Reverse TSA Rehabilitation Protocol

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These guidelines should be tailored to individual patients based on their rehab goals, age, precautions, quality of repair, etc. Progression should be based on patient progress and approval by the referring physician.

Phase I: Day 1 through Week 2

GENERAL GUIDELINES AND PRECAUTIONS

- Sling wear 24/7 except during grooming and home exercises (3 to 5 times daily)
- Avoid shoulder extension such that the arm is posterior the frontal plane. When patients recline, a pillow should be placed behind the upper arm and sling should be on. They should be advised to always be able to see the elbow
- Avoid combined IR/ADD/EXT, such as hand behind back to prevent dislocation
- Avoid combined IR and ADD such as reaching across the chest to prevent dislocation
- No AROM
- No submersion in pool/water for 4 weeks
- No weight bearing through operative arm (as in transfers, walker use, etc…)

GOALS

- Maintain integrity of joint replacement; protect soft tissue healing
- Increase PROM for elevation to 120 and ER to 30 (will remain the goal for first 6 weeks)
- Optimize distal UE circulation and muscle activity (elbow, wrist and hand)
- Instruct in use of sling for proper fit, polar care device for ice application after HEP, signs/symptoms of infection

EXERCISES

- Active elbow, wrist and hand
- Passive forward elevation in scapular plane to 90-120 max motion; ER in scapular plane to 30
- Active scapular retraction with arms resting in neutral position

CRITERIA TO PROGRESS TO PHASE 2

- Low pain (less than 3/10) with shoulder PROM
- Healing of incision without signs of infection
- Clearance by MD to advance after 2-week MD check up

Phase II: Weeks 2-6

GENERAL GUIDELINES AND PRECAUTIONS

- Sling may be removed while at home/controlled environment; worn in community without abduction pillow as a sign of vulnerability to others
- May use arm for light activities of daily living (such as feeding, brushing teeth, dressing…) with elbow near the side of the body and arm in front of the body
- May submerge in water (tub, pool, Jacuzzi, etc…) after 4 weeks
- Continue to avoid weight bearing through the operative arm
- Continue to avoid combined IR/EXT/ADD (hand behind the back) and IR/ADD (reaching across chest) for dislocation precautions

GOALS

- Achieve passive elevation to 120 and ER to 30
- Low (less than 3/10) to no pain
- Ability to fire all heads of the deltoid

EXERCISES

- May discontinue grip, and active elbow and wrist exercises since using the arm in ADL's with sling removed around the home
- Continue passive elevation to 120 and ER to 30, both in scapular plane with arm supported on table top
- Add submaximal isometrics, pain free effort, for all functional heads of deltoid (anterior, posterior, middle). Ensure that with posterior deltoid isometric the shoulder does not move into extension and the arm remains anterior the frontal plane
- At 4 weeks: begin to place arm in balanced position of 90 deg elevation in supine; when patient able to hold this position with ease, may begin reverse pendulums clockwise and counterclockwise
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CRITERIA TO PROGRESS TO PHASE 3

- Passive forward elevation in scapular plane to 120; passive ER in scapular plane to 30
- Ability to fire isometrically all heads of the deltoid muscle without pain
- Ability to place and hold the arm in balanced position (90 deg elevation in supine)

Phase III: Weeks 6-12

GENERAL GUIDELINES AND PRECAUTIONS

- Discontinue use of sling
- **Avoid forcing end range motion in any direction to prevent dislocation**
- May advance use of the arm actively in ADL's without being restricted to arm by the side of the body, however, avoid heavy lifting and sports (forever!)
- May initiate functional IR behind the back gently
- **NO UPPER BODY ERGOMETER**

GOALS

- Optimize PROM for elevation and ER in scapular plane with realistic expectation that max mobility for elevation is usually around 145-160 passively; ER 40 to 50 passively; functional IR to L1
- Recover AROM to approach as close to PROM available as possible; may expect 135-150deg active elevation; 30 deg active ER; active functional IR to L1
- Establish dynamic stability of the shoulder with deltoid and periscapular muscle gradual strengthening

EXERCISES

- Forward elevation in scapular plane active progression: supine to incline, to vertical; short to long lever arm
- Balanced position long lever arm AROM
- Active ER/IR with arm at side
- Scapular retraction with light band resistance
- Functional IR with hand slide up back – very gentle and gradual
- Wall walking and/or pulleys
- Supine, inverted pendulums
- **NO UPPER BODY ERGOMETER**

CRITERIA TO PROGRESS TO PHASE 4

- AROM equals/approaches PROM with good mechanics for elevation
- No pain
- Higher level demand on shoulder than ADL functions

Phase IV: 3 Months +

GENERAL GUIDELINES AND PRECAUTIONS

- No heavy lifting and no overhead sports
- No heavy pushing activity
- Gradually increase strength of deltoid and scapular stabilizers; also the rotator cuff if present with weights not to exceed 5 lbs
- **NO UPPER BODY ERGOMETER**

GOALS

- Optimize functional use of the operative UE to meet the desired demands
- Gradual increase in deltoid, scapular muscle, and rotator cuff strength
- Pain free functional activities

EXERCISES

- Add light hand weights for deltoid up to and not to exceed 3lbs for anterior and posterior with long arm lift against gravity; elbow bent to 90 deg for abduction in scapular plane
- Theraband progression for extension to hip with scapular depression/retraction
- Theraband progression for serratus anterior punches in supine; avoid wall, incline or prone pressups for serratus anterior
- End range stretching gently without forceful overpressure in all planes (elevation in scapular plane, ER in scapular plane, functional IR) with stretching done for life as part of a daily routine
- **NO UPPER BODY ERGOMETER**

CRITERIA FOR DISCHARGE FROM SKILLED PHYSICAL THERAPY

- Pain free AROM for shoulder elevation (expect around 135-150)
- Functional strength for all ADL's, work tasks, and hobbies approved by surgeon
- Independence with home maintenance program

NOTES:

1. With proper exercise, motion, strength, and function continue to improve even after one year.

2. The complication rate after surgery is 5 - 8%. Complications include infection, fracture, heterotopic bone formation, nerve injury, instability, rotator cuff tear, and tuberosity nonunion. Look for clinical signs, unusual symptoms, or lack of progress with therapy and report those to the surgeon.

3. The therapy plan above only serves as a guide. Please be aware of specific individualized patient instructions as written on the prescription or through discussions with the surgeon.

4. Please call Dr. Boden's office if you have any specific questions or concerns *502-588-4521*

5. The patient's —Home exercise stretching program (critical for first 10 weeks) is attached.

Discharge Instructions after Total Shoulder Arthroplasty

General
- Use ice on the shoulder intermittently over the first 48 hours after surgery, then as needed.
- Caution: Narcotics are habit forming and have multiple side effects. Begin to taper your use as soon as you are able.

Activity
- Wear sling at all times, removing it only to shower, dress/undress, or for any prescribed exercises. Do not drive while in your sling and/or on narcotic medications.
- When getting dressed/undressed, gently assist your elbow into a hanging position and lean over with your arm hanging down like a weight on a string if you need to access your armpit or slide on a shirt sleeve—do not raise your arm from your side against gravity
- Move your fingers frequently to prevent swelling.
- Stay hydrated and walk frequently to avoid pneumonia, blood clots, and constipation

Over the counter medications
- To prevent constipation: Stool softener of choice. Miralax is most popular, but Colace, Dulcolax or Senakot—whatever keeps you regular.
- For pain: Tylenol should be used (as long as you do not have liver disease) for pain
- Blood thinner: Aspirin 325 mg daily for 6 weeks unless you are already on a different blood thinner (Coumadin, Xarelto, lovenox, etc.)

Wound care
- You may remove your dressing after two days, leave any steri-strips/sutures/staples in place.They will fall off on their own.
- You may shower 5 days after surgery. The incision CANNOT get wet prior to 5 days. Simply allow the water to wash over the site and then pat dry. Do not rub the incision. Make sure your axilla (armpit) is completely dry after showering.
- Keep incision out of direct sunlight until the scars fade (months)
- If garments irritate incision, feel free to cover with a band-aid or gauze

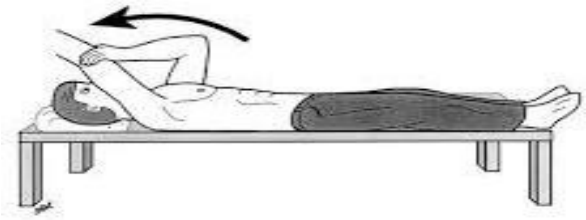
Diet
- Stay hydrated
- High fiber diet with extra fresh fruits and vegetables

Concerning Findings
If you have any problems:
- During business hours call the office: *502-588-4521*
- Concerning findings: Excessive redness of the incisions, Drainage for more than 4 days after surgery, Fever of more than 101.5° F

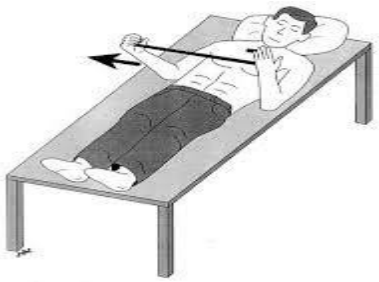
You should see Dr. Boden 10-14 days after your surgery. If you do not have an appointment, please call *502-588-4521* to schedule

Home Range of Motion Exercises

- Perform passive, assisted forward flexion and external rotation (outward turning) exercises with the operative arm. You were taught these exercises prior to discharge. Both exercises should be done with the non-operative arm used as the "therapist arm" while the operative arm remains completely relaxed.
- 10 of each exercise should be done 5 times daily, work up to the max degrees



Forward FlexionMaximum: _____deg. (if not specified, default is 140 º)
Lay flat on your back, completely relax your operative arm like a wet noodle, and grasp the wrist of the operative shoulder with your opposite hand. Using the power in your opposite arm, bring the stiff arm up only to the maximum indicated above (90 degrees indicates your arm pointed straight ahead). Start holding it for ten seconds and then work up to where you can hold it for a count of 30. Breathe slowly and deeply while the arm is moved. Repeat this stretch ten times. Repeat the entire cycle 5 times per day.



External rotation Maximum: _____deg. (if not specified, default is 40 º)
External rotation is turning the arm out to the side while your elbow stays close to your body. It is best stretched while you are lying on your back. Hold a cane, yardstick, broom handle, or golf club in both hands. Bend both elbows to a right angle. With your operative arm completely relaxed, use steady, gentle force from your normal arm to rotate the hand of the stiff shoulder out away from your body. Continue the rotation only to the maximum indicated above (90 degrees indicates your arm pointed straight ahead). Holding it there for a count of 10. Repeat this exercise ten times. Repeat the entire cycle 5 times per day.