

HAMSTRING TENDON REPAIR

REHABILITATION PROTOCOL

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|  | **Weight Bearing** | **Brace/ROM** | **Goals** | **Exercises** |
| **Phase 1** (0-6 weeks)“Protect the repair” | No weight bearing (wk 0-2)Toe touch (wk 2-6)Crutches at all timesAvoid unsafe surfaces and environments | Brace locked at 45 degrees (prevent hamstring tension) (0-4 wks)After 4 weeks - unlock hinged knee brace to 30 degrees flexion for several days, then 0 degreesflexion/extensionAvoid hip flexion coupled with knee extension (hamstring stretch) | Protect the repairPrevent blood clotsPain control | Quad setsAnkle pumpsAbdominal isometricsPassive knee range of motion (ROM) with no hip flexion during knee extension |
| **Phase 2**(6-12 weeks)“Restore Motion and Gait” | Progress weight bearing as tolerated with weaning from crutchesNo impact or running | Wean brace completelyAvoid dynamic stretchingAvoid loading the hip at deep flexion angles | Restore full knee motionBegin early gentle strengtheningNormalize gait | Non-impact balance and proprioceptive drills – beginning with double leg and gradually progressing tosingle legStationary bikeGait trainingBegin hamstring strengthening – start by avoidance of lengthened hamstring position (hip flexioncombined with knee extension) by working hip extension and knee flexion moments separately; begin with isometric and concentric strengthening with hamstring sets, heel slides, double leg bridge, standing leg extensions, and physioball curlsHip and core strengthening |
| **Phase 3**(12-18 weeks)“Restore Strength”  | Full | No restrictions | No pain during strength trainingPost-activity soreness should resolve within 24 hours | Continue hamstring strengthening – progress toward strengthening in lengthened hamstring positions;begin to incorporate eccentric strengthening with single leg forward leans, single leg bridge lowering, prone foot catches, and assisted Nordic curlsHip and core strengtheningImpact control exercises beginning 2 feet to 2 feet, progressing from 1 foot to the other and then 1 foot tosame footCardiovascular Exercise: Biking, elliptical machine, Stairmaster, swimming, and deep water running |
| **Phase 3**(12-18 weeks)“Return to Activity”  | Full | No restrictions | Dynamic neuromuscular control with multi-plane activities at low to medium velocity without pain orswelling | Movement control exercise beginning with low velocity, single plane activities and progressing to highervelocity, multi-plane activitiesSport/work specific balance and proprioceptive drills |

\*\* Typically, we will not have patients start formal PT until 4-6 weeks postop

\*\* Patient will perform Home Exercise including DVT prevention and isometric exercises to allow time for optimal healing