

Protocol S5
Conservative Physical Therapy Protocol for Rotator Cuff Repair
(Arthroscopic or Mini-Open Technique)
Recommended for a large to massive (≥ 5 cm) RC tear

Phase I: Protection Phase (Weeks 0-6)

FOCUS: Passive range of motion (ROM).

GOALS:

- Minimize pain and inflammation.
- Maintain integrity of the repair.
- Regain full passive forward flexion of operated shoulder.

ANCILLARY MEASURES:

- Use pain medications as needed.
- Ice the shoulder (cold pack) as needed.
- Wear shoulder immobilizer at all times (except during exercises) for 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 arm up in front. Start with 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. Passive range of motion in all planes allowed.
- **Active and Gentle Passive 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). Gradually increase active external rotation as tolerated. Repeat 3 times per day, 10 repetitions.
- **Hand/Wrist/Elbow ROM:** Active ROM of the elbow, wrist and fingers on the operated side is encouraged. Gripping exercises are allowed.

PRECAUTIONS:

- NO active motion of the shoulder is permitted.
- NO reaching or lifting with operated extremity.
- NO pushing up from chair; no pushing open door.
- Passive ROM of the shoulder should be increased very slowly during this phase. Early postoperative stiffness is accepted, in return for greater likelihood of rotator cuff healing.

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Phase II: Motion Phase (Weeks 7-12)

FOCUS: Active shoulder range of motion (ROM).

GOALS:

- Decrease pain and inflammation.
- Regain full active ROM of operated shoulder.
- Avoid shoulder reinjury.
- Re-establish shoulder stability.

ANCILLARY MEASURES:

- Use pain medications only as needed.
- Ice shoulder when painful.
- Discontinue use of shoulder immobilizer.
- Wear simple arm sling only during uncontrolled conditions (work) until 8 weeks postop.

EXERCISES:

- **Continue all Phase I exercises** described above. Add the following exercises which shoulder be supervised by a physical therapist.
- **Passive stretching:** Gentle stretching, particularly in forward flexion, abduction and adduction, should be done if the patient has not regained full passive range of motion of the operated shoulder. Very gentle passive external rotation may be done with goal of achieving external rotation of the opposite shoulder. **Stick exercises** may be initiated.
- **Active-Assisted Range of Motion:** Begin active-assisted forward flexion and abduction and progress to active range of motion as tolerated.
- **Active Range of Motion:** Begin progressive active forward flexion and abduction 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 and internal rotation isometrics are encouraged. Shoulder shrug exercise as tolerated. Elbow flexion isometrics may be initiated.

PRECAUTIONS:

- NO lifting more than weight of arm.
- NO reaching or pushing up from chair with operated arm. No sudden jerking motions.
- NO isotonic strengthening with therabands or free weights.

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Phase III: Strengthening Phase (Weeks 13-18)

FOCUS: Shoulder strength

GOALS:

- Maintain full, painless shoulder ROM.
- Strengthen deltoid, rotator cuff and scapular stabilizers.
- Return to functional activities.

ANCILLARY MEASURES:

- Use non-narcotic pain medications at night if required.
- Sling should be discontinued.

EXERCISES:

- **Continue all Phase I and II exercises** described above. Add the following exercises under the direction of a physical therapist.
- **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, 5 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.
- No use of free weights until the patient is 6 months postop.
- **Aggressive Stretching:** Self stretching may be helpful prior to strengthening exercises. Stretch in adduction (posterior capsule), external rotation and internal rotation (using towel or belt behind back) to maximize range of motion.

PRECAUTIONS:

- NO heavy lifting.
- NO sports activity.
- NO pushing off to support body weight.
- NO pain during the isotonic strengthening exercises. If pain is encountered, rest shoulder for 7-10 days, then resume exercises. If still painful, discontinue strengthening program and contact our office.

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Phase IV: Advanced Strengthening Phase (Weeks 19-26)

FOCUS: Functional Improvement (if needed)

GOALS:

- Prepare for strenuous work activity
- Prepare for sports activity

EXERCISES:

- **Continue Phase III strengthening** program outlined above on a daily basis. May be done with or without the supervision of physical therapist.
- **Work Hardening** program is added if required to prepare patient for return to strenuous work.
- **Sports specific exercises** are added if appropriate.

PRECAUTIONS:

- NO heavy overhead lifting or work.
- NO contact or strenuous sports.

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Phase V: Maintenance Phase (Week 27 and later)

FOCUS: Maintain optimal function

GOALS:

- Return to strenuous work activity w/o restrictions
- Return to sports activity w/o restrictions

EXERCISES:

- Continue maintenance exercise program of isotonic strengthening 3 times per week. Exercises are done without the assistance of a physical therapist.
- Continue sports specific exercise program as needed.

PRECAUTIONS:

- Avoid shoulder re-injury by common mechanisms such as overhead work and weight lifting.
- Consider permanent work restrictions or job change.
- Use common sense and avoid painful activities or exercises.