Proximal Humerus Fracture Surgery

Physical Therapy Protocol

Goals of Rehabilitation

- **Promote Bone Healing:** Protect the surgical repair to allow proper bone and soft-tissue healing.
- **Restore Function:** Gradually regain shoulder range of motion (ROM), strength, and functional use.
- **Avoid Complications:** Minimize stiffness, pain, and improper loading during recovery.

General Guidelines

- Rehabilitation is divided into three phases.
- **Early gentle motion** is encouraged to maintain **mobility** while avoiding stress on the repair.
- **Resistance exercises** are typically delayed until bone and soft-tissue healing is secure (around 6 weeks).
- Adjustments to the protocol may be necessary based on **individual progress**.

Pain Management Tips

- Apply ice packs for 15–20 minutes every 2–3 hours during the first week to reduce swelling and discomfort.
- Follow Dr. Trevor's pain medication instructions. See full details at:

DrTrevor.com/pain

- Avoid **activities that cause sharp or increasing pain**. Report persistent or severe pain to your surgeon.
- Incorporate **deep breathing and relaxation exercises** to reduce tension and improve comfort.

Phase 1: Immobilization and Gentle Motion (Approximately First 3 Weeks)

Goals:

- Protect the surgical repair to promote healing.
- Initiate gentle motion to prevent stiffness and maintain circulation.

Restrictions:

- Immobilization or support of the shoulder for **2–3 weeks**.
- Avoid external rotation (ER) for the first 6 weeks.

Activities:

- Pendulum exercises: Perform daily to maintain shoulder mobility.
- Gentle assisted motion: Initiate pain-free movements as tolerated.

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- Scapular shrugs and pinches: Maintain scapular mobility and posture.
- Posture correction: Maintain good alignment to avoid compensatory movements.
- Avoid heavy lifting, pushing, or pulling (nothing heavier than a glass of water).

Phase 2: Active-Assisted Motion (Weeks 3–9)

Goals:

- Progress to active-assisted motion and functional use of the shoulder.
- Gradually reduce dependence on assistance for ROM.

Restrictions:

• No abduction against resistance until after 6 weeks.

Activities:

- Active-assisted forward flexion and abduction: Gradually increase range as tolerated.
- Gentle functional use: For basic activities of daily living (ADLs) from weeks **3–6** (e.g., dressing, eating).
- Reduce assistance during ROM exercises: Start reducing assistance from week 6 onward.
- **Posture and scapular stabilization exercises:** Strengthen **scapular support** during shoulder motion.

• Use heat therapy before exercises to loosen tight muscles and ice after exercises to minimize inflammation.

Criteria to Progress:

- Clinical evidence of bone healing.
- Fragments move as a unit without displacement on x-rays.

Phase 3: Strengthening and Functional Recovery (After Week 9)

Goals:

- Restore full range of motion.
- Build **strength**, **endurance**, **and functional capacity** for daily activities.

Activities:

- Isotonic strengthening exercises: Add concentric and eccentric strengthening to build muscle endurance and power.
- **Progressive resistance exercises:** Begin **light resistance** (bands or weights) and **increase gradually** as tolerated.
- Functional strength training: Focus on activities relevant to daily life or occupational needs.
- Passive stretching: If joint stiffness persists, incorporate stretching with a physiotherapist.
- Balance and proprioception exercises: Include ball tosses or closed-chain exercises to restore coordination.

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Criteria to Progress:

- Evidence of solid bone healing on x-rays.
- Pain-free performance of strengthening exercises with controlled form.

Additional Notes

Patient Communication:

• Ensure the patient understands the **importance of avoiding** overstressing the shoulder in early phases to protect the surgical repair.

Pain and Swelling Management:

• If **pain or swelling increases**, reduce activity level and consult the **surgeon or therapist**.

Progress Monitoring:

• Include **regular x-rays** and **clinical evaluations** to confirm healing progress.

Patient Education:

- Encourage **compliance with home exercises** and provide **clear instructions** (with visuals when possible).
- Provide a **contact point** for patients if they have **questions** or **unexpected recovery issues**.

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Final Considerations

- Follow all precautions to ensure a smooth recovery.
- Gradual strengthening and controlled movement will maximize surgical success.
- Reach out to your healthcare provider if you experience concerns or setbacks.

How to Use This Guide

- Adhere to the outlined progression phases.
- Monitor pain and ROM improvements.
- Communicate any concerns to your surgeon or therapist.