Humerus Fracture Surgery Intramedullary Nail

Physical Therapy Protocol

Phase I – Protection and Early Motion (Weeks 0-6)

Goals:

- Prevent stiffness
- Decrease swelling and inflammation
- Protect rotator cuff

Precautions:

- Sling use for a minimum of 2 weeks; may discontinue after 2 weeks if comfortable
- Weight bearing/lifting restriction: no more than 5 lbs with the operative upper extremity

Range of Motion (ROM):

- Forward elevation: limit to 90°
- Abduction: limit to 45°
- External rotation: limit to 30°

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- Passive, active-assisted, and active ROM all allowed within limits
- Encourage elbow, wrist, and hand ROM
- Perform gripping exercises regularly

Therapeutic Modalities:

• Electrical stimulation, cryotherapy, and swelling control modalities as needed

Mobility:

• May begin immediate use of a walker using the operative upper extremity if necessary

Phase II – Progressive Range of Motion and Early Strengthening (Weeks 6–12)

Goals:

- Improve swelling and pain
- Restore full ROM
- Initiate strengthening

Precautions:

• Sling should be fully discontinued by this phase

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Range of Motion:

• Progress as tolerated in all planes

Strengthening:

• Begin periscapular and rotator cuff strengthening gradually

Weight Bearing:

 Weight bearing as tolerated; no specific lifting restrictions but avoid sudden or excessive loads

Home Program:

• Emphasize consistency with home exercise program (HEP)

Modalities:

• Continue as needed for swelling, pain, and muscle stimulation

Additional Therapy Options:

• Aquatic therapy permitted if accessible

Phase III – Functional Strengthening and Return to Activity (Weeks 12+)

Goals:

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- Restore strength across all planes
- Return to prior functional level, work, or sport

Activities:

- Continue strengthening in all directions
- Incorporate functional training and sport/work-specific exercises
- Address any deficits in daily living activities

HEP:

• Transition to a long-term home program upon discharge from PT