Proximal Tibial Osteotomy/Distal Femoral Osteotomy Postoperative Protocol

I) Weeks 0-6:

- Restrictions:
  1) Knee immobilizer as needed
  2) TTWB with crutches

- Goals:
  1) Reduce pain
  2) Reduce swelling
  3) Reduce muscle atrophy
  4) Gradual full range of motion

- Outcome measures at initial evaluation:
  1) LEFS: Lower extremity functional scale.
  2) PSFS: Patient specific functional scale.

- Anti-edema
  1) Ice/Cryotherapy multiple times during the day
  2) Compression with TubiGrip/TEDS

- Therapy/Exercises examples:
  1) Quad sets, SLR
  2) Hamstring sets
  3) Gluteal sets
  4) Hip belt abduction isometrics
  5) Pillow adductor squeezes
  6) Crunches
  7) Ankle dorsiflexion/plantar flexion isometrics or Theraband strengthening
  8) Multi-directional patella mobilization
II) **Weeks 6 to 12:**

- **Restrictions:**
  1) Weight-bearing status: use bathroom scale to progress as follows:
     - week 7: PWB 1/3 body weight
     - week 8: PWB 2/3 body weight
     - week 9: FWB with crutches/crutch/cane
     - week 10+: Discontinue ambulatory aids (No limp)

- **Goals:**
  1) Reduce effusion
  2) Full weight bearing by ten weeks without crutches
  3) Continue full ROM
  4) Minimize hip, core and lower extremity atrophy

- **Therapy/Exercises examples:**
  1) Gait training
  2) Stationary bicycle with no resistance once knee flexion greater than 90 degrees
  3) Continue quad sets, SLR, leg curl and heel slides
  4) Strengthen quads, hamstrings, and hip abductors/extensors using ankle weights and/or elastic band resistance through full ROM as tolerated
  5) Gentle closed-chain terminal knee extension 0-40 degrees (TKE) permitted starting at 9-10 weeks as tolerated per weight bearing restriction.
  6) Body weight partial squats and leg press 60- to 0- degree arc.
  7) AlterG Treadmill walking
  8) Multi-directional patella mobilization

III) **Weeks 13+:**

- **Restrictions:**
  1) Return to impact loading activities and clearance for return to sports as determined by surgeon
  2) No pivoting sports should be started without surgeon clearance

- **Outcome measures:**
1) LEFS: Lower extremity functional scale.
2) PSFS: Patient specific functional scale.

- Goals:
  1) Full active range of motion of the involved knee
  2) No effusion
  3) Improved quad strength and endurance

- Weight bearing:
  1) Normal walking

- Therapy/Exercises:
  1) Resisted open-chain exercise with $\leq 20$lbs to be progressed as tolerated after 6mos
  2) Closed-chain exercise to promote knee stability and proprioception through full ROM as tolerated. Progress mini-squats to squats. Leg press 90- to 0-degree arc.
  3) Cycling on level surfaces permitted with gradual increase in tension per level of comfort
  4) Treadmill walking/reverse treadmill walking encouraged