

Rehabilitation Protocol: Proximal Hamstring Repair

Phase I: 0-6 weeks

- Brace: Locked per ROM below
- ROM:
 - > Week 0-2: locked at 60 deg
 - > Week 2-4: locked at 40 deg
 - > Week 4-6: locked at 20 deg
- Weightbearing: Non-weightbearing with crutches & brace x6-8 weeks
- Precautions: Avoid hip flexion coupled with knee extension (hamstring stretch); Avoid unsafe surfaces and environments
- Exercises:
 - Quad sets
 - Ankle pumps
 - Abdominal isometrics
 - Passive knee ROM with no hip flexion during knee extension
 - Scar mobilizations
 - Upper body circuit training or upper body ergometer

Phase II: 1-12 weeks

- Brace: continue weeks 6-8, permitting full extension; then wean as tolerated
- ROM: Brace locked while weightbearing for weeks 6 & 7 of this phase; then unlock brace 0-90 while weightbearing prior to weaning out. While not weightbearing, 0-125 deg permitted beginning week 8 - maintain full extension
- Weightbearing: advance to PWB 25%, then 50%, then continue progress until full WBAT. Wean off crutches once gait is normalized and non-antalgic
- Precautions: avoid dynamic stretching; avoid loading hip at deep flexion angles; no loading beyond 60 deg knee flexion; no impact or running
- Exercises: Do NOT exceed 60 deg knee flexion in loading
 - Double leg partial squats
 - Single leg balance
 - Stationary bike
 - Gait training
 - Start hamstring light strengthening (avoid lengthened hamstring position ie hip flexion + knee extension) by working hip extension and knee flexion moments separately
 - Isometric and concentric strengthening of hamstrings (heel slides, double leg bridge, standing leg extensions, physioball curls)
 - Hip and core strengthening

Phase III: 12-16 weeks

- Brace: None
- ROM: full
- Weightbearing: WBAT
- Exercises:
 - Gradual progression in strengthening to lengthened hamstring position
 - Light partial range eccentric strengthening

- Swimming
- Initiate jogging but no sprinting
- Low velocity exercises

Phase IV:
8-12 weeks

- Brace: wean out of boot; lace up ankle brace in athletic shoes if having adequate strength and gait pattern
- ROM: full
- Weightbearing: WBAT
- Strengthening/Exercises:
 - > Maintain flexibility/ROM
 - > Same as Phase III

Phase V:
>16 weeks

- Brace: None
- ROM: full
- Weightbearing: WBAT
- Exercises:
 - Single leg deadlifts with dumbbells
 - Single leg bridge curls on physioball
 - Nordic curls assisted
 - Progressing running
 - Hip and core strengthening
 - Sports specific drills
 - Prior to RTS require less than 10% side to side deficit on hamstring strength and functional testing