



Cartilage Repair Center

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HTO with Autologous Bone Graft

Stage 2- Transitional Phase (7-12 weeks)

PRIMARY GOALS

DO NOT OVERLOAD GRAFT

INCREASE TIBIAL-FEMORAL AND PATELLA-FEMORAL MOBILITY

RESTORE QUADRICEPS CONTROL AND KNEE ROM

BRACE

- ◆ Knee immobilizer with ambulation until good quad control/independent SLR

GAIT

- ◆ Use bathroom scale to progress as follows:
 - Weeks 7 & 8 PWB 1/3 Body Weight
 - Weeks 9 & 10 PWB 2/3 Body Weight
 - Weeks 11 & 12 FWBAT with crutches
 - Week 13+ Crutch, Cane, or No Device as tolerated
- * Progress per guidelines above as pain allows.

ROM

- ◆ Continue full AROM and gentle PROM exercises
- ◆ CPM may be discontinued

THEREX

- ◆ Low weight (max 10-20lbs.) open-chain leg extension and curl
- ◆ Stationary bicycle with gradual increased tension per level of comfort
- ◆ Continue quad sets, SLR in brace, leg curl and heel slides
- ◆ Strengthen quadriceps, hamstrings, and hip abductors/extensors using ankle weights and/or elastic band resistance through full ROM as tolerated
- ◆ Gentle closed-chain terminal knee extension 0-40 degrees (TKE) permitted starting at 9-10 weeks as tolerated per weightbearing restriction

THERAPY

- ◆ Continue gentle multi-directional patella mobilization as needed
- ◆ Whirlpool or pool therapy as available to enhance ROM and quadriceps/hamstring muscle control.
- ◆ E-stim for VMO/quadriceps muscle re-education/biofeedback as needed
- ◆ Gentle massage/deep friction to hamstring insertions, suprapatellar quadriceps, medial/lateral gutters, and infrapatellar regions

COMMENTS

- ◆ Activity level should be modified if increased pain, catching, or swelling occurs
- ◆ No progression of this protocol until cleared by MD at 12 weeks post-op



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