



Cartilage Repair Center

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HTO/TTO+PF

Autologous Chondrocyte Transplantation
Stage 3- Remodeling Phase (13+ weeks)

PRIMARY GOALS

DO NOT OVERLOAD GRAFT
INCREASE TIBIAL FEMORAL AND PATELLA FEMORAL MOBILITY
RESTORE QUADRICEPS CONTROL

- | | |
|-----------------|---|
| BRACE | ♦ Hinged-knee brace discontinued once independent SLR achieved |
| GAIT | ♦ Weight-bearing as tolerated with crutch or cane as needed/pain allows |
| ROM | ♦ Progress towards full ROM equal to contralateral side |
| THEREX | ♦ Stationary bicycling with low resistance as tolerated
♦ Treadmill forward/retro-walking encouraged
♦ Nordic track and elliptical machine permitted after 6 months
♦ Inline skating permitted after 9 months
♦ Pool exercise- flutter/straight leg scissor kick and running in water permitted
♦ Continue gentle closed-chain LE strengthening through functional range - terminal knee extension 0-40 degrees and 120-70 degrees extension from flexed position
♦ Full active flexion with resistance permitted
♦ Open-chain terminal extension with resistance <u>not</u> permitted |
| THERAPY | ♦ Multi-directional patella mobilization as needed
♦ Continue cryotherapy and compression stockings for edema control
♦ E-stim for VMO/quadriceps muscle re-education/biofeedback as needed
♦ STM to scar, hamstring insertions, suprapatellar quadriceps, medial/lateral gutters, and infrapatellar regions |
| COMMENTS | ♦ Physical assessment by MD required before full activities resume at approximately 1 year after surgery.
♦ Activity level should be modified if increased pain, catching, or swelling occurs |

For Outpatient Physical Therapist:
2-3x week / 6 weeks



ORTHOPEDIC & SPINE INSTITUTE
at St. Mary's Medical Center