**Overview:**

You have recently undergone total shoulder arthroplasty (TSA). The goals of this procedure are to improve shoulder function, increase active range of motion, and reduce pain. You are now asked to be an active player in your rehabilitation to achieve these goals. The time required for full recovery is typically 9-12 months. The information below is intended for both you and your therapist. Your therapist and Dr. Duquin are available to you for guidance at every step through this important rehabilitation process.

**Precautions:**

* In this procedure, the subscapularis tendon is detached for exposure of the glenohumeral joint. This tendon is then reattached after the arthroplasty is complete. The reattachment must be given 6 weeks of strict protection to allow for healing. During this time, all strengthening activities involving internal and external rotation must be avoided. Failure to comply with this precaution could result in detachment of the tendon, necessitating further surgery.
* **No active use of shoulder motion for 6 weeks in all planes.**
* **No internal rotation strengthening for 10 weeks** (i.e. pulling objects toward you or reaching behind your body).
* No lifting of objects heavier than a coffee cup or feeding utensils.
* When lying supine, a small pillow or towel roll should be placed behind the elbow to avoid shoulder hyperextension/anterior capsule stretch/subscapularis stretch.

**Wound Care:**

* Your surgical wound has been closed with dissolving suture that is under the skin. It is sealed with Steri-Strips and skin glue that are to remain in place until they fall off on their own.
* You are allowed to shower 72 hours after surgery. No soaking of wound.
* Gently pad your wound dry with a clean towel.
* Any unusual redness or drainage should be brought to the attention of Dr. Duquin.
* Icing 3-5 times/day for 20 minutes for the first week, then as needed as per therapist.
* Modalities as needed per therapist.

**Immobilization:**

* Immobilizer full-time during first week. Gently remove for indicated exercises, hygiene activities and getting dressed.
* After the first week Immobilizer is to be worn at night and when active or in an unprotected environment (crowded setting) until 6 weeks after surgery.
* Discontinue use of immobilizer completely at 6 weeks.

**Pain Control:**

* Pain medication is often required on a regular schedule for the first few days. Patients should use prescribed pain medication as needed and begin weaning from medication as pain allows during the initial 6 weeks.
* Pain is an important indicator of how much stress is being applied to the subscapularis repair, so pain medication should be taken after therapy sessions not before.
* No driving during at least the first 6 weeks of recovery and when taking pain medication.
* No pain medication is prescribed after 2 months from the surgery.
* Patients who are on chronic pain medication or following with a pain management provider need to notify us prior to surgery so we can coordinate appropriate pain management after surgery.

**Immediate Post-Op In-Hospital (Days 1-2)**

* **Reminder**: No active shoulder motion for 6 weeks in all planes
* Exercises
  + Pendulum exercise without weight (Codman’s)
  + AROM Exercise (to continue for duration of rehabilitation)
    - Slow/controlled seated elbow flexion/extension
    - Wrist flexion/extension; pronation/supination
    - Active grip
* Ice
* Modalities PRN
* Discharge from hospital
* Continue home exercise program as instructed until first post-op visit

**1-2 Weeks Post-Op**

* First Post-Op appointment with Christine Ehrensberger Dr. Duquin’s physician’s assistant
* Wound Check and review patient concerns
* Prescription given to start outpatient physical therapy
* Exercises
  + Pendulum exercise
  + AAROM Exercises
    - Forward flexion in supine position
    - **Gentle external rotation to 20˚**
      * Stick used to active assist subscapularis stretch
      * Hold for 5-10 seconds for 10 repetitions
    - During next two weeks:
      * Progress from finger walk across table 🡺 wall climbs 🡺 Pulleys
      * Instruct on pulley use for home exercise
  + Gentle Isometric Exercises
    - Forward Flexion, Abduction, External Rotation at neutral
    - Bilateral extension into wall to work scapular retractors
    - Continue standing isometric serratus punch
  + AROM Exercises (**no weight**)
    - Shoulder shrugs
    - Elbow flexion/extension
    - Scapular retraction in prone position
    - Gripping exercises
    - Wrist pronation/supination/flexion/extension
* Ice
* Modalities PRN

**4 Weeks Post-Op**

* Exercises
  + AROM Exercises
    - **All planes, except still NO ACTIVE INTERNAL ROTATION**
    - **Limit external rotation to 30˚**
  + Progressive Resistance Exercises (using low weight and Therabands)
    - Shoulder shrugs
    - Elbow flexion/extension
    - Scapular retraction in prone position
    - Gripping exercises
    - Wrist pronation/supination/flexion/extension
    - Add supine serratus punch without weight
* Scar mobility
* Ice
* Modalities PRN

**6 Weeks Post-Op**

* Follow up visit with Dr. Duquin
* Discontinue sling / immobilizer completely
* Patients may use arm for light activities (3-5 lbs.) as tolerated, avoiding active internal rotation activity.
* Exercises
  + AROM Exercises
    - **All planes - limit external rotation to 45˚**
    - **Initiate gentle internal rotation range of motion**
  + Progressive Resistance Exercises (using low weight and Therabands)
    - Continue previous exercises
    - Shoulder internal/external rotation with low resistance Theraband
      * Still limit external rotation to 45˚
  + Body Blade Exercises
    - One-handed grip in neutral position
    - Two-handed grip in front
  + Isometric Theraband exercises with variable resistance
    - Grasp theraband and position arm in desired isometric position and slowly walk away from point of attachment in a controlled manner.
* Low grade glenohumeral joint mobilization
* Ice
* Modalities PRN

**8 Weeks Post-Op**

* **Full PROM/AAROM/AROM exercises, external rotation to 60˚**
* Exercises
  + AROM Exercises
    - **All planes - limit external rotation to 60˚**
  + Progressive Resistance Exercises
    - Continue previous exercises
    - Low resistance/high repetition:
      * Scapular retraction / prone fly / prone extension
      * Forward flexion / abduction, not necessary to push beyond 70˚
  + Advance Body Blade exercises to 90˚ abduction / forward flexion
  + Add Plyoball exercises
* Low grade glenohumeral joint mobilization
* Ice
* Modalities PRN

**10 Weeks Post-OP**

* **Full PROM/AAROM/AROM stretches**
* Exercises
  + Progress to kneeling push-up
  + Advance Plyoball exercises
  + Advance weight and range of motion as tolerated
    - Closed chain exercises preferred
* Glenohumeral joint mobilization as indicated
* Ice
* Modalities PRN

**12 Weeks Post-OP**

* 3 month follow up visit with Dr. Duquin
* Assessment of range of motion and strength
* Patients may use arm for moderate level of activity (10-15 lbs.) as tolerated and progress to full activity as tolerated over next 4 to 6 weeks
* Exercises:
  + Stretch to achieve full ROM with **external rotation at least 60˚**
  + Advance all previous exercise as tolerated
  + Initiation of active internal rotation strengthening exercises as tolerated

**16 Weeks Post-Op**

* Full AROM expected with **external rotation to 75˚**
* Patients continue to progress to use arm for full activity as tolerated
* Advance all previous exercise as tolerated

**24 Weeks Post-Op**

* “6 month” Appointment with Dr. Duquin
* **full activity** as tolerated
* Anticipate next appointment at 1 year post-op and yearly follow up for routine monitoring of total shoulder prosthesis.

***If there are any questions or concerns from you or your physical therapist regarding your shoulder replacement or post-operative rehabilitation please contact Dr. Duquin’s staff at 716-898-4426***