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## Ankle and Foot Fusions and Bone Grafts Rehabilitation Protocol

This protocol provides you with general guidelines for initial stage and progression of rehabilitation according to specified time frames, related tissue tolerance and directional preference of movement. Specific changes in the program will be made by the physician as appropriate for the individual patient.

REMEMBER: It can take up to a year to make a full recovery, and it is not unusual to have intermittent pains and aches during that time!

### **\*General Guidelines: Expected period before you will be Full weight bearing:**

Ankle joint: 8-16 weeks

Lisfranc: 8-10 weeks

Subtalar: 8 - 10weeks

Triple arthrodesis: 8-10 weeks

Great toe fusions: WB as soon as comfortable as long as you walk on heel or flat-footed

### **Phase I: Weeks 1-2**

#### **Goals**

- Rest and recovery from surgery
- Control swelling and pain
- Increase ADL (activities of daily) with safe use of crutches/Roll-About

#### **Guidelines**

- Cast NWB(Non weightbearing)

Can stand on leg when showering, but don't walk

- Sutures removed @ 10 -14 days
- Encourage ADL
- Education on proper crutch use
- Rest and elevation to control swelling and pain
- Education: surgical procedure, anatomy, healing time, rehab phases
- Hip: AROM (active range of motion)
- Knee: AROM

### **Phase II: Weeks 3-8**

#### **Goals**

- Maintain hip and knee ROM
- Improve core, hip and knee strength

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- Safe use of crutches/Roll-About
  - Protect fusion site

### **Guidelines**

- Fiberglass cast or Cam boot: still NWB
- Elevate to control swelling
- Education: protect graft
- Can WB when Standing to do ADL
- Core exercises
  - recruit abdominals
  - bridging
  - ball reach
- Hip: AROM
  - strength: clam side lift glut max SLR (Straight leg raise)
- Knee: AROM
  - strength: theraband press
- Ankle: depending on surgeon's evaluation, AROM with ankle DF/PF, (dorsiflex/plantarflex) inversion/eversion may be suggested at 6-8 weeks
- Stretching: gluts, piriformis, rectus femoris, hamstrings
- X-ray taken week 6-7

### **Phase III: Weeks 8-10**

#### **Goals**

- FWB(full weight bearing) in walker boot
- Increase core, hip, and knee strength

#### **Guidelines**

- Gradual FWB in walker boot depending upon x-ray findings \*greatly depends on joint fused\*
- Elevation for swelling control
- Stationary bicycle
- Continue core, hip and knee strengthening

### **Phase IV: Weeks 11-12**

#### **Goals**

- FWB without boot

#### **Guidelines**

- Wean from walker boot \*depending on joint fused\* (may begin earlier based on surgeon's evaluation)

Might be provided with an ankle brace

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- Massage to decrease edema
  - AROM: ankle DF/PF, inversion/eversion
  - Muscle stimulation to intrinsics, invertors/evertors as required
  - Start gait retraining
  - Progress exercises to standing
  - Leg press
  - X-ray taken in week 12

### **Phase V: Weeks 13-15**

#### **Goals**

- Full ROM non-fused joints
- Near full strength
- Optimal gait pattern

#### **Guidelines**

- X-ray shows good healing at graft site
- AROM and PROM at ankle and non-fused joints
- Stretches: calf, rectus femoris, hamstrings, glut, piriformis
- Manual mobilization to any restricted nonfused joints of the ankle, foot and toes
- Gait retraining to optimal mechanics with fusion
- Strength training ankle
  - toe raises
  - theraband NWB DF, inv/eversion
  - WB inversion/eversion
- Proprioceptive training: progression
  - single leg even ground
  - double leg stance on wobble board or Sissel
  - single leg stance on wobble board or Sissel

### **Phase VI: Weeks 16**

#### **Goals**

- Full strength
- Full function for work

#### **Guidelines**

- Strength training: work specific
- Proprioceptive training: to level required with work
- Continue gait retraining if required
- Orthotics or shoe modifications if needed to improve gait pattern