weights.
2. Restore full shoulder motion
3. Restore full shoulder strength
4. Gradually begin to return to normal activity

Activities:
1. Sports that involve throwing and the use of the arm in the overhead position are the most demanding on the rotator cuff. Your doctor and sports physical therapist will provide you with specific instructions on how and when to return to golf, tennis, and volleyball, swimming and throwing.
2. For people who wish to return to training with weights, you're your doctor will give you guidelines regarding the timing and advice when returning to a weight-training program.
3. The following timetable can be considered as a minimum for return to most activities:

Ski	6 months
Golf	6 months
Weight Training	6 months
Tennis	6 -8 months
Swimming	6-8 months
Throwing	6 months

Before returning safely to your activity, you must have full range of motion, full strength and no swelling or pain.
Your doctor or physical therapist will provide you with a specific interval-training program to follow when it is time to return the above activities.

STRETCHING / ACTIVE MOTION / STRENGTHENING
Days per week: 3 Times per day: 1

Stretching

Behind the back internal rotation
Standing External Rotation / Doorway
Wall slide Stretch
Hands-behind-head stretch
Supine Cross-Chest Stretch
Sidelying internal rotation (sleeper stretch)
External rotation at 90° Abduction stretch

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Phase 4 continued

Theraband Strengthening

External Rotation
Internal Rotation
Standing Forward Punch
Shoulder Shrug
Dynamic hug
"W"'s
Optional for Overhead Sports:
External rotation at 90°
Internal rotation at 90°
Standing 'T's
Diagonal up
Diagonal down

Dynamic Strengthening

It is recommended that these exercises be limited to resistance not to exceed 5lb.

Side-lying External Rotation
Prone Horizontal Arm Raises "T"
Prone scaption "Y"
Prone row
Prone extension
Standing Forward Flexion
Standing forward flexion "full-can" exercise
Prone external rotation at 90° abduction "U's
Push-up progression

Plyometric Exercises

Your doctor or physical therapist will provide you with a specific plyometric-training program to follow when appropriate.

Weight Training

See weight training precautions

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Rehabilitation after Rotator Cuff Repair with SLAP Repair of the Shoulder

Post-op Phase	Sling	Range of Motion	Therapeutic Exercise		Precautions
Phase 1 0 to 6 weeks after surgery Goals: *Maintain integrity of the repairs *Do not overstress healing tissue *Gradually increase passive range of motion *Diminish pain and inflammation *Prevent muscular inhibition	Per MD instructions. Pendulum exercises several times a day	**Passive ROM only** *Flexion as tolerated Weeks 0-2 *Flexion as tolerated *rotation with arm in scapular plane at 40º abduction: *ER to 15 º *IR to 30º Weeks 3-4 *Flexion as tolerated *Abduction to 80º *ER/IR with arm in scapular plane at 40º abduction: *ER: 30 º *IR : 30 º *Limit IR behind back to beltline	Pendulum exercise Supine FF as tolerated. ERN as tolerated. Scapular retraction IR behind back may start after 2 weeks. Passive ROM with physical therapist is OK Pendulum exercise	Ball squeezes ROM for elbow, forearm, hand	*No active elevation For first 6 weeks post-op *No Lifting of Objects *No Excessive Shoulder Extension *No Excessive Stretching or Sudden Movements *No Supporting of Body Weight by Hands *Avoid ER in abduction.
Phase 2 6 to 12 weeks after surgery Goals: *Maintain integrity of the repairs *Do not overstress healing tissue *Gradually increase passive and active range of motion to full *Re-establish dynamic shoulder stability *Re-establish scapulohumeral rhythm	D/C	5th to 7th weeks after surgery *Flexion as tolerated *ER at 45º abduction: 50º *IR at 45º abduction: 60º *At 6 weeks begin light and gradual ER at 90º abduction Gentle mid-range ER in POS, gradually progress to coronal plane. Cautiously improve ERN. Week 7-9: *Gradually progress ROM: *Flexion to 180 º *ER at 90º abduction: 90º *IR at 90º abduction: progress to full	5th to 7th weeks after surgery ERN IR behind back Supine FF as tolerated. ER @ scapular plane Wall slide IR behind back Horizontal adduction 9th week Sidelying IR @ 90º Hands behind head starts 9th week postop Overhead pully	*Active-assisted arm elevation progressing to Active elevation with scapulohumeral rhythm. *Sub-max Isometric ER/IR *Rhythmic stabilization *Proprioceptive drills *Dynamic exercises Sidelying ER Sidelying scaption Prone row Prone T Prone extension Prone scaption Week 8-10: Standing scaption	No resisted ex Avoid exercises in coronal plane ABDuction

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Post-op Phase		Range of Motion	Therapeutic Exercise		Precautions
Phase 3 12 to 18 weeks after surgery Goals: *Progressive rotator cuff strengthening and scapular stability *Progressive functional training		Attain and maintain full ROM	ER at 90º abduction stretch ER @ 0º Wall slide IR behind back Horizontal adduction Hands behind head Sidelying IR @ 90º abduction	*Theraband exercises: ER, IR, forward, punch, shrug, dynamic hug, 'W's, biceps curl, seated row *Dynamic exercises: Continue from phase 2; limit resistance to maximum 3 lb. *Propriocetion drills *Scapulohumeral Rhythm exercises	Continue same as above. No weight training.

Post-op Phase	Stretching Exercises	Strengthening exercises	Return to Sports	Precautions
Phase 4 18- 26 weeks after surgery	Continue previous stretches	Continue dynamic exercises and theraband exercises from phase 3 Optional: Theraband: add 'T's, diagonal up and down Add Prone'U's	Per surgeon	Weight training per surgeon. See weight training precautions. Continue to avoid excessive force on the shoulder
Phase 5 26 weeks after surgery onward	Continue all previous stretches	Continue above Plyometric exercises: *Add rebounder throws with weighted ball, *Decelerations *wall dribbles at 90º, *wall dribble circles	Interval sports programs can begin per MD	Weight training precautions.

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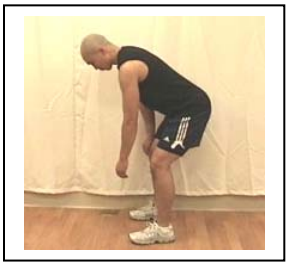
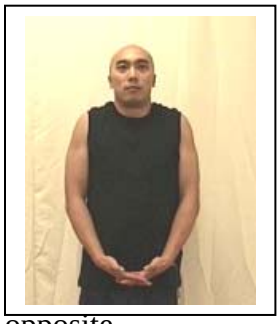
Shoulder Exercises for Rotator Cuff and SLAP Repair Rehabilitation Protocol

The exercises illustrated and described in this document should be performed only after instruction by your physical therapist or doctor.



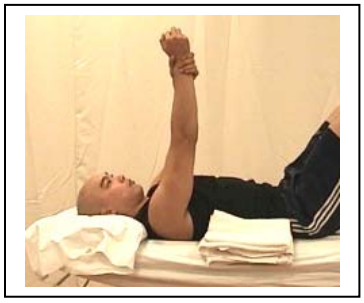
Pendulum exercise
Bend over at the waist and let the arm hang down. Using your body to initiate movement, swing the arm gently forward and backward and in a circular motion.



Shoulder shrug
Shrug shoulders upward as illustrated.

Shoulder blade pinches
Pinch shoulder blades backward and together, as illustrated.

Supine passive arm elevation
Lie on your back. Hold the affected arm at the wrist with the opposite hand. Using the strength of the opposite arm, lift the affected arm upward, as if to bring the arm overhead, slowly lower the arm back to the bed.



Supine external rotation
Lie on your back. Keep the elbow of the affected arm against your side with the elbow bent at 90 degrees. Using a cane or long stick in the opposite hand, push against the hand of the affected arm so that the affected arm rotates outward. Hold 10 seconds, relax and repeat.

Behind-the-back internal rotation
Sitting in a chair or standing, place the hand of the operated arm behind your back at the waistline. Use your opposite hand, as illustrated, to help the other hand higher toward the shoulder blade. Hold 10 seconds, relax and repeat.

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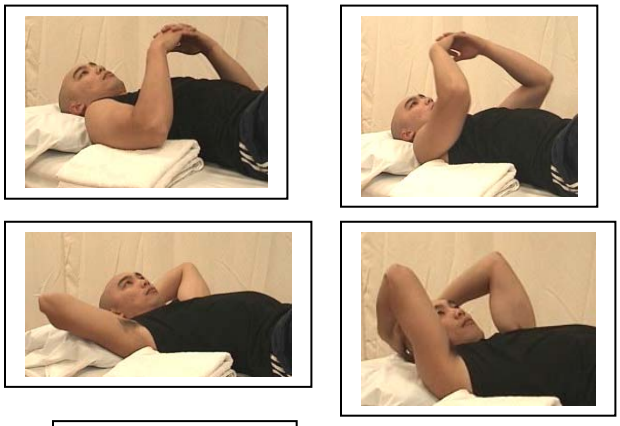
Hand-behind-the-head stretch

Lie on your back. Clasp your hands and place your hands behind your head with the elbows facing forward. Slowly lower the elbows to the side to stretch the shoulder outward. Hold for 10 seconds, and then return to the starting position.



Standing external rotation

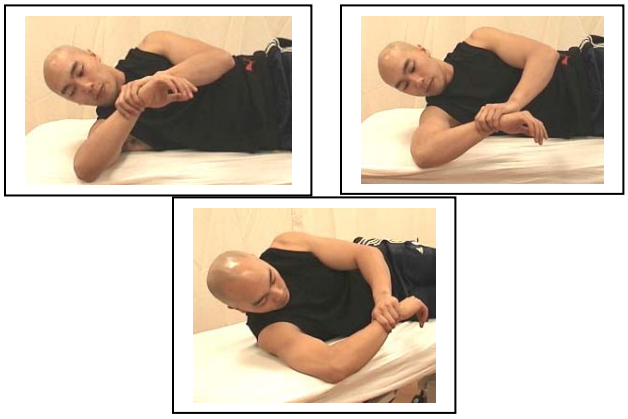
Stand in a doorway facing the doorframe or near the edge of a wall. With your hand against the wall or doorframe, keep the affected arm firmly against your side, and the elbow at a right (90 degree) angle. By moving your feet, rotate your body away from the door or wall to produce outward rotation at the shoulder.

Supine cross-chest stretch

Lying on your back, hold the elbow of the operated arm with the opposite hand. Gently stretch the elbow toward the opposite shoulder. Hold for 10 seconds.

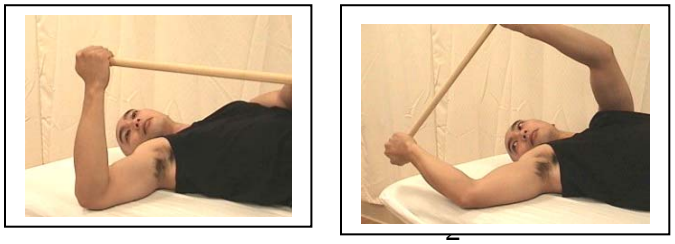
Sidelying internal rotation stretch

Lie on your side with the arm positioned so that the arm is at a right angle to the body and the elbow bent at a 90º angle. Keeping the elbow at a right angle, rotate the arm forward as if to touch the thumb to the table. Apply a gentle stretch with the opposite arm. Hold 10 to 15 seconds.



External rotation at 90º abduction stretch

Lie on your back. Support the upper arm, if needed, with towels or a small pillow. Keep arm at 90 degrees to the body and the elbow bent at 90 degrees. Using a stick and the opposite arm, stretch as if to bring the thumb to the corner of the table adjacent to your ear. Hold for 10 seconds, and then return to the starting position



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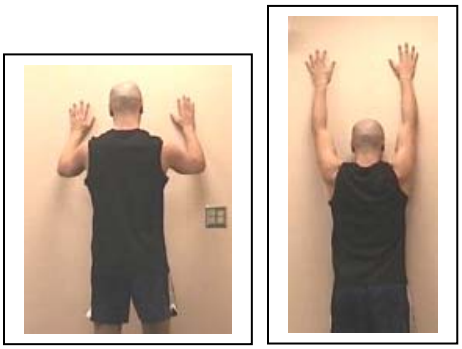
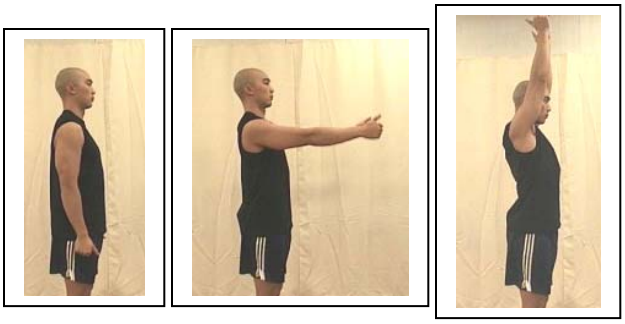


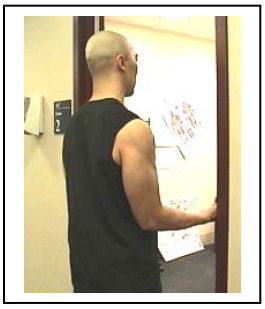
Wall slide stretch
Stand facing a wall; place the hands of both arms on the wall. Slide the hands and arms upward. As you are able to stretch the hand and arm higher, you should move your body closer to the wall. Hold 10 seconds, lower the arm by pressing the hand into the wall and letting it slide slowly down.

Seated/Standing Forward Elevation (Overhead Elbow Lift)
During this phase, you can stand or sit in a chair. If it is easier, begin lying on your back until you achieve maximal motion, then use the standing or seated position. Assume an upright position with erect posture, looking straight ahead. Place your hands on either thigh with the operated thumb facing up and your elbow straight. In the beginning, this stretch is not performed solely with the operated arm, but uses the uninjured hand for assistance going up and coming down. As you become stronger, you can raise and lower your arm without assistance. The operated arm should be lifted as high as possible, or to your end-point of pain. Try to raise the arm by hinging at the shoulder as opposed to raising the arm with the shoulder blade.



Standing forward flexion
Stand facing a mirror with the hands rotated so that the thumbs face forward. Raise the arm upward keeping the elbow straight. Try to raise the arm by hinging at the shoulder as opposed to raising the arm with the shoulder blade. Do 10 repetitions to 90 degrees. If you can do this without hiking the shoulder blade, do 10 repetitions fully overhead.

Isometric internal and external rotation
Stand facing a doorjamb or the corner of a wall.
Keep the elbow tight against your side and hold the forearm at a right angle to the arm. For internal rotation, place the palm against the wall with the thumb facing up. For external rotation, place the back of the hand against the wall with the thumb facing up.
Pull or push against the wall and hold for 5 seconds



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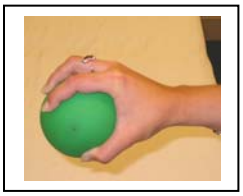
Ball squeeze exercises

Holding a rubber ball or tennis ball, squeeze the ball and hold for 5 seconds



Prone rowing

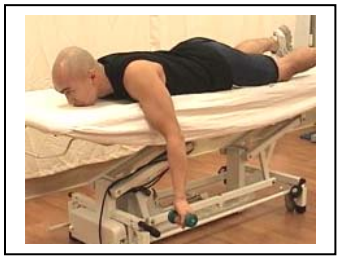
The starting position for this exercise is to bend over at the waist so that the affected arm is hanging freely straight down. Alternatively, lie face down on your bed with the operated arm hanging freely off of the side. While keeping the shoulder blade 'set', raise the arm up toward the ceiling while bending at the elbow. The elbow should be drawn along the side of the body until the hands touch the lower ribs. Always return slowly to the start position.

Prone horizontal abduction ('T's)

The starting position for this exercise is to bend over at the waist so that the affected arm is hanging freely straight down. Alternatively, lie face down on your bed with the operated arm hanging freely off of the side. Rotate your hand so that the thumb faces forward. While keeping the shoulder blade 'set' and keeping the elbows straight, slowly raise your arm away from your body to shoulder height, through a pain-free range of motion (so that your hand now has the thumb facing forward, and aligned with your cheek). Hold that position for 1 to 2 seconds and slowly lower. Limit the height that you raise the arm to 90 degrees, or in other words, horizontal to the floor.

Prone horizontal abduction with external rotation

The starting position for this exercise is to bend over at the waist so that the affected arm is hanging freely straight down. Alternatively, lie face down on your bed with the operated arm hanging freely off of the side. Rotate your hand so that the thumb faces outward. While keeping the shoulder blade 'set' and keeping the elbows straight, slowly raise your arm away from your body to shoulder height, through a pain-free range of motion (so that your hand now has the thumb facing forward, and aligned with your cheek). Hold that position for 1 to 2 seconds and slowly lower. Limit the height that you raise the arm to 90 degrees, or in other words, horizontal to the floor.



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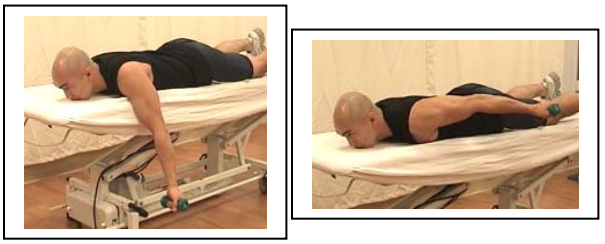
Prone scaption ('Y's)

The starting position for this exercise is to bend over at the waist so that the affected arm is hanging freely straight down.
Alternatively, lie face down on your bed with the operated arm hanging freely off of the side. Keep the shoulder blade 'set' and keep the elbows straight. Slowly raise the arm away from your body and slightly forward through a pain-free range of motion (so that your hand now has the thumb facing up, and is aligned with your forehead). Hold that position for 1 to 2 seconds and slowly lower. Limit the height that you raise the arm to 90 degrees, or in other words, horizontal to the floor.

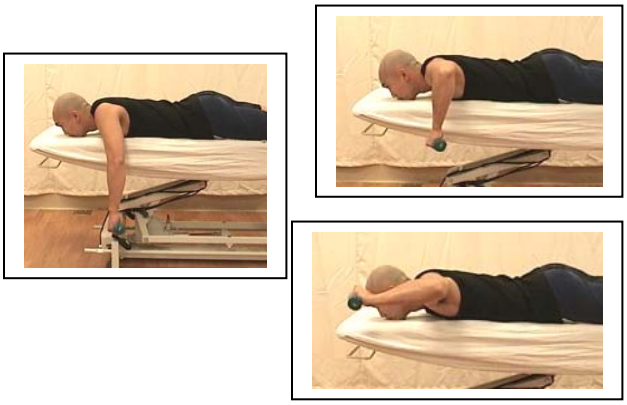
Prone extension

The starting position for this exercise is to bend over at the waist so that the affected arm is hanging freely straight down. Alternatively, lie face down on your bed with the operated arm hanging freely off of the side. While keeping the shoulder blade 'set' and keeping the elbow straight, raise the arm backward toward your hip with the thumb pointing outward. Do not lift your hand past the level of your hip.



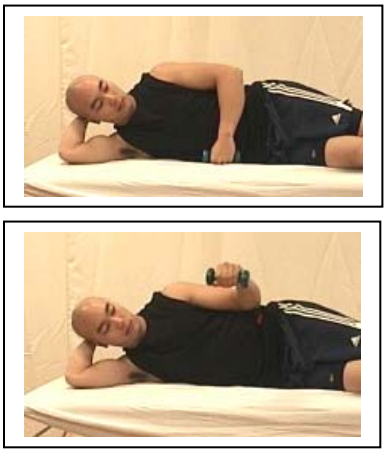
Prone external rotation at 90 º Abduction

Lie face down on a table with your arm hanging over the side of the table. Raise the arm to shoulder height at a 90º angle to the body. While holding the arm in this position, rotate the hand upward, until the hand is even with the elbow. Hold one second and slowly let the hand rotate to the starting position and repeat.



Sidelying external rotation

Lying on the non-operated side, bend your elbow to a 90-degree angle and keep the operated arm firmly against your side with your hand resting on your abdomen. By rotation at the shoulder, raise your hand upward, toward the ceiling through a comfortable range of motion. Hold this position for 1 to 2 seconds, and then slowly lower the hand.



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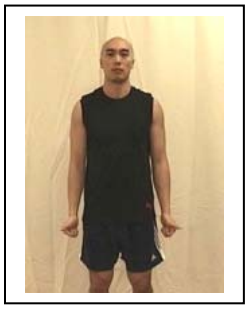
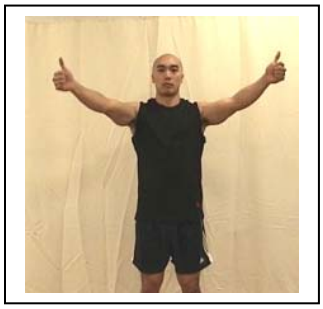
Standing forward flexion ('full-can') exercise

Stand facing a mirror with the hands rotated so that the thumbs face forward. While keeping the shoulder blade 'set' and keeping the elbows straight, raise the arms forward and upward to shoulder level with a slight outward angle (30°). Pause for one second and slowly lower and repeat.

Lateral Raises

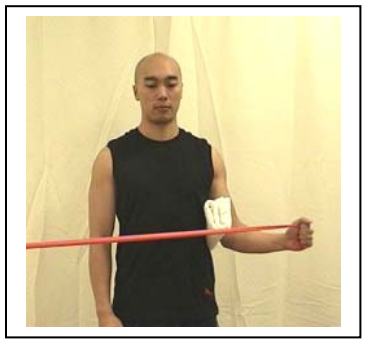
Stand with the arm at your side with the elbow straight and the hands rotated so that the thumbs face forward. Raise the arm straight out to the side, palm down, until the hands reach shoulder level. Do not raise the hands higher than the shoulder. Pause and slowly lower the arm.


Theraband Strengthening

These resistance exercises should be done very slowly in both directions. We want to strengthen you throughout the full range of motion and it is very important that these exercises be done very slowly, not only when you complete the exercise (concentric), but also as you come back to the start position (eccentric). The slower the motion, the more maximal the contraction throughout a full range of motion.

External Rotation

Attach the theraband at waist level in a doorjamb or other. While standing sideways to the door and looking straight ahead, grasp one end of the band and pull the band all the way through until it is taut. Feet are shoulder width apart and the knees are slightly flexed. The elbow is placed next to the side with the hand as close to your chest as possible (think of this elbow as being a hinge on a gate). Taking the cord in the hand, move the hand away from the body as far as it feels comfortable. Return to the start position.

Internal Rotation

Attach the Theraband at waist level in a doorjamb or other. While standing sideways to the door and looking straight ahead, grasp one end of the handle and pull the cord all the way through until it is taut. Feet are shoulder width apart and the knees are slightly flexed. The elbow is placed next to the side and is flexed at 90 degrees (think of this elbow as being a hinge on a gate). Taking the cord in the hand, move the hand toward the chest as far as it feels comfortable. Return to the start position.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Shoulder Shrug

Stand on the theraband with your feet at should width apart and look straight ahead. Next, straighten up, keeping the knees slightly flexed, with your arms straight down at the sides (palms in). Slowly raise the shoulders in a shrug (toward the ears), then rotate the shoulders backward in a circular motion, and finally down to the original position. This movement is completed while keeping constant tension on the cord.

Seated / Standing Row

Attach the theraband in a doorjamb or other. Sit or stand facing the door. Use a wide flat—footed stance and keep your back straight. Begin with the arms slightly flexed, hands together at waist level in front of your body, thumbs pointing upward, and with the cord taut. You are producing a rowing motion. Pull the cord all the way toward the chest. While pulling the cord, the elbows should be drawn along the side of the body until the hands touch the lower ribs. Always return slowly to the start position.

Standing Forward Punch

Attach the theraband at waist level in the doorjamb. Facing away from the door, stand in a boxing position with one leg ahead of the other (stride position). Do not bend at the waist and remain in an upright position. If the right shoulder is the injured extremity, you will want to grasp the handle in the right hand and step out until the cord is taut. If you use the right hand, the left foot should be forward in the stride position. Begin with your right arm at waist level and bend the elbow at a 90 degree angle, with the elbow remaining near your side. Slowly punch forward while slightly raising the right arm in a forward, upward punching motion. The hand should reach approximately neck level with the right arm almost straight.

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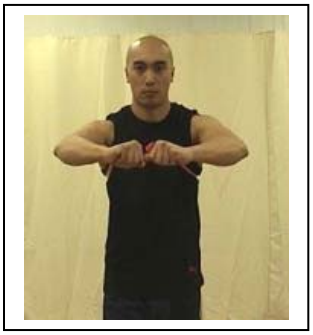
Biceps Curls

Place your feet on the cord, shoulder width apart, knees slightly bent. Keeping your elbows close to the sides of your body, slowly bend the arm at the elbow and curl towards the shoulder.

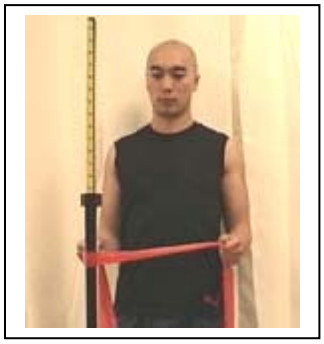

Dynamic Hug

With the tubing attach behind you at shoulder height, grip both ends of the tubing in your hands with the tubing on the outside of your shoulders. Pull the band forward and slightly downward in a 'hugging' motion, or as if you were wrapping both arm around a small tree. Pause and return slowly to the starting position.

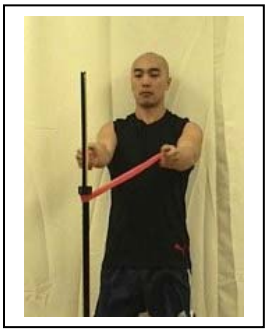
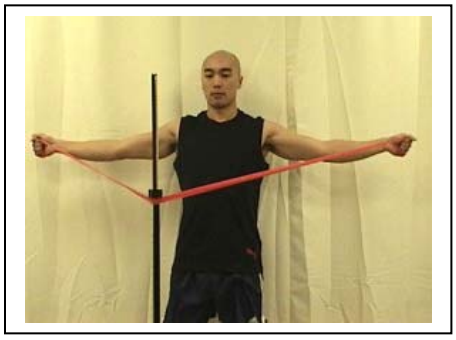
'W's

With the tubing attached in front of you, stand with the tubing in both hands with the elbows bent at 90º and fixed at your side. Pull the band outward, keeping the elbow at your side. The arms rotate outward making the shape of a 'W'.



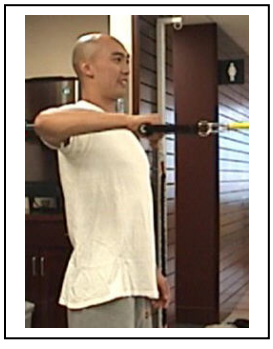
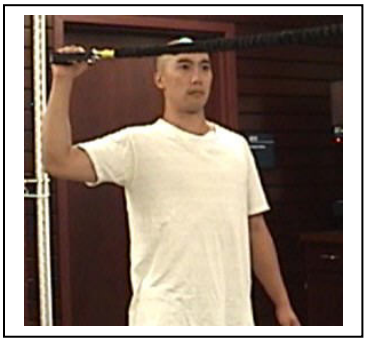

Standing 'T's.

Stand with the theraband attached in front of you. Stand with the arm flexed forward at shoulder height with the elbow straight. While keeping the elbow straight, pull the arm toward the rear until the arm is by your side.

Theraband external rotation at 90º.

Stand with the theraband attached in front of you. Keeping the arm elevated to 90 degrees and the elbow at a 90-degree angle, rotate the hand and arm slowly backward and then return slowly to the start position.

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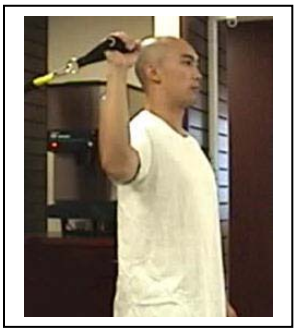
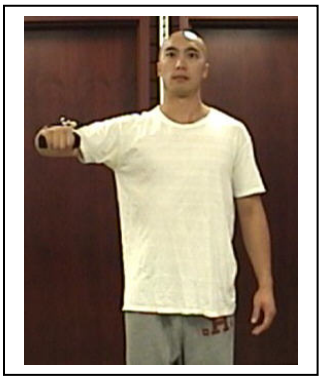
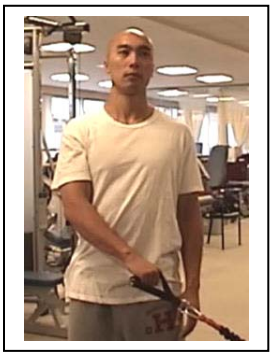
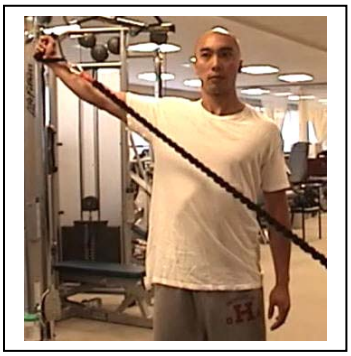
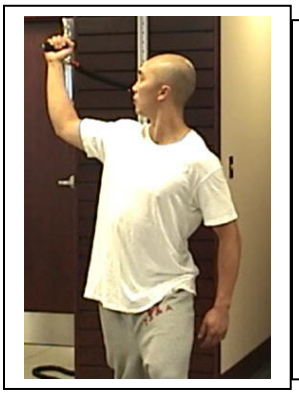
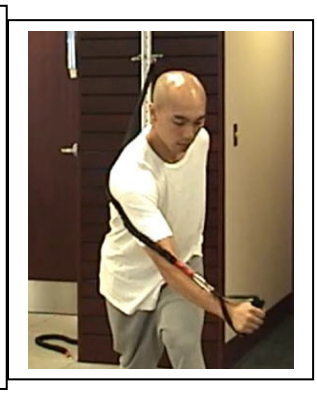



Theraband internal rotation at 90º.
Stand with the theraband attached behind you. Keeping the arm elevated to 90 degrees and the elbow at a 90-degree angle, rotate the hand and arm slowly forward and then return slowly to the start position.

Theraband diagonal-up
Stand with the theraband attached on your left side for your right hand. Start with your right hand on the left hip with the thumb facing the hip. Start by pulling the band so that your hand travels up and behind your head.

Theraband diagonal-down
Stand with the theraband attached behind you at shoulder level. Start with your arm in throwing position. Pull the band down and across your body so that your thumb faces the opposite hip.