# Reverse Total Shoulder Arthroplasty

Reverse Total Shoulder Arthroplasty is utilized in cases of RTC arthropathy with significant deficiency of the RTC and loss of humeral head containment and anterior superior escape. The Rev. Shoulder arthroplasty is dependent upon the deltoid for function. The geometry of the joint replacement system substitutes for the absent RTC and allows the deltoid muscle to elevate the arm. The rehabilatation for the RSA in some ways is simpler than an anatomic shoulder arthroplasty simply because there is limited amount of rehabilitation for the RTC necessary. The rehab is divided into 3 phases. Phase 1 focuses on passive range of motion (PROM) and the onset on active assisted range of motion (AAROM). Phase 2 is continuation of AAROM and initiation of AROM. Phase 3 focuses on obtaining terminal AROM and strengthening of the periscapular muscles and deltoid.

Some general precautions need to be strictly observed. First the original arthroplasty has a significantly higher risk of dislocation than a conventional total shoulder arthroplasty. The position of instability for a reverse shoulder arthroplasty is in the extended and internally rotated position and any movement that puts the arm behind the back should be strictly avoided for the first 12 weeks after surgery.

Phase I (0 – 3 weeks)

Precautions:

- Sling and bolster is worn full time for the first 4 weeks after surgery except for exercising and showering.
- Position of extension should be avoided when the patient is lying supine, the elbow should be supported by a pillow or folded towels to keep the plain of the arm linear with the plain of the body.
- No Active shoulder range of motion, no weight bearing through the involved extremity, no lifting of any objects with that arm.

Post Op Day # 1 (In Hospital)

- Cryotherapy to control swelling, inflammation and pain.

Post Op Day # 2 (In Hospital)

- Passive elevation of the shoulder in the scapular plane to 90 degrees.
- Passive external rotation in the scapular plane limits as noted by physician (typically 20-30 degrees),
- Pengulum exercises.
- AAROM and AROM of the elbow, wrist and digits.

Post operative day 3 to 4 weeks - Continue previous exercises

- Progress passive forward elevation in scapular plane to 120 degrees.
- Progress external rotation in the scapular plane to 40 degrees.
- Initiate periscapular sub-maximal pain free isometrics in the scapular plane,
- Begin sub-maximal pain free deltoid isometrics in the scapular plane continue active elbow , wrist and digital ROM.
- Can initiate some light resisted exercises of elbow wrist and hand at the 3 week mark.
- 4 weeks postoperatively initiate AAROM and AROM.
- Forward flexion elevation in the scapular plane initially in the supine position and then progress to sitting and standing position.
- Can progress with ROM as tolerated.
- Continue passive external rotation increasing to 50 degrees.
- Initiate internal rotation stretches in abducted position.

Phase II AROM –Early Strengthening stage – Weeks 6-12

Post operative weeks 6-8 – Continue AROM and AAROM as tolerated, continue PROM as tolerated.