



Tibial Avulsion Repair

Post-Operative Rehabilitation Protocol

0-2 week

- WBS: TTWB for 0-2 weeks post-op
- Brace: Weeks 0-2: Brace locked in full extension for ambulation & sleeping.
- ROM: 0-90° with emphasis on full extension
- Patella mobilization
- SLR supine with brace locked at 0°
- Quad Sets with brace locked at 0°
- Ankle Pumps
- Short crank (90mm) ergometry

2-6 weeks

- WBS:
 - Weeks 3-4: PWB
 - Weeks 5-6: Wean from crutches as patient demonstrates normal gait mechanics and improved quad control.
- Brace:
 - Weeks 2-4: Brace locked in full extension for ambulation & sleeping.
 - Weeks 5-6: WBAT in extension. OK to d/c brace when sleeping.
- ROM: AAROM → AROM as tolerated
 - Maintain full extension and work on progressive knee flexion.
 - Goal: 0-90° by Week 3
 - Goal: 0-125° by Week 6
- Flexion extension wall slides
- Patellar mobilization/scar mobilization
- Quad sets, Hamstring curls, Heel slides
- Non-weight bearing stretching of Gastro-Soleus
- Straight-leg raise with brace in full extension until quad strength returns (no extension lag)

Weight Bearing Status

TTWB: 0-2 wks
PWB: 2-4 wks
WBAT: 4+ wks

Brace Settings

Weeks 0-4:
Locked straight x
8 weeks when
ambulating &
sleeping.
Weeks 5-6:
D/C sleeping
Weeks 7-8:
Unlock in 30°
increments
Week 8+:
D/c Brace

ROM Restrictions

Full PROM
beginning
POD 1



6-12 weeks

- WBS: WBAT
- Brace:
 - Weeks 7-8: Begin unlocking in 30° increments every 3-4 days.
 - Unlock by the start of Week 8.
 - Discontinue after Week 8.
- Begin stationary bike.
- Continue with ROM/flexibility exercises as appropriate.
- Closed chain extension exercises
- Weight bearing Gastroc-Soleus stretching.
- Toe raises, start proprioception program

12-18 weeks

- Begin straight-ahead, treadmill running Week 13.
- Continue flexibility and ROM exercises as appropriate for patient
- Progressive hip, quad, hamstring and calf strengthening
- Mini-Wall Squats (0-60°)
- Lateral Lunges & Step-Ups
- Hip Abduction/Adduction
- Short-Arc Leg Press
- Cardiovascular/endurance training via stair master, elliptical and bike
- Advance proprioceptive activities and agility drills

18-24 weeks

- Progress flexibility/strength program based on individual needs/deficits
- Initiate plyometric program as appropriate for patient's athletic goals
- Agility progression including:
 - Side steps + Crossovers, Figure 8 and Shuttle Running
 - One & Two Leg Jumping
 - Cutting/Accelerative/Deceleration/Springs, Agility Ladder Drills
- Continue progression of running distance based on patient needs
- Sport-specific drills as appropriate for patient
- Gradual return to activity as tolerated



Exercise	Week															
	1	2	3	4	5	6	7	8	9	10	12	16	20	24		
Initial Exercises:																
Flexion/extension, wall slides																
Flexion/extension, seated/calf assisted or prone																
Patella/Tendon mobilization																
Quad Series																
Hamstring Sets																
Sit and Reach for Hamstrings (<i>no hyperextension</i>)																
Ankle Pumps																
Crutch weaning																
Toe and Heel Raises																
Balance Series																
Weight-bearing Strength Exercises:																
	1	2	3	4	5	6	7	8	9	10	12	16	20	24		
Double Knee Bends																
Double Leg Bridges																
Reverse Lunge, static holds																
Beginning cord exercises																
Balance Squats																
Single Leg Dead Lift																
Leg Press to Max 70-degree knee flexion																
Sports Test Exercises																
Cardiovascular Exercises:																
	1	2	3	4	5	6	7	8	9	10	12	16	20	24		
Bike with both legs-no resistance																
Bike with both legs-resistance																
Aquajogging																
Treadmill-walking 7% incline																
Swimming with fins-light flutter kick																
Elliptical Trainer																
Rowing																
Stair stepper																
Agility Exercises:																
	1	2	3	4	5	6	7	8	9	10	12	16	20	24		
Running Progression																
Initial-Single Plane																
Advance-Multi Directional																
Functional Sports Test																
High Level Activities:																
	1	2	3	4	5	6	7	8	9	10	12	16	20	24		
Golf Progression																
Outdoor biking, hiking, running																
Return to Full Sport at 9 months post-op																