

Trauma Rehabilitation

Surgery Performed:

- Depending on severity and location of the fracture, may be fixed with ORIF.

Postoperative Precautions:

Weight-Bearing (WBing) Restrictions

- Week 0-6 – NWB, especially if non-ORIF
- Week 6 – Start to remove boot in PT
- Week 12 – Resume normal WBing (D/C boot)

Avoid unnecessary walking or standing for the first week to control swelling and pain

If fixed with ORIF, rehab will be more aggressive.

If not fixed with ORIF, the patient will be immobilized for up to 6 weeks.

Progression along this protocol will be largely dependent on communication with Dr. Burgess.

<p>Immediate Post-op/Early Rehab Phase (Week 0-6)</p>	<p><u>Gait/Weight Bearing</u> – teach proper gait following precautions</p> <p><u>ROM</u> – restore normal ROM of non-involved joints</p> <ul style="list-style-type: none"> • Ankle fx ORIF: AROM to tolerance in all planes • Ankle fx non-ORIF: pain free AROM in all planes • Metatarsal/foot fx: AROM of ankle to tolerance <p><u>Strength</u> – target knee and hip impairments with OKC exercises</p> <ul style="list-style-type: none"> • Ankle ORIF: if ROM is progressing, may begin Theraband strengthening at week 3 <p><u>Edema Management</u> – elevate above the heart and ice as much as possible to control swelling</p> <p><u>Modalities</u> TENS, ice, and elevation used for pain and swelling</p>	<p>Goals:</p> <p>Control swelling/edema</p> <p>Normal ROM (non-involved joints)</p> <p>Safe/functional gait (following WBing restrictions)</p>
<p>Intermediate Rehab Phase (Week 6-9)</p>	<p><u>Gait/Weight Bearing</u> May progress to WBAT pending clearance from MD Initiate weight shifts when allowed</p> <p><u>ROM</u> – address any knee and/or hip impairments Regain full PROM/AROM of ankle and foot joint</p> <p><u>Strength</u> – target knee and hip impairments with OKC exercises Avoid undue stress to surgery with location of resistance Achieve full AROM of ankle/foot prior to adding resistance</p> <p><u>Balance/Proprioception</u> Wobble board bilateral and even ground tandem stance</p> <p><u>Functional activities</u> Begin conditioning activities (bike, treadmill)</p> <p><u>Manual Therapy</u> Subtalar and talarcrural joint mobilizations Soft tissue massage to incision and calf Desensitization of incision/surgical area</p> <p><u>Modalities</u> TENS, ice, and elevation used for pain and swelling</p>	<p>Goals:</p> <p>Full AROM hip, knee, and ankle</p> <p>Full AROM phalanges</p> <p>Foot and ankle strength 4/5 SLS (% age match norm*) With boot 75%</p> <p>FAAM >70%</p>

<p>Late Rehab Phase (Week 9+)</p>	<p><u>Gait/Weight Bearing</u> Normalize gait pattern Emphasize proper mechanics/gait at all times Assess for need of orthotics <u>ROM</u> – address remaining impairments to achieve full AROM <u>Strength</u> – Increase intensity of ankle and foot strengthening Sport/work specific activities <u>Balance</u> – progress balance and overall stability of involved LE <u>Manual Therapy</u> Continue with joint mobilizations and soft tissue massage Progress to variable planes of motion for mobilizations <u>Modalities</u> TENS, ice, and elevation used for pain and swelling</p>	<p>Goals: Figure 8 swelling measure Equal to contralateral Full strength throughout LE 5/5 Normalize gait SLS (% age match norm*) Without boot 100% FAAM >90% Return to work and/or sport</p>
---------------------------------------	---	--

*Age matched norms for unilateral balance²:

40-49yo = 40sec, 50-59yo = 35sec, 60-69yo = 25sec, 70-79yo = 15sec, 80-89yo = 6sec

Please remember that this protocol outlines guidelines for treatment and the most common exercises utilized following surgery. Sound clinical judgment and impairment based approach, with precautions in mind, should be used in progression of exercises.

References:

1. Logerstedt DS and Smith HL. Postoperative management of the Foot and Ankle. *Postoperative Management of Orthopaedic Surgeries*. APTA Independent Study Course 15.2.2. 2005.
2. Springer BA, Marin R, Cyhan T, Roberts H, Gill NW. Normative Values for the Unipedal Stance Test with Eyes Open and Closed. *Journal of Geriatric Physical Therapy* 30; 1:07 pg 8-15.
3. Brotzman, S.B. and Brasel, J. "Foot and Ankle Rehabilitation," Clinical Orthopedic Rehabilitation. Mosby, 1996; 258-263.
4. Sandhill Orthopaedic. (n.d.). *Ankle/foot fracture*. Retrieved from <http://www.sandhillorthopaedic.com/protocols/AnkleFootProtocol/AnkleFootFracture.pdf>