

# Tibial Plateau Fracture ORIF Rehabilitation Protocol

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**Procedure:** ORIF Tibial Plateau

**PT Frequency:** 2-4 times per week

**ROM Restrictions:** 0-90 (Passive, Active assist) x 6 weeks

**Brace:** Locked in full extension x 6 weeks

**Weightbearing:** NWB x 6 weeks, then PWB (25% with progression to full WBAT at 8 weeks)

## PHASE I (Weeks 0 – 6):

- **Weightbearing:** Non-Weightbearing (NWB) x 6 weeks with crutches and brace
- **Brace:** Worn at all times locked in full extension. Ok to remove for hygiene and exercises.
- **Range of Motion:** 0-90° with emphasis on full extension
- **Home Exercises:** Quad sets with brace locked at 0°, calf/ankle pumps
  - 2 weeks: Begin floor-based core, hip and glutes work and patellar mobilization and SLR, Progress non-weight bearing flexibility, modalities

## Phase II (Weeks 6 – 8)

- **Weightbearing:** Begin progression to partial weightbearing (25% then 50%) with goal of weightbearing as tolerated (WBAT) with crutches and brace by 8 weeks
  - Discontinue crutches when gait normalized and non-antalgic
  - Discontinue brace once fully WBAT without crutches
- **Brace:** Unlocked, off at night, for hygiene and exercises
  - Discontinue after 6-8 weeks when WB comfortably
- **Range of Motion:** Full unlimited active/passive ROM
- **Exercises:**
  - PROM/AAROM to tolerance, patella and tibiofibular joint mobs
  - Begin stationary bike as tolerated after 6 weeks
  - Advance closed chain quads, progress balance
  - Core/pelvic and stability work
  - Begin stationary bike at 6 weeks
  - Advance SLR, floor-based exercise; hip/core

## Phase III (Weeks 8 – 16)

- **Weightbearing:** Full WBAT
- **Hinged Knee Brace:** None
- **Range of Motion:** Full
- **Exercises:**
  - Progress closed chain activities
  - Progress flexibility/strengthening
  - Progression of functional balance, core, glutes program
  - Advance bike, add elliptical at 12 weeks as tolerated. Swimming okay at 12 weeks

## Phase IV (Weeks 16+)

- **Exercises:** Advance Phase IV activity. Progress to functional training, including impact activity after 20 weeks when cleared by MD.

Exercise	Week																							
	1	2	3	4	5	6	7	8	9	10	12	16	20	24										
<b>Initial Exercises:</b>																								
ROM Goals	0-90°					0-125°					Progress to full													
Flexion/extension, heel slides/seated																								
Patella/Tendon mobilization																								
Quad Series	0° ISOs, SLR					60° ISO					70-30° arc-resisted					Full arc resisted								
Hamstring series/strength progression	ISOS, hip based					Knee-based resisted arc																		
Sit and reach for hamstrings																								
Ankle Pumps																								
Crutch wearing	NWB										Begin WBAT progress to full by 8 weeks													
Heel prop knee extension stretch																								
SLR (w/ brace until quad control restored)																								
Toe and heel raises																								
Balance series																								
<b>Weight-bearing Strength Exercises:</b>	1	2	3	4	5	6	7	8	9	10	12	16	20	24										
Double knee bends	NWB																							
Leg Bridges (2 → 1 leg)																								
Begin cord exercises																								
Leg press (ISO → reps, 2 → 1 leg)																								
Reverse lunge- static hold																								
Dead Lift (2 → 1 leg)																								
Sports Test exercises																								
<b>Cardiovascular Exercises:</b>						1	2	3	4	5	6	7	8	9	10	12	16	20	24					
Bike with both legs-no resistance	NWB																							
Bike with both legs- resistance																								
Aqua jogging																								
Treadmill-walking (no limp)																								
Swimming with fins-light flutter kick																								
Elliptical Trainer																								
Stair stepper																								
*Cardio Exercises						Must tolerate daily walking with no limp & no significant increase in pain/swelling prior to initiating WB cardio (walk, elliptical, stepper)																		
<b>Agility Exercises:</b>	1	2	3	4	5	6	7	8	9	10	12	16	20	24										
Running Progression	NWB																							
Initial-Single Plane																								
Advance-Multi Directional																								
Functional Sports Test																								
<b>High Level Activities:</b>	1	2	3	4	5	6	7	8	9	10	12	16	20	24										
Golf Progression	NWB																							
Outdoor biking, hiking, running																								
Return to Full Sport at 6-8 months post-op																								

Adapted from post-operative protocol by Dr. Jorge Chahla created by Howard Head Physical Therapy, Jill Monson, PT, OCS and Jon Schoenecker, PT, OCS, CSCS