Connecticut Orthopaedics

Megan R. Wolf, MD
Sports Medicine/Foot & Ankle

Navicular Open Reduction Internal Fixation
Post-Operative Protocol

Phase I - Maximum Protection

Weeks 0-2

- Post-operative splint
- Non-weight bearing at all times with use of crutches
  - No scooter

  Goals
  - Reduce inflammation and pain
  - Protect surgical repair
  - Maintain strength of non-operative joints

  Exercise progression
  - Open chain hip strengthening
  - Gait training
  - Elevation to assist with swelling reduction

Weeks 2 to 6:

- Cast (transition at 2-week post-op appointment)
- Non-weight bearing at all times with use of crutches or scooter

  Goals
  - Reduce inflammation and pain
  - Protect surgical repair
  - Maintain strength of non-operative joints

  Exercise progression
  - Open chain hip strengthening
  - Gait training
  - Elevation to assist with swelling reduction

Weeks 6 to 12:

- CAM boot at all times (transition at 6-week post-op appointment)
- Non-weight bearing at all times with use of crutches or scooter for weeks 6-10 with potential transition to weight bearing in CAM boot for at 10 weeks (determined by MD).
  - CT scan will be performed at 10 weeks post-op to ensure bone healing. MD will progress patient to weight bearing in CAM boot if CT scan demonstrates good healing.
- Able to remove CAM boot for range of motion exercises
  - No range of motion restrictions

  Goals
  - Reduce inflammation and pain
  - Protect surgical repair
  - Maintain strength of non-operative joints
  - Progress ROM at ankle and foot as tolerated
  - Manual therapy for pain relief and range of motion at ankle and foot

  Exercise progression
  - Open chain hip strengthening
  - AROM of ankle and foot
  - Modalities for pain relief and swelling reduction
  - Gait training

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Phase II- Progressive Stretching and Early Strengthening

Weeks 12 to 16:

- Discontinue CAM boot and transition to shoe
- Weight bearing as tolerated
- Initiate closed chain strengthening
- Initiate balance/proprioceptive drills

  Goals
  - No swelling
  - Full range of motion
  - Normal gait pattern

  Exercise progression
  - Gait training- normalize gait pattern
  - Proprioception drills
  - Begin unilateral closed kinetic chain program
  - Step-up progression
  - Introduce bike and elliptical trainer

Phase III- Advanced Strengthening and Running Progression

Weeks 16 to 20 weeks:

- Administer Preliminary functional test at 16 weeks for physical therapist to review
- Initiate straight line jogging at 16 weeks if proper biomechanics are demonstrated and symmetry on functional test
- Advance strengthening program
- Initiate plyometric training progressing from double leg to single leg activities
- Administer Return To Sport functional test at 20 weeks for physician to review

  Goals
  - No swelling
  - Full range of motion
  - Symmetrical strength and power

  Exercise progression
  - Basic ladder series
  - Linear jogging progression
  - Basic plyometric box progression
  - Gym strengthening progression

Criteria to be released for return to sport
- Follow-up examination with the physician
- Pass Return To Sport functional test at >90% (involved vs. uninvolved limb)
- Display symmetry and confidence in high-speed cutting, multi-plane plyometric drills, sprinting and decelerating

Anticipated return to sport:
5-6 months for contact and non-contact athletes

Revised ***