NOVANT HEALTH

Charlotte Shoulder Institute

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DISCHARGE INSTRUCTIONS & PHYSICAL THERAPY INSTRUCTIONS FOR SHOULDER HEMI- OR TOTAL SHOULDER ARTHROPLASTY

Initial recovery after shoulder surgery entails healing, controlling swelling and discomfort and regaining some shoulder motion. The following instructions are intended as a guide to help you achieve these goals until your 1st postoperative visit.

A. Comfort:

Although surgery uses small incisions around the shoulder joint, swelling and discomfort can be present. To minimize discomfort, please do the following:

1. **Ice-** Ice controls swelling and discomfort by slowing down the circulation in your shoulder. Place crushed ice in cloth covered plastic bag over your shoulder for no more than 20 minutes, 3 times a day.
2. **Pain Medication-** Take medications as prescribed, but only as often as necessary. Avoid alcohol and driving if you are taking pain medication.
3. **Sling-** A sling has been provided for your comfort and should be worn as described below.
4. **Driving –** Driving is NOT permitted as long as the sling is necessary.

B. Activities:

1. You are immobilized with a sling and abductor pillow, full time, for approximately one month. Your doctor can tell you when you can discontinue use of the sling at your 1st postoperative visit. The sling may be removed for exercises and for hygiene.
2. Your sling may be removed for gentle PASSIVE range-of-motion (PROM) exercises. (SOMEONE ELSE MOVES YOUR SHOULDER). This should be done 3x a day /15 repetitions (ABDUCTION ONLY – away from your body).
3. Active range-of motion (AROM – you move your shoulder) should be performed for shoulder internal/external rotation. Keep elbow positioned at the side and flexed at 90° so forearm is parallel to the floor. This should be done within a comfortable range until you feel slight pain (3x a day for 15 repetitions). You can shrug your shoulders.
4. While your sling is off you should flex and extend your elbow and wrist – (3x a day for 15 repetitions) to avoid elbow stiffness.
5. Handball squeezes should be done in the sling (3x a day for 15 squeezes).
6. You may NOT move your shoulder by yourself in certain directions. NO active flexion (lifting arm up) or abduction (lifting arm away from body) until Dr. Romanowski or your therapist gives permission. These exercises must be done by someone else (Passive Range of Motion).
7. Physical therapy will begin approximately 3-4 weeks after surgery. Make an appointment with a therapist of your choice for this period of time. You will be given a prescription and instructions for therapy at your 1st post op or 1 month visit. Please take these with you to your first therapy visit.
8. Athletic activities such as throwing, lifting, swimming, bicycling, jogging, running, and stop-and-go sports should be avoided until cleared by Dr. Romanowski.

C. Wound Care:

1. Keep the dressing on, clean and dry until your 1 week post op follow up appointment.
2. Should your dressing come off, you may apply band-aids to the small incisions around your shoulder.
3. You may shower the first day after surgery with the dressings in place.
4. Bathing, swimming, and soaking should be avoided for two weeks after your surgery.

D. Eating:

Your first few meals after surgery should include light, easily digestible foods and plenty of liquids, as some people experience slight nausea as a temporary reaction to anesthesia.

C. Call your physician if:

1. Pain persists or worsens in the first few days after surgery.

2. Excessive redness or drainage of cloudy or bloody material from the wounds. (Clear red tinted fluid and some mild drainage should be expected). Drainage of any kind 5 days after surgery should be reported to the doctor.
3. Temperature elevation greater than 101°.
4. Pain, swelling, or redness in your arm or hand.
5. Numbness or weakness in your arm or hand.
6. Chest pain or difficulty breathing.

D. Return to the office

Your first return to the office should be within the first 1-2 weeks after your surgery. Call Dr. Romanowski's office to make your first postoperative appointment.

DISCHARGE INSTRUCTIONS & PHYSICAL THERAPY INSTRUCTIONS FOR SHOULDER HEMI- OR 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 a total shoulder arthroplasty (TSA) or hemiarthroplasty (humeral head replacement, HHR). It is not intended to be a substitute for appropriate clinical decision-making regarding the progression of a patient's postoperative course. The actual post surgical physical therapy management must be based on the surgical approach, physical exam/findings, individual progress, and/or the presence of postoperative complications. If a clinician requires assistance in the progression of a patient post-surgery, consult with the referring surgeon.

Please Note:
Patients with a concomitant repair of a rotator cuff tear and/or a TSA/HHR secondary to fracture or cuff arthropathy should be progressed to the next phase based on meeting the clinical criteria (not based on the postoperative time frames) as appropriate in collaboration with the referring surgeon. The given time frames are an approximate guide for progression, achieving the clinical criteria should guide the clinician and patient through this protocol.
Joint Specific Outcome Measure: Upon the start of postoperative care the patient and therapist complete the Simple Shoulder Test and the American Shoulder and Elbow Surgeon's Shoulder Evaluation Short Form during their first ambulatory visit. These assessment measures are then completed every 30 days and upon discharge from physical therapy, in conjunction with routine reevaluations to assist in assessing progress.

Passive Range of Motion (PROM): PROM for all patients having undergone a TSA/HHR should be defined as ROM that is provided by an external source (therapist, instructed family member, or other qualified personnel) with the intent to gain ROM without placing undue stress on either soft tissue structures and/or the surgical repair.
PROM is not stretching!!!!!!!

<u>Phase I – Immediate Post Surgical Phase:</u>

Goals:

- Allow healing of soft tissue
- Maintain integrity of replaced joint
- Gradually increase passive range of motion (PROM) of shoulder; restore active range of motion (AROM) of elbow/wrist/hand
- Reduce pain and inflammation
- Reduce muscular inhibition
- Independent with activities of daily living (ADLs) with modifications while maintaining the integrity of the replaced joint.

Precautions:

- Sling should be worn continuously for 3-4 weeks
- While lying supine, a small pillow or towel roll should be placed behind the elbow to avoid shoulder hyperextension / anterior capsule stretch / subscapularis stretch. (When lying supine patient should be instructed to always be able to visualize their elbow. This ensures they are not extending their shoulder past neutral.) – This should be maintained for 6-8 weeks post-surgically.
- Avoid shoulder AROM.
- No lifting of objects
- No excessive shoulder motion behind back, especially into internal rotation (IR)
- No excessive stretching or sudden movements (particularly external rotation (ER))
- No supporting of body weight by hand on involved side
- Keep incision clean and dry (no soaking for 2 weeks)
- No driving for 3 weeks

Post-Operative Day (POD) #1 (in hospital):

- Passive forward flexion in supine to tolerance
- Gentle ER in scapular plane to available PROM (as documented in operative note) – usually around 30°
  (Attention: DO NOT produce undue stress on the anterior joint capsule, particularly with shoulder in extension)
- Passive IR to chest
- Active distal extremity exercise (elbow, wrist, hand)
- Pendulum exercises
- Frequent cryotherapy for pain, swelling, and inflammation management
- Patient education regarding proper positioning and joint protection techniques

Early Phase I: (out of hospital)

- Continue above exercises
- Begin scapula musculature isometrics / sets (primarily retraction)
- Continue active elbow ROM
- Continue cryotherapy as much as able for pain and inflammation management

Late Phase I:

- Continue previous exercises
- Continue to progress PROM as motion allows
- Begin assisted flexion, elevation in the plane of the scapula, ER, IR in the scapular plane
- Progress active distal extremity exercise to strengthening as appropriate

Criteria for progression to the next phase (II):

If the patient has not reached the below ROM, forceful stretching and mobilization/manipulation is not indicated. Continue gradual ROM and gentle mobilization (i.e. Grade I oscillations), while respecting soft tissue constraints.

- Tolerates PROM program
- Has achieved at least 90° PROM forward flexion and elevation in the scapular plane.
- Has achieved at least 45° PROM ER in plane of scapula
- Has achieved at least 70° PROM IR in plane of scapula measured at 30° of abduction

Phase II – Early Strengthening Phase
(Not to begin before 4-6 Weeks post-surgery to allow for appropriate soft tissue healing):

Goals:

- Restore full passive ROM
- Gradually restore active motion
- Control pain and inflammation
- Allow continue healing of soft tissue
- Do not overstress healing tissue
- Re-establish dynamic shoulder stability

Precautions:

- Sling should only be used for sleeping and removed gradually over the course of the next 2 weeks, for periods throughout the day.
- While lying supine a small pillow or towel should be placed behind the elbow to avoid shoulder hyperextension / anterior capsule stretch.
- In the presence of poor shoulder mechanics avoid repetitive shoulder AROM exercises/activity against gravity in standing.
- No heavy lifting of objects (no heavier than coffee cup)
- No supporting of body weight by hand on involved side
- No sudden jerking motions

Early Phase II:

- Continue with PROM, active assisted range of motion (AAROM)
- Begin active flexion, IR, ER, elevation in the plane of the scapula pain free ROM
- AAROM pulleys (flexion and elevation in the plane of the scapula) – as long as greater than 90° of PROM
- Begin shoulder sub-maximal pain-free shoulder isometrics in neutral
- Scapular strengthening exercises as appropriate
- Begin assisted horizontal adduction
- Progress distal extremity exercises with light resistance as appropriate
- Gentle glenohumeral and scapulothoracic joint mobilizations as indicated
- Initiate glenohumeral and scapulothoracic rhythmic stabilization

- Continue use of cryotherapy for pain and inflammation.

Late Phase II:

- Progress scapular strengthening exercises

Criteria for progression to the next phase (III):

If the patient has not reached the below ROM, forceful stretching and mobilization/manipulation is not indicated. Continue gradual ROM and gentle mobilization (i.e. Grade I oscillations), while respecting soft tissue constraints.

- Tolerates P/AAROM, isometric program
- Has achieved at least 140° PROM forward flexion and elevation in the scapular plane.
- Has achieved at least 60+° PROM ER in plane of scapula
- Has achieved at least 70° PROM IR in plane of scapula measured at 30° of abduction
- Able to actively elevate shoulder against gravity with good mechanics to 100°.

Phase III – Moderate strengthening

(Not to begin before 6 Weeks post-surgery to allow for appropriate soft tissue healing and to ensure adequate ROM):

Goals:

- Gradual restoration of shoulder strength, power, and endurance
- Optimize neuromuscular control
- Gradual return to functional activities with involved upper extremity

Precautions:

- No heavy lifting of objects (no heavier than 3 kg.)
- No sudden lifting or pushing activities
- No sudden jerking motions

Early Phase III:

- Progress AROM exercise / activity as appropriate
- Advance PROM to stretching as appropriate
- Continue PROM as needed to maintain ROM
- Initiate assisted shoulder IR behind back stretch
- Resisted shoulder IR, ER in scapular plane
- Begin light functional activities
- Wean from sling completely
- Begin progressive supine active elevation strengthening (anterior deltoid) with light weights (0.5-1.5 kg.) at variable degrees of elevation

Late Phase III:

- Resisted flexion, elevation in the plane of the scapula, extension (therabands / sport cords)

- Continue progressing IR, ER strengthening
- Progress IR stretch behind back from AAROM to AROM as ROM allows
  (Pay particular attention as to avoid stress on the anterior capsule.)

Criteria for progression to the next phase (IV):
If the patient has not reached the below ROM, forceful stretching and mobilization/manipulation is not indicated. Continue gradual ROM and gentle mobilization (i.e. Grade I oscillations), while respecting soft tissue constraints.

- Tolerates AA/AROM/strengthening
- Has achieved at least 140° AROM forward flexion and elevation in the scapular plane supine.
- Has achieved at least 60+° AROM ER in plane of scapula supine
- Has achieved at least 70° AROM IR in plane of scapula supine in 30° of abduction
- Able to actively elevate shoulder against gravity with good mechanics to at least 120°.

Note: (If above ROM are not met then patient is ready to progress if their ROM is consistent with outcomes for patients with the given underlying pathology).

Phase IV – Advanced strengthening phase
(Not to begin before 12 Weeks to allow for appropriate soft tissue healing and to ensure adequate ROM, and initial strength):

Goals:

- Maintain non-painful AROM
- Enhance functional use of upper extremity
- Improve muscular strength, power, and endurance
- Gradual return to more advanced functional activities
- Progress weight bearing exercises as appropriate

Precautions:

- Avoid exercise and functional activities that put stress on the anterior capsule and surrounding structures. (Example: no combined ER and abduction above 80° of abduction.)
- Ensure gradual progression of strengthening

Early Phase IV:

- Typically patient is on a home exercise program by this point to be performed 3-4 times per week.
- Gradually progress strengthening program
- Gradual return to moderately challenging functional activities.

Late Phase IV (Typically 4-6 months post-op):

- Return to recreational hobbies, gardening, sports, golf, doubles tennis

Criteria for discharge from skilled therapy:

- Patient able to maintain non-painful AROM
- Maximized functional use of upper extremity
- Maximized muscular strength, power, and endurance
- Patient has returned to advanced functional activities.