

# **Ankle Fracture ORIF Rehabilitation Protocol**

# Mark Ayzenberg, MD

# PHASE I (Week 0-6) - Maximum Protection

- Non-weight bearing x 6 weeks
- Alleviate acute pain and swelling
- Crutch Training
- Multi-plane hip, quad, hamstring, core and upper extremity strengthening permitted
- Toe curls and spreads

# PHASE II (Weeks 6-8) - Range of Motion and Early Strengthening

#### Goals:

- Decrease swelling
- Increase ROM
- Increase strength hip/knee
- Improve general conditioning

### Plan:

- Transition from crutches to WBAT in boot without assist
- Continue core, hip strengthening and non-impact cardiovascular training
- ROM
  - Strong emphasis on restoring full dorsiflexion
- Isometric and early isotonic ankle
- Foot intrinsic strengthening
- Bilateral progression to unilateral squat, step and matrix progression
- Proprioceptive and balance training
- Joint mobilizations and soft tissue treatments for swelling, mobility, healing

## PHASE III (Weeks 8-12) – Progressive Strengthening

### Goals:

- Full, painless ROM
- Progress Strengthening
- Continue general conditioning

#### Plan:

• Full symmetric ROM



- Normal gait
- Advance ankle and foot intrinsic strengthening, avoid impact and cutting until week 12
- Pool running, progressing to dry land
- Linear progressing to lateral and rotational functional movements
- Bilateral progressing to unilateral plyometric activity
- Continue with mobilizations
- Proprioception

# PHASE IV (Weeks 12-16) - Advanced Strengthening

### Goals:

• Return to Sport/full activities

#### Plan:

- Advance impact, proprioception and functional training
- Sport-specific drills on field or court with functional brace (to be worn first year of competition)
- Sport test at 3-4 months based on progress

Some suggested therapeutic exercises for closer to the end of rehab protocol *if age and sport-appropriate* once patient judged ready and safe by physical therapist:

- Low amplitude low velocity agility drills: forward and backward skipping, side shuffle, skater's quick stepping, carioca, cross overs, backward jog, forward jog
- Closed chain strengthening for quadriceps and glutes progressing from double leg strengthening to single leg strengthening: lunge progressions and single leg squat progressions
- Single leg balance exercises and progressions, progressing from stationary to deceleration in to holding posture and position
- At approximately 12-14 weeks initiate low amplitude landing mechanics: med ball squat catches, shallow jump landings, chop and drop stops, etc
- Hip strengthening especially oriented at neuromuscular control in prevention of hip adduction at landing and stance
- Core strength and stabilization especially orientated at preventing frontal plane trunk lean during landing and single leg stances
- Unanticipated movement control drills, including cutting and pivoting
- Agility ladder drills
- Stretching for patient specific muscle imbalances