ANDREWS INSTITUTE
ORTHOPAEDICS & SPORTS MEDICINE
An Affiliate of Baptist Health Care

REHABILITATION PROTOCOL
ANKLE FRACTURE OPEN REDUCTION INTERNAL FIXATION (ORIF)

GENERAL GUIDELINES / PRECAUATIONS

- Non-weight bearing while in splint for 6 weeks. Patient will be in cast or boot during this time. From week 6-8 it is suggested that patient wear a walking boot before transitioning to running shoe.
- This protocol, as well as most others, is a general guideline. Patients should not be progressed to the next phase until they demonstrate proper form with all activities and all criteria are met in the current phase.
- When clinically appropriate, properly assess the whole body and incorporate treatment for loss of mobility and stability. Not doing so can prevent optimal outcomes and increase risks of future injuries.

IMMEDIATE PROTECTION PHASE (Post-Op Days 1 – Week 6)

- **Goals**
  - Protect healing tissue
  - Control pain and swelling
  - Control weight bearing forces
  - Independent transfers and ambulation

- **Precautions:**
  - Weight-bearing: NWB with optimal ambulatory assistive device for 6 weeks
  - Splint/Brace: Cast or boot for 6 weeks

- **Treatment (Days 1-14)**
  - Transfer and gait training with assistive device, NWB on surgical lower extremity
  - Patient education and independent HEP
  - 4-way SLR
  - AROM Hip and Knee
  - Lower extremity stretching – hamstring, quads, ITB, Hip flexors as needed
  - Elevation and Cryotherapy

- **Treatment (Days 15-42)**
  - Continue appropriate previous exercises
  - Ankle AROM
    - Ankle pumps, alphabet
  - Gastroc stretch with towel
  - Seated BAPS
  - Stationary bicycle (in walking boot)
  - 4-way isometric ankle strengthening
  - Aquatic Therapy
  - NWB activities – deep-water running
  - Scar massage / mobilization
  - Modalities as needed

MODERATE PROTECTION PHASE (Weeks 7-12)

- **Goals:**
  - Normal AROM/PROM
  - Normal Strength
  - Normal Gait
  - Normal Balance

- **Precautions**
  - Weight-bearing: WBAT using assistive device at least 2 weeks and progress to FWB. Discharge assistive device when gait is normal and edema is controlled.
  - Splint/Brace: Walking boot for ambulation x 2 weeks and transition into running shoe.

- **Treatment:**
  - Continue previous exercises as appropriate
  - Isotonic theraband exercises x 4 – gradually increase resistance
  - Proprioception training
    - Standing balance, single leg stance activities, medicine ball progressions
  - Heel Raises
    - Double leg and progress to single leg as tolerated
  - CKC Exercises
    - Mini-squats, leg press/total gym, double leg heel-raises, forward/retro/lateral step-downs, Mini-band walking (forward, backward, lateral)
  - Aerobic Conditioning
    - Elliptical, Stairmaster
  - Aquatic Therapy
    - Deep-water training
    - Aquatic treadmill (Shoulder to chest level running at 10 weeks)

MINIMAL PROTECTION PHASE (Months 4-6)

- **Goals:**
  - Walk 2 miles at 15 minute/mile pace

- **Criteria for entering Advance strengthening:**
  - Minimum 4/5 Ankle Manual Muscle Testing
  - Symmetrical pain-free AROM
  - Pain-free ADL activities

- **Treatment:**
  - Continue previous exercises as appropriate
  - Aquatic Therapy – unrestricted activities
  - Progress to dry land running as tolerated
  - Plyometric Drills
    - Bilateral progressing to unilateral activities
  - Advance impact and functional progressions
  - Sport specific drills with brace as needed

DISCHARGE TESTING / PLANNING. RETURN TO SPORT

- Based on a patient's age, gender, and level that they are returning to (i.e. recreational, amateur, professional) a decision is made to endorse their return to sport/ higher level activity or to ask the patient to refrain from doing so. Currently our criterion includes, but is not always limited to the following.
    - Demonstrate quality and symmetrical movement throughout the body evaluated with comprehensive movement screen or assessment process.
    - Symmetrical and acceptable comprehensive scores on CKC LE testing
- Biomechanical assessment of their performance helps safe return to sport / higher level activity. Patient's may be videoed and analyzed doing activities such as running, jumping, hitting or throwing to see if sound body mechanics are being utilized.
- Not all patients who have undergone ankle fracture ORIF are candidates for functional testing. Those undergoing these tests should be chosen with proper consideration given to what they plan to return to and their general fitness level.
- No matter how well a patient is doing with return to sport testing it is prudent to remember how important time is to full healing and safe return to sport / activity.
- Patients often schedule periodically during this phase to assess their progress and properly change their program until they are deemed safe to return to all activities.