



PHYSICAL THERAPY PROTOCOL AFTER REVERSE TOTAL SHOULDER ARTHROPLASTY:

The intent of this protocol is to provide the clinician with a guideline of the postoperative rehabilitation course of a patient that has undergone an open reverse total shoulder arthroplasty. It is no means intended to be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam/findings, individual progress, and/or the presence of postoperative complications. If a clinician requires assistance in the progression of a postoperative patient, they should consult with the referring Surgeon.

Depending on the intraoperatively determined quality of bone and remaining tendons, the surgeon defines in the operative report when pendulum exercises, passive range of motion (PROM) therapy may be started. Accordingly, the treatment is defined individually for each patient by the surgeon and recorded in the operation report.

Phase I – Immediate Post-Surgical Phase (Week 1-4):

Goals:

- PROTECT the reverse total shoulder arthroplasty. The decision if abduction brace/pillow or sling is necessary depends on the surgeon's intraoperative findings.
- Independent with ACTIVITIES OF DAILY LIFE (ADLs) with modifications while maintaining the integrity of the repair.
- Gradually start passive range of motion

Precautions:

- No active range of motion (AROM) of Shoulder
- Maintain arm in sling, remove only for exercise for elbow, wrist and fingers
- No lifting of objects
- No excessive stretching or sudden movements
- No supporting of body weight by hands
- Keep incision clean and dry

DAY 1 TO 6:

- Abduction brace or pillow / sling
- Sleep in brace or pillow / sling
- Start Elbow, wrist, and finger active range of motion (AROM) at day 1
- Cryotherapy for pain and inflammation -Day 1-2: as much as possible -Day 3-6: post activity, or for pain, or for comfort (IMPORTANT: USE TOWEL TO PROTECT SKIN AND PAUSE CRYOTHERAPY AT LEAST FOR 20 MIN/HOUR TO PREVENT FROSTBITE)

DAY 7 TO 28:

- Continue use of brace/ pillow / sling
- Continue Elbow, wrist, and finger AROM / resisted
- Cryotherapy as needed for pain control
- Start pendulum and scapula strengthening exercises

Exercises:

[shoulder shrug and roll](#)

- Pendulum Exercises: (start of pendulum exercises is defined by the surgeon in the OR report. Do not start pendulum exercises if the operation report states that pendulum exercises should be started from the 6th or 8th postoperative week.)

[pendulum exercises](#)

- Start passive ROM (PROM): The PROM exercises should be supervised by the physiotherapist during the first session. In addition, the PROM home exercises should be trained by the physiotherapist. Start of passive ROM is defined by the surgeon in the OR report. Do not start PROM exercises if the operation report states that PROM exercises should be started later).

Phase II – Protection Phase (Week 5-8):

Goals:

- Do not overstress healing tissue
- Gradually start active range of motion
- Discontinue brace / sling at end of week 4-5
- Initiate active assisted range of motion (AAROM) under guidance of physical therapy:

Precautions:

- No lifting
- No sudden jerking motions
- No supporting of body weight by hands and arms
- No excessive behind the back movements

Start active ROM (AROM): The AROM exercises should be supervised by the physiotherapist during the first session. In addition, the PROM home exercises should be trained by the physiotherapist. (Start of active ROM is defined by the surgeon in the OR report. Do not start AROM exercises if the operation report states that AROM exercises should be started later.)

Exercises:

1. [flexion in supine position](#)
2. [sitting assisted forward reach \(elevation\)](#)
3. [standing wall-assisted forward flexion](#)
4. Cane-Assisted External Rotation at [20 degrees](#), [45 degrees](#) and [90 degrees](#)
[Abduction / seek guidance for external rotation in the OR report](#)
5. [Doorway Standing External Rotation/ seek guidance for external rotation in the OR report](#)
6. [Scapular plane Abduction to Tolerance](#)
7. [Active Range of Motion Forward Flexion in the Scapular Plane](#)
8. Active Range Of Motion External Rotation in Multiple Positions: [Side-Lying](#) or [Sitting](#)

Phase III – Intermediate phase (week 9-16):**Goal:**

- Maintain Full AROM and Maintain Full PROM
- Gradual restoration of shoulder strength, power, and endurance (Elastic bands)
- Gradual return to functional activities

Precautions:

- No heavy lifting of objects (no heavier than 5 lbs.)
- No sudden lifting or pushing activities
- No sudden jerking motions
- No heavy lifting of objects (no heavier than 5 lbs.)
- No sudden lifting or pushing activities
- No sudden jerking motions

Start of strengthening with elastic bands and light weights is defined by the surgeon in the OR report. Do not start strengthening if the operation report states that strengthening should be started later.

Exercises:

1. [Active Range of Motion External Rotation with Band Strengthening](#)
2. [Active Range of Motion Internal Rotation with Band Strengthening](#)
3. [Row with Resistance Band](#)
4. [Towel/Hand-assisted Internal Rotation Stretch](#)
5. [Side lying Internal Rotation Stretch at 70 and 90 Degrees](#)
6. [Cross-Body Stretch](#)
7. Water (pool) therapy Standing in water with float under arm, lower body into water to help stretch into flexion
8. Standing in water with float under arm, lower body to side to help with external rotation

Phase IV Advanced strengthening phase (week 13-22):**Goals:**

- Maintain full non-painful active ROM
- Advance conditioning exercises for Enhanced functional use of UE
- Improve muscular strength, power, and endurance (light weights)
- Gradual return to full functional activities
- Continue to perform ROM stretching, if motion is not complete

Exercises:

- [Side-lying External Rotation with Towel](#)
- [Full Can in the Scapular Plane](#)
- [Prone Scaption](#)
- [Diagonal](#)
- [Dynamic Hug](#)
- [Internal Rotation at 90 Degrees Abduction](#)
- [Forward Band Punch](#)
- [Sitting Supported External Rotation at 90 Degrees](#)
- [Standing Unsupported External Rotation at 90 Degrees](#)
- [Biceps Curl](#)



Phase V – Return to activity phase (week 23):

Goals:

- Gradual return to strenuous work activities
- Gradual return to recreational activities
- Gradual return to sport activities
- Continue strengthening and stretching
- Continue stretching, if motion is tight
- May initiate interval sport program