## Physical Therapy Protocol Calcaneus Fracture Open Reduction Internal Fixation (ORIF)

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RN pre-screen for "red flag" patient referral to PT pre-op No previous ortho surgery - Bilateral surgery - Previous failure - over 65 - co-morbidities including UE injury/dysfunction  PT pre-op visit - Assess current level of function (ADLs/Mobility), ability to manage post-op restrictions, use of assistive devices Screen PMH, condition of UEs, and contralateral LE - Home environment: modifications needed? Assistance available? SNF or HH needs.  NWB on surgical foot.  RN to mobilize pt to beds commode on POD 1 with PNC's* in place. Leg elevated 8-10 inches from bed-level. Foot in bulky "Jones" split Make sure to fully straigh knees periodically. Gentle A/AA/PROM toes intrinsics; stretch toes int dorsiflexion at MTPs with MTs stabilized.  - POD 2-3 Ambulation wi PT. May be up in chair fo limited time at MD discretion. Keep foot elevated while sitting.	2-6 Weeks	C 40 Weeks		
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- Teach post-op mobility restrictions - Gait training: NWB on surgical foot unless otherwise indicated. Must be able to transfer and walk maintaining precautions.  Examples of potential gait devices: Crutches, walker, wheelchair, knee scooter, "peg-leg"  Patient to obtain equipment and bring to hospital.  Limit time with extremity dependent.  Family/caregiver training needed.  Sample exercises for hor program: Sidelying leg lif affected leg, prone leg liff (hip extension), supine his knee flexion/extension.  *peripheral nerve catheters.	2- to 3-week MD visit: Sutures out, change to removable posterior foot splint.  NWB on surgical foot.  - Patient teaching: Edema control. Desensitization techniques prn. Gentle scar massage.  - Measure range of motion.  - Continue toe/intrinsic exercises.  Add: A/AA/PROM ankle, STJ with gentle overpressure OK.  - Continue HEP with hip, knee, UE exercises and isometrics/general body strengthening and conditioning.  - Patient will be NWB on affected foot until at least 12 weeks post-op.  Sample exercises for home program: Ankle pumps, alphabets, figure 8's, inversion/eversion.	6- to 7-week MD visit with X-ray.  NWB on surgical foot, posterior splint.  - Measure range of motion.  - Pt. teaching: Scar mobilization.  - Edema management, compression stocking.  - Continue/reinforce H.E.P. A/AA/PROM ankle, STJ, toes. Mild overpressure/ gentle joint mobilization (grade 1-2) OK.  - OK to use light weight resistance band, start belt-type calf stretch.  - Home exercise program, strengthening, conditioning uninvolved extremities.  - Swimming OK but not walking in water. No aggressive kicking.	12-week visit, x ray.  Typically start Progressive WB per MD written orders.  -Gait training: Gradual increase in weight bearing (in shoe) starting at 20 lbs, increase 20 lbs every 2-3 days over 1 month period to FWB. Joint depression type calc. fracture hold at 40 lbs for 1 month before progressing.  - If patient develops increased pain or swelling, back off to lesser weight and gradually build back up.  Over the counter orthotic (Spenco, Superfeet) may be helpful.  - OK to use resistance band for ankle, STJ exercises.  - Soft tissue/scar mobilization.  - Desensitization techniques.  - Gentle joint mobilization.  - When comfortably FWB with good gait pattern wean* off assistive device (by 16-17 weeks). Shoe modification if needed.	4 months:  - Progression of gait, advanced balance and proprioception activities.  No Dead Lift-/Clean and Jerk-type weight lifting after 6 months when cleared by MD.  Sample exercises for home exercise program: Progressive calf stretching. Progressive strengthening using elastic band. Single leg stance activities. Stepups, stairs. Foam standing/wobble board/Baps.  6 months: - Ankle, subtalar stretching Joint mobilization.  - Advanced balance and gait training, maximize quality of gait.  - Higher impact activities OK.  - Ankle, STJ, strengthendurance training.  - Functional assessment: e.g., timed single leg stance balance and reach, heel raise, squats, step ups.
- General post-op exercise program: ROM, strengthening for UEs,	-Pt and caregivers to monitor resting foot posture strictly in neutral		- Begin balance and proprioceptive training when	- Assess shoes/orthotics.

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