SIDELINE ORTHOPEDICS AND SPORTS MEDICINE
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FIFTH METATARSAL ORIF

Surgical description

Fifth metatarsal open reduction internal fixation is a surgical procedure utilized to treat a patient with a fifth metatarsal fracture. When a fifth metatarsal ORIF is performed, the patient is prepped and draped in the appropriate sterile fashion. An incision starting at the base of the fifth metatarsal is made inferior to the peroneous brevis tendon. A guide pin is then placed directly down the canal of the fifth metatarsal. This is done with both oblique and lateral x-ray with mini C-arm. The fifth metatarsal is then overdrilled and a stainless steel partially threaded cannulated screw is placed into the metatarsal.

Phase I
(1-4 Weeks)

Clinical Goals

- Restore full ankle and MTP ROM
- Control swelling
- Wean off crutches to FWB with Aircast walking boot
- Full Achilles/calf flexibility
- Begin strengthening

Testing

- Bilateral MTP and ankle ROM (DF, PF, INV, EV)
- Strength (DF, PF, INV, EV)

Exercises

- MTP, ankle, and subtalar A/PROM
- Towel Achilles/calf stretch
- Resistive thera-tubing inversion, eversion, dorsiflexion, and plantarflexion
- Seated toe raises progressing to bilateral standing toe raises
- Toe curls with towel\proprioception retraining in boot
- Gait training with instruction on how to wean off crutches
- Bike with Aircast boot
- Desensitization massage
- Cryocuff

Clinical Follow-up

- The patient will return to both the physician and physical therapist at 1, 2, and 6 weeks post-operative. Patient fitted for carbon fiber plate.

Phase II
(4-8 Weeks)

Clinical Goals

- Restore full ROM 4 directions (DF, PF, INV, EV) compared to non-involved side
- Restore ankle strength 4 directions (DF, PF, INV, EV) compared to non-involved side
- Restore Achilles/calf flexibility compared to non-involved side
- Wean out of boot into carbon fiber plate
- Begin proprioception activities
- Begin functional progression at approximately 6 weeks post-operative

Testing

- Bilateral ROM 4 directions (DF, PF, INV, EV)
- Bilateral strength 4 directions (DF, PF, INV, EV)
- Achilles flexibility
- Single leg balance

Exercises

- Wean out of boot to shoe with carbon fiber
- Strengthening resistive tubing 4 directions (DF, PF, INV, EV)
- Calf stretch with progression to aggressive Achilles tendon stretch off step
- Double leg toe raises should be progressed to single toe raise in shoe with plate
- Slightly aggressive peroneal strength
- Proprioception exercise- one foot balance (eyes open, eyes closed)- in shoe with plate
  - One foot balance with opposite leg hip tubing (flexion, extension, abduction, adduction)
- Begin stairmaster/elliptical-when able to bike 30 minutes, 4x/wk with carbon fiber plate and no pain
- A functional progression can be initiated around 6 wks post-op

Clinical Follow-up

- The patient will follow-up at 6 weeks post-op. Follow-up visits after the 6 week visit are determined by the patient's success in meeting the goals for full ROM and good ankle strength. If goals are being met, follow-up is accomplished by tele-medicine consultations with the patient and/or the athletic trainer at the patient's school, if applicable.

Phase III
(8-12 Weeks)

Clinical Goals

- High-level strength
- Pass a sport specific functional progression

Testing

- Bilateral strength 4 directions (DF, PF, INV, EV)
- Functional testing to assess lower body strength (single leg hop) if needed

Exercises

- Continue ankle strengthening, flexibility, and proprioception activities
- Continue cardiovascular activities
- Pass a sport specific functional progression to full sports participation

Clinical Follow-up

- Patient may return to the clinic to address any problems that the patient encounters with ADL's, exercise, and sport. The athlete will work on high-level strengthening until return to sport.