Alexander Bollinger, M.D.
Shoulder, Elbow, Wrist, Hand
and Arthroscopic Surgery
www.aoaortho.com

ADVANCED ORTHOPAEDIC ASSOCIATES, P.A.

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Protocol S11
Conservative Physical Therapy Protocol for Shoulder Replacement (Hemiarthroplasty or Total Shoulder Arthroplasty)

Phase I: Protection Phase (0-6 wks)

GOAL:

- Increase passive shoulder range of motion.
- Protect the integrity of the shoulder replacement and rotator cuff repair.
- Decrease pain and inflammation.

ANCILLARY MEASURES:

- Use pain medications as needed.
- Use moist heat modalities before exercises.
- Use ice at end of exercises, if needed.
- Shoulder immobilizer should be worn for the first 6 weeks.

EXERCISES:

- **Codman's Pendulum:** Stand adjacent to a chair or table and bend slightly at the waist. Support your body weight by leaning on the chair or table with the opposite arm. Let the full weight of the operated arm hang freely. Gently swing the operated arm forward and back, side to side as tolerated for 15 seconds. Progress to 3-5 minutes. Repeat 3 times each day.
- **Passive Forward Flexion:** Use a therapy helper or your opposite arm to gently raise operated arm up in front. Start with operated arm at your side and passively bring hand to your mouth, forehead and to the top of your head. Repeat 3 times per day, 10 repetitions.
- **Gentle Active External Rotation:** With arm at side and elbow flexed 90 degrees, rotate your forearm, bringing hand straight out in front (as though accepting change from a cashier). Repeat 3 times per day, 10 repetitions.
- **Hand/Wrist ROM:** Active ROM of the elbow, wrist and fingers on the operated side is encouraged. Ball squeezes are allowed. Table top activities (dining, writing, computer use) are allowed.

PRECAUTIONS:

- Physical therapist should understand expectations for shoulder range of motion based on the passive shoulder ROM achieved intraoperatively.
- Avoid passive external rotation during this phase so as not to jeopardize the subscapularis repair.

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Phase II: Motion Phase (7-12 wks)

GOAL:

- Decrease pain and inflammation.
- Regain full active ROM of operated shoulder.

ANCILLARY MEASURES:

- Use pain medications as needed.
- Ice shoulder (cold pack) after exercises and/or as needed.
- Shoulder immobilizer is discontinued.

EXERCISES:

- **Continue all Phase I exercises** described above. Add the following exercises which may be supervised by a physical therapist.
- **Active Range of Motion:** Begin progressive active range of motion in all planes in pain free range. Repeat 3 times per day, 10 repetitions.
- **Overhead Pulley:** Secure overhead pulley in doorway. Grasp both handles. At first, pull down on the unoperated side while the operated shoulder is relaxed (passive motion). Progress to active motion of the operated shoulder as tolerated. Repeat 3 times per day, 10 repetitions.
- **Isometrics:** Shoulder flexion, extension, abduction, external rotation and internal rotation isometrics are encouraged. Shoulder shrug exercise as tolerated. Elbow flexion isometrics may be initiated.
- **Anterior Deltoid Strengthening:** Start lying down on your back on a bed or flat surface. Grasp a small bottle or one pound weight with both hands, elbows bent 90 degrees. Raise the weight straight up overhead, then 15 degrees from vertical. Push inward, squeezing the weight with both hands. Hold for 5 seconds, then relax. Compete 10 repetitions, repeat 3 times per day.

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Phase III: Strengthening Phase (13+ wks)

GOAL:

- Maintain ROM.
- Improve muscle strength.
- Re-establish shoulder stability.
- Increase activities of daily living (ADLs).

ANCILLARY MEASURES:

- Use pain medications as needed.
- Ice shoulder (cold pack) as needed.

EXERCISES:

- **Continue all Phase I and Phase II exercises.**
- **Isotonic Strengthening w/Therabands:** Secure the theraband to a doorknob or hook so that you may stretch the band until you feel resistance. Start using low resistive theraband, low repetitions, 3 times per day. Gradually increase repetitions to achieve 20 repetitions per exercise, 3 times per day. Then graduate to more resistive theraband and begin with 5 repetitions and repeat process, gradually increasing repetitions per exercise per day. Strengthening exercises should include shoulder flexion, extension, abduction, external rotation and internal rotation.
- **Isotonic Strengthening w/Free Weights:** Progress to light free weights (not more than three pounds) after therabands have been used.
- **Shoulder Shrugs**: Exercise should be performed with a theraband. Stand in the center of the theraband, shrug shoulders and hold for 5 seconds. Repeat 3 times per day, 10 repetitions.
- **Wall Push Ups:** Stand at arms-length away from wall. Place hands on wall at shoulder height. Rotate hands inward 45 degrees. Lean towards wall and pinch shoulder blades together, hold for 5 seconds. Repeat 3 times per day, 10 repetitions.