

Shoulder Instability (Bankart)

The shoulder joint is comprised of the humerus and glenoid socket. The large head and small socket gives the shoulder joint excellent range of motion. This range of motion however comes at the cost of stability (it takes only a strong breeze to blow the golf ball off the T). A traumatic external force such as a football tackle may cause the shoulder joint to dislocate or subluxate(almost dislocate).

The labrum is a cartilaginous structure that acts as a bumper or lip to maintain the shoulder joint in place. A dislocation will tear the labrum off the glenoid surface and stretch associated ligaments. This type of labral tear is called a “Bankart tear”.

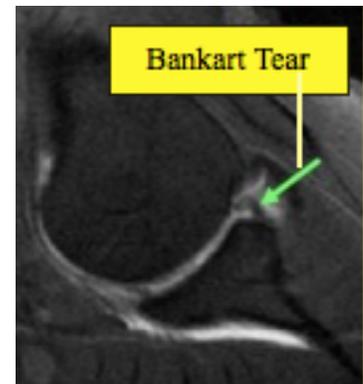
After the first dislocation the patient is at an increased risk for subsequent dislocations. The events that cause further dislocations need not be as forceful as the original. Imagine trying to balance a golf ball on a T that only had half of its top in place. Simple activities such as moving in bed or putting on a book bag may cause shoulder subluxation or dislocation. In order to return stability to the shoulder joint, the labrum should be reattached and the supporting ligaments tensioned.



Diagnosis of a Bankart Tear:

The patient with a labral tear often reports multiple shoulder dislocations from low velocity activities as described above. Patients report a feeling of apprehension with certain shoulder movements such as lifting the arm overhead or throwing a ball. Labral tears and ligament laxity are diagnosed by reviewing the shoulder history and participating in a physical examination. X-rays looking for associated trauma to the shoulder joint and MRI to examine the condition of the labrum are often utilized to aid in the diagnosis.

Conservative management may be utilized after the initial dislocation. This consists of very short term sling immobilization followed by physical therapy for shoulder joint strengthening. Surgical repair is the treatment of choice for the patient with multiple dislocations and an unstable shoulder joint. Without surgical intervention, the torn labrum and stretched ligaments are unlikely to heal properly and provide for a stable shoulder joint. The surgical repair is conducted utilizing arthroscopic equipment. This means that a small camera and small equipment will be used through tiny incisions. Anchors attached with suture material are placed in the glenoid bone. The sutures are then passed through the labral tissue. A knot is tied which brings the labrum tightly against the bone reestablishing its natural position and ligament tension



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RESULTS AND RISKS OF SURGERY

The success rate of the open Bankart repair is approximately 95%. The success rate of arthroscopic Bankart repair can be similar, assuming there is little or no bone loss. If there is a fracture of the glenoid rim (Bankart fracture) 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. Recurrent instability can occur.

Surgery:

The length of an arthroscopic Bankart repair will take up to 1.5 hours depending on the complexity of the tear. Your nurse will bring you into the pre-op area where you will have an IV placed and met with your anesthesiologist. General anesthesia is utilized to assure a comfortable surgery. This means that you will be “asleep” and completely unaware of the surgery until you wake up in the recovery area. Most patients will have a small tube placed in their windpipe, formal intubation may not be required. Local blocks are also available to supplement pain control. Your anesthesiologist will discuss this with you prior to surgery. Like any surgical procedure, there are risks. These risks are extremely rare and consist of nerve injury, infection and shoulder stiffness or instability.

Post-Surgery:

After the surgery is completed, you will awaken in the operating room and be moved to the recovery area. Most patients generally recover smoothly and have minimal pain due to local pain medication that is used at the completion of the surgery. Family members and guests are permitted to visit in the recovery area once the patient is fully awake and feeling comfortable; this may take up to 2 hours after the surgery is completed.

- A pain medication prescription will be provided prior to discharge. You may take the prescribed medication as directed. You should expect to experience moderate shoulder discomfort for several days and even weeks following the surgery. Patients often only need prescription narcotics for a few days following surgery and then can switch to over-the-counter medications Tylenol or Ibuprofen. Ice should be applied to the shoulder up to three times a day for 20 minutes until swelling subsides
- At the completion of surgery, you will have a sling placed on your arm. Wear the sling at all times with the exception of exercises, showering and dressing. You may also remove the sling to participate in computer work or watching TV for instance. The purpose of the sling is to protect the labral repair. Excessive arm movement during the first few weeks of recovery may put unwarranted strain on the repair. Particularly avoid external rotation or rotation away from the body for at least 6 weeks.
- Special cooling devices (called Cryo/Cuffs) are also available for patients to purchase thru our office. This can be used in the place of the ice bags.
- If the bandage is draining, reinforce it with additional dressings for the first 48 hours. After 48 hours remove the bandage and place band aids over the incision sites. Showering is acceptable at this time. Do not scrub the shoulder.
- There is an exercise sheet at the end of this packet. Conduct exercises three times daily until further directions are provided. Physical therapy will start 4-6 weeks after surgery.
- Eat a regular diet as tolerated and please drink plenty of fluids.
- You are unable to drive a car as long as you need to utilize a sling.
- Call office for Temperature >102 degrees, excessive swelling, pain or redness around the incision sites.
- Plan at least a week away from work or school. Utilize this time to decrease swelling and participate in your home exercise program. You may be able to resume work (depending on type of work and setting; very variable) once the pain and swelling resolves.
- The above are guidelines and only intended as generalities.

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Rehabilitation after Bankart Shoulder Repair and Anterior Stabilizing

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 instructions on your discharge paperwork or refer to Dr. Nelson's website for further postoperative questions.

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. Move your elbow, fingers and hand several times per day.
3. Begin the pendulum exercise several times per 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.
4. 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.
5. 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 non-operative arm out of the sleeve first, and then slip the shirt off of the operated arm.
6. Call Dr. Nelson's office for any concerns, including, but not limited to, severe pain, fevers, chills or redness.

OFFICE VISIT: Please arrange to come back to Dr. Nelson's office 7-10 days after surgery for examination and further instructions.

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Rehabilitation after Bankart Shoulder Repair and Anterior Stabilizing Procedures

Phase 1: 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 Dr. Nelson. 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.

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: 3-4

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.

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Rehabilitation after Bankart Shoulder Repair and Anterior Stabilizing Procedures

Phase 2: 5 to 8 weeks after surgery

Goals:

1. Protect the shoulder and avoid over stressing 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. Use ice or cold as necessary 15-20 minutes.

STRETCHING / ACTIVE MOTION

Days per week: 7 Times per day: 1-3

Pendulum exercises

Supine External Rotation

Standing External Rotation

Week 5,6: limit to 30 degrees

Week 7,8: limit to 45 degrees

Supine passive arm elevation

Seated-standing forward arm elevation

Behind the back internal rotation

STRENGTHENING EXERCISES

Days per week: 7 Times per day: 1

Theraband internal and external rotation

Prone row

Prone horizontal abduction 'T's

Prone extension

Standing scaption

Side-lying external rotation

Rhythmic stabilization and proprioceptive training drills with physical therapist.

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Phase 3: 8 to 12 weeks after surgery

Goals:

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

Activities:

1. 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.
2. 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 / 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 / THERABAND

Daysperweek:7 Timesperday: 1

External rotation

Internal rotation

Standing forward punch

Shoulder shrug

Standing scaption “full-can” exercise

Rhythmic stabilization and proprioceptive training drills with physical therapist Dynamic hug, “W”’s,

Seated row, Biceps curl

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

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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

STRETCHING / MOTION

Times per day: 1 Days: 5-7
Standing External Rotation / Doorway
Wall slide Stretch
Hands-behind-head stretch
Behind the back internal rotation
Supine Cross-Chest Stretch
Sidelying internal rotation
External rotation at 90 Abduction stretch

STRENGTHENING/DYNAMIC

Times per day: 1 Days per week:3
Continue exercise from phase 3
Prone external rotation at 90 abd
Biceps curls
Resisted forearm sup/pronation
Resisted wrist flexion/extension
PNF manual resistance with PT
Push up progression

STRENGTHENING/THERABAND

Times per day: 1 Days per week: 3
Continue exercises from phase 3
Optional exercises:
External rotation at 90
Internal rotation at 90
Standing 'T's
Diagonal up / down

PLYOMETIC PROGRAM

May begin with clearance from PT

WEIGHT TRAINING

See weight training program section

INTERVAL SPORTS PROGRAMS

May begin with clearance from
Dr. Nelson.

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Guidelines for Returning to Weight Training After Arthroscopic Labrum Repair

You should not return to training using heavy weights or on weight machines until Dr. Nelson determines that it is safe. In general, it is usually safe to return to heavier weight training at 3-4 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. Dr. Nelson 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 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.

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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.

Return to Activities

Computer	After 2 weeks
Golf	8 weeks (chip & putt only)
Tennis	12 weeks (no overhead)
Contact Sports	4 months

Dr. Nelson's Bankart Repair Rehabilitation Protocol

Diagnosis:														
Procedure date:	S/P:													
	WEEK										MONTH			
	1	2	3	4	5	6	7	8	9	10	3	4	5	6
PHASE 0 EXERCISES														
Pendulum	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PHASE 1 EXERCISES														
Supine external rotation (neutral weeks 1 and 2)	•	•												
Supine external rotation (30 degrees weeks 3-6)			•	•	•	•								
Supine forward elevation			•	•	•	•	•	•	•	•				
Behind the back internal rotation			•	•	•	•	•	•	•	•				
Strengthening														
Isometrics (internal rotation neutral, prone row, prone extension, lying external rotation, ball squeeze)			•	•	•	•	•	•	•	•				
PHASE 2 (weeks 5-8)														
Supine external rotation 30 degrees week 5,6					•	•								
Supine external rotation 45 degrees week 7,8							•	•						
Supine passive arm elevation					•	•	•	•	•	•				
Behind the back internal rotation					•	•	•	•	•	•				
Strengthening														
Theraband light (internal and external rotation)					•	•	•	•	•	•				
Prone row					•	•	•	•	•	•				
Prone horizontal abduction "T's"					•	•	•	•	•	•				
Prone extension					•	•	•	•	•	•				
Standing Scaption					•	•	•	•	•	•				
side lying external rotation					•	•	•	•	•	•				
Rhythmic stabilization and proprioceptive drills					•	•	•	•	•	•				
PHASE 3 (weeks 8-12) continue previous plus														
External rotation stretch								•	•	•				
Wall slide stretch								•	•	•				
Hands behind head stretch								•	•	•				
Sleeper Stretch								•	•	•				
PHASE 3 strengthening/Theraband														
External rotation								•	•	•				
Internal rotation								•	•	•				
Standing forward punch								•	•	•				
Shoulder srug								•	•	•				
Scaption								•	•	•				
dynamic hug, "W's", seated row, biceps curl								•	•	•				
Side lying external rotation, prone horizontal abduction "T's" and "Y's"								•	•	•				
PHASE 4 HIGH LEVEL EXERCISES (12-24 weeks)														
Continue stretches												•	•	•
Strengthening (continue phase three plus)														
Prone external rotation at 90 abduction												•	•	•
Beceps curls												•	•	•
Resisted forarm sup/pronation												•	•	•
Resisted wrist flexion/extension												•	•	•
PNF manual resistance with PT												•	•	•
Progress weight training												•	•	•
Progress interval sports program													•	•
Return to play typically 5-6 months														
Additional Instructions:														