Connecticut Orthopaedics

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

Distal Femoral Osteotomy (DFO)/
Proximal Tibial Osteotomy (HTO)
Post-Operative Protocol

Phase I - Maximum Protection
Weeks 0-6:

- Brace- wear at all times unlocked
- Toe touch weight bearing (TTWB) for 6 weeks

  Goals
  - Reduce inflammation and pain
  - Protect surgical repair
  - Range of motion: No restrictions

  Exercise progression
  - PROM, AAROM, and AROM
  - Quad and glute isometric activation
  - Patellofemoral mobilizations
  - Open chain hip strengthening
  - Able to perform bike with no resistance
  - Local core stabilization exercises within weight bearing restrictions

Phase II- Progressive Stretching and Early Strengthening
Weeks 6 to 8:

- Brace- wear at all times unlocked
- Progress to weight bearing as tolerated (WBAT)
- Progress range of motion

  Goals
  - Reduce inflammation and pain
  - Protect surgical repair
  - Full range of motion by 8 weeks
  - Gait training

  Exercise progression
  - PROM/AROM/AAROM to achieve full range of motion
  - Initiate closed kinetic chain exercises to progress weight bearing status and facilitate muscle activation
  - Core stabilization exercises

Phase II- Progressive Strengthening
Weeks 8 to 12:

- Discontinue brace
- Full weight bearing
- Progress closed chain strengthening from double limb to single limb
- Initiate balance/proprioceptive exercises

  Goals
  - Full range of motion
  - Normal gait pattern
  - No swelling
  - Progress limb strength

  Exercise progression
  - Initiate elliptical trainer
  - Progress closed kinetic chain strengthening from double limb to single limb
  - Proprioception drills

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Phase IV- Advanced Strengthening and Endurance Training

Weeks 12 to 16:

- Advance strengthening program
- Prepare for Preliminary functional test to perform at 16 weeks
- Progress balance and proprioception

  Goals
  - Full range of motion
  - Protect repair
  - Normal gait pattern
  - Increase single leg strength

  Exercise progression
  - Single limb closed chain exercises
  - Proprioception drills

Phase V- Running Progression and Plyometric Progression

Weeks 16 to 20:

- Administer Preliminary functional test at 16 weeks for physician to review
- Initiate straight line jogging at 18 weeks if proper biomechanics are demonstrated
- Initiate plyometric training at 18 weeks progressing from double limb to single limb
- Advance strengthening program

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

  Exercise progression
  - Basic ladder series
  - Linear jogging progression
  - Plyometric progression

Phase V- Return to Sport

Weeks 20 to 24:

- Progress plyometric training to multi-direction, change of direction, and deceleration
- Administer Return To Sport functional test prior to 6 month follow up appointment with MD

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

  Exercise progression
  - Advance ladder, hurdle, and plyometrics
  - Sport specific field/court drills
  - Non-contact drills

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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:

- 6-9 months for contact and non-contact athletes

Revised ***