

SHOULDER ARTHROPLASTY REHAB PROTOCOL

Dear Colleague,

I appreciate your partnership in the rehabilitation of this very special patient. I have instructed the patient that you will be using my protocol. My philosophy is that the biggest predictor of success is what the patient does at home. They should view you not just as a therapist but as a highly educated and skilled teacher and the patient *must* be an active participant in the rehab process.

To facilitate this, I have included a copy of the rehab protocols I want the patient to focus on at each visit. Please feel free to give copies of this section of the protocol to the patient and please assist me by encouraging and teaching our mutual patient these home exercises.

With your help, and the active participation of our patient, I know we can have another fantastic shoulder.

Please do not hesitate to reach out directly to me and my team with any questions at any time.

Respectfully,

Grant Garrigues, MD
Professor, Orthopaedic Surgery
Co-Team Physician, Chicago White Sox
Director of Upper Extremity Research
Shoulder Specialist

PHASE 1 (Day 1 through Week 2)

GENERAL GUIDELINES AND PRECAUTIONS

- Sling wear can be removed for eating, sitting in a chair, and dressing with elbow dangling from the side. Also remove for supine, passive well-arm assisted exercises minimum 5x per day. Otherwise sling should be worn
- Avoid shoulder extension such that the arm is posterior the frontal plane. E.g. do not push up out of a chair using the operative arm
- No active shoulder ROM
- No submersion in pool/water for 4 weeks
- No weight bearing through operative arm (as in transfers, walker use, etc...)

GOALS

- Teach 140/40 HEP (*below*) and encourage minimum 5x per day.
- Increase PROM for elevation to 140 and ER to 40
- Maintain integrity of joint replacement; protect soft tissue healing
- Minimize hand swelling by maintaining hand wrist and elbow ROM
- Instruct in use of sling, don/doff

EXERCISES

- 140/40 Protocol: Focus should be on supine, passive well-arm or wand-assisted ROM. Max elevation 140 max external rotation 40. Minimum 5x per day.
- Active elbow, wrist and hand
- **140/40 Protocol** is provided in the Patient handout section—Please ensure patient is participating

PHASE 2 (2 weeks – 6 weeks)

GENERAL GUIDELINES AND PRECAUTIONS

- Sling may be removed while at home/controlled environment; worn only rarely in very busy/crowded locations in public without abduction pillow as a sign of vulnerability to others. If patient is an active sleeper recommend wearing during sleep.
- 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

GOALS

- Ensure patient is doing 140/40 protocol minimum 5x per day

EXERCISES

- **140/40 Protocol** is provided in the Patient handout section—Please ensure patient is participating

PHASE 3 (6 weeks – 3 months)

GENERAL GUIDELINES AND PRECAUTIONS

- Discontinue all use of sling.
- 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
- Initiate functional IR behind the back

GOALS

- Optimize PROM in all planes
- Encourage home stretching in all planes (adding IR)
- Establish dynamic stability of the shoulder with deltoid, posterior rotator cuff, 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
- Functional IR with hand slide up back
- Wall walking and/or pulleys
- Supine, inverted pendulums

- No upper body ergometer—ever.
- **Phase 3 HEP** is provided in the Patient handout section—Please ensure patient is participating

PHASE 4 (3 months +)

GENERAL GUIDELINES AND PRECAUTIONS

- Gradually increase strength with emphasis on ER endurance and scapular stabilizers

GOALS

- Optimize functional use of the operative UE to meet the desired demands
- Gradual increase strength
- Pain free functional activities

EXERCISES

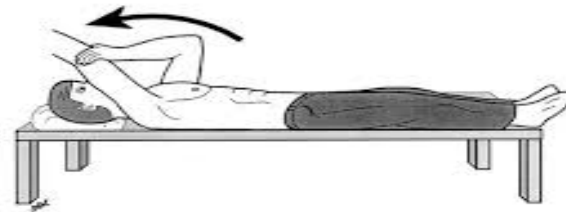
- Gradually increase strengthening starting with theraband and light free-weight exercises—emphasis on mid-back (seated row / scapular retraction) and ER for life
- Continued stretching minimum once per day
- No upper body ergometer
- **Phase 4 HEP** is provided in the Patient handout section—Please ensure patient is participating

PHASE 1&2 (0-6 weeks)

- Perform PASSIVE, well-arm (nonoperative) assisted **forward flexion** and **external rotation** (outward turning) exercises with the operative arm.
 - 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**, working up to the maximum degrees indicated

Forward Flexion Maximum: 140°

Lay flat on your back, *completely relax your operative arm like a wet noodle*, and grasp the wrist/forearm of the operative shoulder with your opposite hand. Using the power in your opposite arm, bring the stiff (operative) arm up only to the maximum degrees (90° indicates your arm is at shoulder level). Start holding it for 10 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 10 times. Repeat the entire cycle 5 times per day.*



****You can also use a pole/stick/cane to perform this exercise. Hold the stick vertical, with the operative arm at the top and the nonoperative arm at the bottom. Keep the operative arm RELAXED (muscles not activated) and push up with your nonoperative arm to reach the maximum degrees.**

External Rotation Maximum: 40°

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 with both hands. Bend both elbows to a right angle. *With your operative arm completely relaxed*, use steady, gentle force from your nonoperative arm to rotate the hand of the stiff shoulder out away from your body. Continue the rotation only to the maximum degrees. Hold the arm there for a count of 10. *Repeat this exercise 10 times. Repeat the entire cycle 5 times per day.*



PHASE 3 (6-12 weeks)

Forward Flexion:

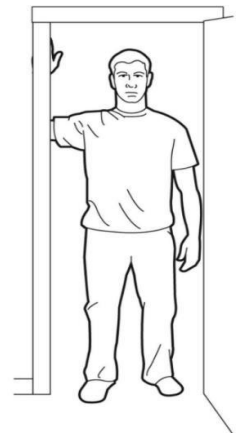
Lay flat on your back and grasp a pole-like object (cane or golf club). Hold the pole vertically with the operative arm at the top, and the nonoperative towards the bottom. Keep your operative arm stiff & straight. Using the power in your nonoperative arm, bring the stiff arm up only to the maximum degrees (90° indicates your arm pointed straight ahead).



Hold this for 20-30 seconds. *Repeat this cycle as often as possible, for a minimum of 5 times per day.*

External Rotation:

External rotation is turning the arm out to the side *while your elbow stays close to your body*. Stand in an open doorway. Raise the operative arm up to your side, bent at a 90 degree angle with the palm facing forward/resting on the doorframe. Slowly step forward with one foot. You should feel the stretch in your shoulders and chest. Continue the rotation only to the maximum degrees



Hold this for 20-30 seconds. *Repeat this cycle as often as possible, for a minimum of 5 times per day.*

Internal Rotation:

While standing, bring operative arm behind your back with knuckles near spine. Slide the hand up your back as far as possible. Using nonoperative arm, assist the operative arm further up the back. You should feel a stretch at the front of your shoulder. Hold stretch for 10 seconds, and then relax. As you progress, you can leave the operative arm resting on the small of your back and walk around for several minutes.



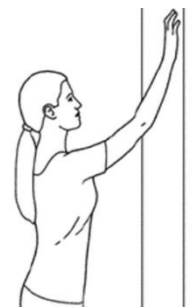
Hold (or leave resting at small of back) for 20-30 seconds. *Repeat this cycle as often as possible, for a minimum of 5 times per day.*

Wall Walking:

Stand against a wall. Use your fingers to “inch” up the wall. Try to get your armpit as close to the wall as you can as you reach as high as you can.

Hold for 20-30 seconds. *Repeat this cycle as often as possible, for a minimum of 5 times per day.*

Note: All exercises above pictures using the right shoulder.



PHASE 4 (>12 weeks)

External Rotation:

Main muscles worked: Infraspinatus, teres minor, posterior deltoid
You should feel on the back of your shoulder

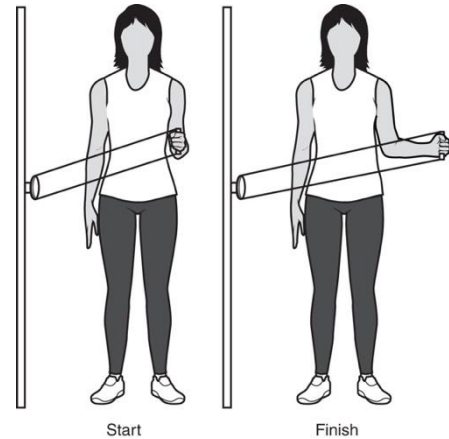
Equipment needed: Use an elastic stretch band of comfortable resistance.
As the exercise becomes easier to perform, progress to 3 sets of 12 repetitions.

Repetitions: 3 sets of 8

Step-by-step directions

- Make a 3-foot-long loop with the elastic band and tie the ends together.
- Attach the loop to a doorknob or other stable object.
- Stand holding the band with your elbow bent and at your side, as shown in the start position.
- Keeping your elbow close to your side, slowly rotate your arm outward.
- Slowly return to the start position and repeat.

Tip: Squeeze your shoulder blades together when you pull your elbow back.



Standing Rows:

Main muscles worked: Middle and lower trapezius
You should feel this exercise at the back of your shoulder and into your upper back

Equipment needed: Use an elastic stretch band of comfortable resistance.
As the exercise becomes easier to perform, progress to 3 sets of 12 repetitions.

Repetitions: 3 sets of 8

Step-by-step directions

- Make a 3-foot-long loop with the elastic band and tie the ends together. Attach the loop to a doorknob or other stable object.
- Stand holding the band with your elbow bent and at your side, as shown in the start position.
- Keep your arm close to your side and slowly pull your elbow straight back.
- Slowly return to the start position and repeat.

Tip: Squeeze your shoulder blades together as you pull.

