REHABILITATION GUIDELINES FOR TIBIAL PLATEAU FRACTURE OPEN REDUCTION INTERNAL FIXATION

Stage 1(Day 1-4 weeks):
- ROM: hinged splint locked in full extension, pillow under calf with leg elevated, patellar mobilizations, gradually increase ROM 0-90 degrees, brace during sleep for 6 weeks.
- Strength: quad sets and SLR (without weights), ROM for flexion 0-45 degrees in sitting position with eccentric and concentric quadriceps, avoid contraction of hamstrings and calf. Resistance ankle plantar flexion exercises with the knee in extension with rubber tubing. Mini squats (0-45 degrees). No hamstring PREs; Calf ROM
- Weightbearing: 0%
- Modalities: EMG biofeedback quadriceps prn; EMS prn; cryotherapy
- Sports: none.
- CPM: cumulative of 6 hours per day for the first 6 weeks post-operative(1-2 hours at a time) with a ROM of 0-30 degrees.

Stage 2(4 weeks-6 weeks):
- ROM: progress flexion as tolerated-10 degrees/week
- Strength: PRE and SLR as above
- Weightbearing: 0%
- Modalities: as above.
- Sports: none.
- CPM: cumulative of 6 hours per day for the first 6 weeks post-operative(1-2 hours at a time) with a ROM of 0-30 degrees.

Stage 3(6 weeks-4 months):
- ROM: Increase flexion to within normal limits; may remove brace for sleep at 8 weeks
- Strength: PRE-quads 0-30 degrees only, hamstrings 0-10 degrees, squats, hip abduction and adduction, stationary bicycling, step-ups(Stair Master), rowing machine, swimming, sliding board; progress with closed kinetic chain strengthening with weightbearing progress.
- Weight bearing: start at 25%, progress up to 100% by post-op week 10.
- Modalities: as above.
- Sports: steps-ups, rowing machine, swimming, and slide board
Stage 4 (4 months-6 months):
  ROM: as above
  Strength: PRE-quad PRE into full extension with gradual transition
  Weight bearing: Initiate straight ahead jogging to \( \frac{1}{2} \) speed running as tolerated (IF APPLICABLE TO LIFESTYLE) (once 65% strength attained in hamstrings and quadriceps)
  Modalities: prn
  Sports: IF APPLICABLE TO LIFESTYLE, initiate straight jogging to \( \frac{1}{2} \) speed running (if applicable)

Stage 5 (6 months and beyond):
  ROM: as above
  Strengthening: as above
  Modalities: as above
  Sports (if applicable): progress through graduated running program such as “functional rehabilitation program”
  Resume main sports if patient has obtained near full ROM and has obtained at least 80% of quad and hamstring strength as compared to the other extremity.