SHOULDER INSTABILITY - DISLOCATION AND SUBLUXATION

THE INJURY

The shoulder joint is a ball and socket joint that connects the bone of the upper arm (humerus) with the shoulder blade (scapula). The shallow socket in the scapula is the glenoid cavity. The capsule is a broad ligament that surrounds and stabilizes the joint. The glenoid labrum is a rim of cartilage attached to the glenoid rim. If the arm is pulled out of its socket, the capsule and labrum tear, usually from the rim of the glenoid cavity. A dislocation occurs when the humerus comes completely out of the socket and stays out. A subluxation occurs when the humerus comes partly out of the socket and then slips back in.

When the capsule tears from the glenoid rim, the shoulder can become unstable and dislocate or subluxate repeatedly. The most common direction for the humeral head to dislocate is toward the front of the body (anteriorly); this typically occurs if the arm goes too far behind the body when the arm is in an overhead position (such as when throwing a ball). The humeral head can also dislocate toward the back of the body (posteriorly) when force is directed toward the back of the shoulder; this can occur when falling forward on an outstretched arm or blocking with the arm straight ahead in football.

DIAGNOSIS OF SHOULDER INSTABILITY

The direction of shoulder dislocation or subluxation can usually be made by physical examination. It is possible for the shoulder to be unstable in more than one direction. Multidirectional instability is more common in loose-jointed (double jointed) individuals.

If the diagnosis of instability or its direction is in doubt, additional tests that can be helpful are:
- magnetic resonance imaging (MRI) or computed tomography (CT)
- MRI or CT scan can be performed after dye is injected into the shoulder joint (arthro MRI or arthro CT)
- examination under anesthesia followed by arthroscopy.
TREATMENT OF SHOULDER INSTABILITY

Some patients who dislocate their shoulder do well after the injury and do not have recurrent instability. They tend to be older in age and not active in sports. Young people, especially athletes, are prone to have recurrent dislocations and subluxations and usually need surgery to correct the shoulder problem. The unstable shoulder joint can be repaired by reattaching the torn capsule to the glenoid rim. This is called a Bankart repair. The repair is generally done through a minimally invasive approach called arthroscopic surgery. In some instances, an open procedure is performed in which the muscles are separated to expose the shoulder capsule. If the capsule is found to have torn away from the bone, three holes are made in the glenoid rim. Stitches are passed through each hole and through the capsule and tied, securing the capsule to the glenoid rim. The capsule heals back to the bony rim and prevents the shoulder from redislocating. It takes several months for the capsule to heal back to the bone. During this time, extremes of shoulder motion should be avoided so that the stitches are not torn.

RESULTS AND RISKS OF SURGERY

The success rate of the open Bankart repair is approximately 97%. The success rate of arthroscopic Bankart repair is similar. If there is a fracture of the glenoid rim (Bankart lesion) and a compression fracture of the humeral head (Hill-Sachs lesion), there is an increased risk of recurrent instability following repair. Two nerves are at risk during surgery since they are near the operative field, but they are rarely injured. As with any surgical procedure, there are potential risks. The incidence of infection is less than 0.5%. The shoulder can lose some motion after surgery, especially if the shoulder has to be significantly tightened because of excess laxity.
SHOULDER INSTABILITY
BANKART REPAIR and ANTERIOR STABILIZING PROCEDURES

PREOPERATIVE INSTRUCTIONS

Within one month before surgery - as indicated by your doctor.

- Preoperative office visit for history and physical examination and instructions
- Complete blood count (CBC)
- Electrocardiogram (EKG) if over the age of 40

Within several days before surgery

- Wash the shoulder and axilla 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.
- **HAVE 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

Surgery is performed in the Wang building at MGH and at the Orthopedic Ambulatory Surgery Center at Mass General West in Waltham.

- For surgery at MGH main campus in Boston: Report directly to the Surgical Day Care Unit on the **third** floor of the Wang Ambulatory Care Building 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.
Rehabilitation after Bankart Shoulder Repair and Anterior Stabilizing Procedures

Phase 0: 0 to 2 weeks after surgery

POSTOPERATIVE INSTRUCTIONS

You will wake up in the operating room. A sling and an ice pack will be in place. You will go to the recovery room and generally will be discharged after 1-2 hours. You can get out of bed when you wish. Apply ice to the shoulder to reduce pain and swelling. You may remove the sling whenever you wish and gently move the elbow, wrist and fingers. Follow the doctor’s instructions regarding moving your shoulder after surgery.

GOALS:
1. Control pain and swelling
2. Protect the repair
3. Begin early shoulder motion

ACTIVITIES WHEN YOU GO HOME:

1. Apply ice to the shoulder as tolerated to reduce pain and swelling. You can change the dressing to a smaller one to allow the cold therapy to reach the shoulder.
2. Remove the sling on the first day after surgery.
3. Move your elbow, fingers and hand several times a day.
4. Begin the pendulum exercise several times a day:

   **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. Repeat for 2 to 3 minutes at a time.

5. Remove the outer dressing on the second day after surgery and shower. Leave the little pieces of tape (steri-strips) in place. You can get the wound wet after 2 days in a shower, but do not soak in a tub. To wash under the operated arm, bend over at the waist and let the arm passively swing away from the body. It is safe to wash under the arm in this position.
6. Keep your elbow slightly in front of your body; **do not reach behind your body**. When putting on clothing, lean forward and pull the shirt up and over the operated arm first. Then put the other arm into the opposite sleeve. To remove the shirt, take the unoperated arm out of the sleeve first, and then slip the shirt off of the operated arm.
7. Call the doctor’s office for any concerns, including, but not limited to, severe pain, fevers, chills or redness.

OFFICE VISIT: Please arrange to see the doctor in the office 7-14 days after surgery for examination and further instructions.
Rehabilitation after Bankart Shoulder Repair and Anterior Stabilizing Procedures

Phase One: 2 to 5 weeks after surgery

Goals:

1. Protect the repair
2. Ensure wound healing
3. Prevent shoulder stiffness

Activities:

1. **Sling**
   Use your sling as instructed by your doctor. You may remove it whenever you wish if you are careful and keep the shoulder safe. Put the sling on when you are outside or in a crowd. Keep the sling on when sleeping at night for the first three or four weeks.

2. **Use of the operated arm**
   You may use your hand on the operated arm as long as you do not rotate the arm externally or away from your body. You should bend your arm at the elbow and use your fingers and hand, such as to reach up and touch your face. Keep your elbow in front of you.

3. **Bathing and showering**
   You may shower or bath and wash the incision area. To wash under the operated arm, bend over at the waist and let the arm passively swing away from the body. It is safe to wash under the arm in this position. This is the same position as the pendulum exercise. **Do not** submerge the incisions under water.

**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:**

**Range of Motion**
- Pendulum exercises
- Supine External Rotation
  - Weeks 1 and 2: limit to 0 degrees (straight up)
  - Weeks 3 to 6: limit to 30 degrees.
- Supine forward arm elevation.
- Starting at 3rd week after surgery:
  - Behind the back internal rotation.

**Strengthening exercises**
- Isometric exercises:
  - Internal and external rotation at neutral.
  - Prone row
  - Prone extension (do not extend past hip)
  - Side-lying external rotation
  - Rhythmic stabilization and proprioceptive training drills with physical therapist.
  - Ball squeeze exercise.

Call 617-726-7500 to reach your doctor; 617-643-9999 to reach MGH Sports Physical Therapy.
Rehabilitation after Bankart Shoulder Repair and Anterior Stabilizing Procedures

Phase Two: 5 to 8 weeks after surgery

Goals:

1. Protect the shoulder and avoid overstressing the repair
2. Improve range of motion of the shoulder
3. Begin strengthening exercises

Activities:

1. **Sling**
The sling is no longer necessary.
2. **Use of the operated arm**
You may now use your arm. Avoid having the arm forcefully pulled behind you.
Continue to avoid heavy weight lifting or manual labor. Follow any further instructions given to you by your doctor.
3. **Precautions**
Do not lift objects overhead with the weight of the object going behind the head. In other words, keep objects in front of you where you can see them.
4. **Ice**
Use ice or cold as necessary 15-20 minutes.

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Call 617-726-7500 to reach your doctor; 617-643-9999 to reach MGH Sports Physical Therapy
Rehabilitation after Bankart Shoulder Repair and Anterior Stabilizing Procedures

Phase Three: 8 to 12 weeks after surgery

Goals:
1. Protect the shoulder repair
2. Regain full range of motion
3. Continue gentle strengthening

Activities:
2. Use of the operated arm
   You may now use your arm in a more normal fashion. You may move the arm into all positions including external rotation and behind the back if it is comfortable. Avoid having the arm forcefully pulled behind you. Continue to avoid heavy weight lifting or manual labor. Follow any further instructions given to you by your doctor.
3. Precautions
   Do not lift heavy weights overhead with the weight going behind the head. In other words, keep the weights in front of you where you can see them.

Exercise Program:

STRETCHING / RANGE of MOTION
Days per week: 7  Times per day: 1-2
Pendulum exercises
Standing external rotation /doorway
Wall slide stretch
Hands-behind-head stretch
   (Starting the 9th week after surgery)
Behind the back internal rotation
Supine cross-chest stretch
Sidelying internal rotation

STRENGTHENING / DYNAMIC
Days per week: 7  Times per day: 1
Side-lying external rotation
Prone horizontal abduction ‘T’ s
Prone scaption “Y” s
Prone row
Prone extension
Standing scaption “full-can” exercise
Rhythmic stabilization and proprioceptive training drills with physical therapist

STRENGTHENING / THERABAND
Days per week: 7  Times per day: 1
External rotation
Internal rotation
Standing forward punch
Shoulder shrug
Dynamic hug
“W” s
Seated row

Call 617-726-7500 to reach your doctor; 617-643-9999 for your physical therapist
Rehabilitation after Bankart Shoulder Repair and Anterior Stabilizing Procedures

Phase Four: 12 to 24 weeks after surgery

Goals:

1. Protect the ligament repair
2. Regain full range of motion
3. Continue strengthening
4. Gradual return to full activity

Activities:

Use the arm for normal daily activities. There is no restriction on your range of motion unless exceptions are outlined in your discussions with your doctor. Weight training can gradually resume with caution being paid to exercises such as bench press, incline press, dips, pull-downs behind the neck or other exercises where the hands are repeatedly placed behind you. If you are returning to contact sports, you should wait until six months after surgery.

Exercise Program

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Continue exercises from phase 3
Optional exercises:
External rotation at 90°
Internal rotation at 90°
Standing ‘T’ s
Diagonal up
Diagonal down

Call 617-726-7500 to reach your doctor; 617-643-9999 for your physical therapist
Rehabilitation after Bankart Shoulder Repair and Anterior Stabilizing Procedures

Phase Five: 24 weeks after surgery onward

Goals:
- Enhance muscular strength, power and endurance
- Progress functional activities
- Maintain shoulder mobility

Exercise Program

STRETCHING / RANGE OF MOTION
Times per day: 1  Days: 5-7
Continue exercises from previous phases

STRENGTHENING / THERABAND
Times per day: 1  Days per week: 3
Continue exercises from previous phases

STRENGTHENING / DYNAMIC
Times per day: 1  Days per week: 3
Continue exercises from previous phases

PLYOMETRIC PROGRAM
See attached plyometric program.

WEIGHT TRAINING
See weight training precautions section

INTERVAL SPORTS PROGRAMS
Continue with clearance from your doctor.

Call 617-726-7500 to reach your doctor; 617-643-9999 for your physical therapist
Guidelines for Returning to Weight Training
After Arthroscopic Labrum Repair

You should not return to training using heavy weights or on weight machines until your doctor determines that it is safe.
In general, it is usually safe to return to heavier weight training at three months following labrum repair.

Before embarking on a weight-training program, you should have full range of shoulder motion and normal strength in the rotator cuff and scapular muscles. The doctor or a physical therapist will test your motion and strength before you start weight training.

When starting your weight-training program, you can start with 3 sets of 15-20 repetitions. Training with high repetition sets ensures that the weights that you are using are not too heavy.

NEVER perform any weight training exercise to the point of muscle failure. “Muscle failure” occurs when, in performing a weight training exercise, the muscle is no longer able to provide the energy necessary to contract and move the joint(s) involved in the particular exercise. Joint, muscle and tendon injuries are more likely to occur when muscle failure occurs.

The following weight training exercises should be avoided after Bankart repair for shoulder instability:
1. Pull downs behind-the-neck (wide-grip)
2. Behind-the-neck shoulder press
3. Wide-grip bench press
4. Standing lateral deltoid raises
5. Triceps press overhead

The following exercises require special cautions:
1. Pull downs should only be done in front of the head, to the chest, with a medium(not wide) grip.
2. Shoulder press overhead should be done carefully, avoiding heavy weights. If doing shoulder presses, always start with the hand in front of the shoulder and end overhead where you can still see your hand. For persons using barbells, this is the “military press”.
3. If bench pressing, your grip should be no wider than the wider than the width of your shoulders. Avoid any exercises using grips wider or narrower than shoulder width.
4. Lateral deltoid raises should be avoided because of the impinging and wearing effect on the rotator cuff. Forward raises in the “thumb-up” position are usually safer and can be done with reasonable weights. Lateral raises from the prone or bent over position can be done as a substitute for standing lateral deltoid raises.
5. When doing incline bench press with barbells, there is a danger of shoulder dislocation if the lifter loses control of the bar when returning the barbell to the rack of the incline bench. Always have a spotter for removing and replacing the barbell in this exercise.
6. If you are doing any type of “chest-fly”, keep in mind the following precautions. Do not do any chest-fly exercise with straight elbows. Always allow the elbows to bend and never lower your hands (holding dumbbells) below the level of your chest.
7. If you are using a “Pec-Deck” machine, never let the weight stretch the arms so that your elbows pass behind your chin. You can set the arms on this machine a few clicks forward to adjust the maximum motion allowed.
8. If you are performing “dips” using a set of parallel bars, never lower yourself below the point where the elbows reach a 90-degree angle.
9. For triceps exercises, triceps pushdowns on a pulley system are safe as well as bent-over triceps extensions.
10. When doing the upright-rowing exercise, keep your grip at least 12 inches apart. When pulling the bar upward toward the chin, do not raise the bar higher than the point at which the elbow reaches shoulder level.

Exercises Usually Problem-Free
1. Biceps Curls
2. Cable and bent-over rowing
3. Shoulder shrugs

If your goal is returning to high-level weight training or weight lifting, it will take 3 to 6 months of cautious, gradual progression to return to top form. In general, avoid increasing the amount of weight lifted by more than 10-15% (at a time) of your present working weight every 10-14 days.

Remember: Weight training is beneficial to improve muscular strength and protect the joints from injury. If done improperly by using too much weight and/or improper technique, weight training can cause serious injury.
Shoulder Exercises for Bankart 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.

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.

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

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.

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 90° 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 90° 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.

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.

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.
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 ° 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 90° 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.
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.
Shoulder Shrug
Stand on the theraband with your feet at shoulder 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.
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.
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.
Shoulder Plyometric Program

Throw with arm at side
For the right arm, stand sideways so that your left side is facing a ‘rebounder’ or wall. Keep the right elbow tucked against your right side with the elbow at a right angle. Throw a 1 to 2 pound ball across the body, keeping the elbow tucked to the side, to the rebounder. Catch the rebounded ball in the same arm position, allowing the arm to comfortably stretch back, and then quickly throw the ball again. Do not pause or stop the ball movement after catching it.

Wall dribbles overhead
Stand facing a wall with your arm held comfortably overhead, above the shoulder joint. Quickly dribble a 1 to 2 pound ball against the wall using your fingertips.

Rebounder throwing
Stand facing a rebounder, with the arm raised in the throwing position. Throw a 1 to 2 pound ball and then catch the rebounded ball in the same throwing position. On the catch, allow the arm to comfortably rotate backward and the quickly throw the ball again. Do not pause or stop the ball movement after catching it.
Decelerations
Kneel on the floor on the knee on the same side of your throwing arm. Flip a 1 or 2 pound ball backwards over your throwing shoulder to a coach or partner standing behind you. Have the partner toss the ball so that you can catch the ball in the throwing position and then decelerate your arm forward through your throwing motion. Quickly flip the ball backward again and repeat.

Wall dribble 90’s
Stand facing the wall. Raise the arm into your throwing position. Keeping the elbow close to the wall, quickly bounce a 1 to 2 pound ball against the wall in this position. As you catch the ball, allow the arm to comfortably stretch back into external rotation. Quickly bounce the wall on the wall again. Do not pause or stop the ball movement after catching it.

Wall dribble circles
Stand facing the wall. Raise the arm into an overhead position. Keeping the elbow close to the wall, quickly bounce a 1 to 2 pound ball against the wall using your fingertips. Dribble the ball as you move your arm in an arc from above your head down to shoulder level and back.
# Rehabilitation after Bankart Repair and Anterior Stabilizing Procedures of the Shoulder

<table>
<thead>
<tr>
<th>Post-op phase</th>
<th>Range of Motion</th>
<th>Therapeutic Exercise</th>
<th>Precautions</th>
</tr>
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</table>
| **Phase 0**  | 0-2 weeks after surgery | **Goals:**  
*Allow healing of the repair.  
*Initiate early protected and restricted range of motion.  
*Minimize muscular atrophy.  
*Decrease pain/inflammation.  
**Weeks 0-2** | **Goals:**  
*Flexion 90-100  
*ERN limit 5-10º  
*ER/IR with arm in scapular plane at 40º abduction:  
ER to 15º  
IR to 45º  
**Pendulum exercise**  
**Active-assisted supine FF** as tolerated.  
**ERN as tolerated.**  
**Scapular retraction**  
**NO active ER or Extension or Abduction** | **Isometric exercise** at 0º of abduction  
**Ball squeezes**  
**Rhythmic stabilization (RS)**  
**Avoid ER in abduction.**  
**Caution to avoid excessive shoulder extension.** |
| **Phase 1** | 2-5 weeks after surgery | **Supine FF as tolerated**  
**ERN limit to 30º**  
**Weeks 3 and 4:**  
*Forward flexion as tolerated 135-140º  
*Abduction to 90º  
*ER in scapular plane to 30º  
*IR in scapular plane to 60º**  
**Active-assisted supine FF** as tolerated.  
**ERN as tolerated.**  
**Scapular retraction**  
**IR behind back starting week 3** | **Isometric exercise** at 0º of abduction  
**Ball squeezes**  
**Rhythmic stabilization**  
**Prone row**  
**Prone extension to hip**  
**Sidelying ER to neutral**  
**Avoid ER in abduction.**  
**ERN beyond 30º of Extension.** |
| **Phase 2** | 5 to 8 weeks after surgery | **Goals:**  
*Gradual increase in ROM  
*Improve strength  
*Decrease pain/inflammation  
**Weeks 5 and 6:**  
*Flexion to 145º to 160º  
*ER at 45º  
*IR at 45º  
*Abduction: 60º**  
**ERN**  
**IR behind back**  
**Supine FF as tolerated.**  
**Horizontal adduction**  
**Continue phase 1 exercises:**  
*Active-assisted progressing to active forward flexion with scapulohumeral rhythm  
Sidelying ER  
Sidelying scaption  
Prone row  
Prone extension  
Prone T  
Standing scaption  
Theraband ER/IR  
**Proprioception drills**  
**Gentle mid-range ER in POS, gradually progress to coronal plane.**  
**Cautiously improve E RN.** | **Avoid ER in abduction.**  
**ERN beyond 30º of Extension.** |
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<tr>
<td><strong>Phase 3</strong></td>
<td>Gradually improve ROM all planes</td>
<td>ER @ scapular plane wall slide</td>
<td>Continue same as above Avoid excessive extension, and ER</td>
</tr>
<tr>
<td>8-12 weeks after surgery</td>
<td>Weeks 7-9: Flexion to 160º Initiate ER/IR at 90º abduction</td>
<td>IR behind back horizontal adduction</td>
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<tr>
<td><em>Gradually restore full range of motion</em></td>
<td>Week 7: ER at 90 degrees abduction: 70º</td>
<td>Sidelying IR @ 90º</td>
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<tr>
<td><em>Increase strength</em></td>
<td>Weeks 8-9 ER to 80º at 90º abduction</td>
<td>Hands behind head starts 9th week postop</td>
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<tr>
<td><em>Improve neuromuscular control</em></td>
<td>IR at 90 º abduction: 70º</td>
<td>Overhead pulley</td>
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<tr>
<td><em>Enhance proprioception and kinesthesia</em></td>
<td>Weeks 10-14: Progress ROM to full</td>
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**Post-op Phase**

<table>
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<tr>
<th>Phase 4</th>
<th>Gradually stretch to full ROM ER @90 stretch</th>
<th>*Weight training can begin *Continue theraband and dynamic strengthening programs *Push-up progression *Plyometric exercises</th>
<th>Initiate interval sport program per MD plan</th>
<th>See weight training precautions. Continue to avoid excessive or forceful extension and ER</th>
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<td>12-24 weeks after surgery</td>
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<tr>
<td><strong>Goals:</strong></td>
<td>Maintain full ROM Improve muscular strength, power and endurance Gradually initiate functional activities</td>
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**Phase 5**

| 24 weeks after surgery onward | Full ROM | Progress interval sport programs Continue to observe precautions Full return to sports gradually | Usually all sports | Weight training precautions. Shoulder brace sometimes for collision sports. |
| **Goals:** | Maintain shoulder mobility Build muscular strength, power and endurance Progress functional activities Gradual return to sport activities | | | |