



Cartilage Repair Center

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Autologous Chondrocyte Transplantation

HTO/TTO & PF

Stage 1 – Proliferative Phase (0-6 weeks)

PRIMARY GOALS

DO NOT OVERLOAD GRAFT

INCREASE TIBIAL-FEMORAL AND PATELLA-FEMORAL MOBILITY

RESTORE QUADRICEPS CONTROL

- BRACE**
- ♦ Knee immobilizer with ambulation, until good quads control/SLR (~3-6 weeks)
 - ♦ Bledsoe Hinge knee brace day 2 post-op to avoid compartment compression
 - ♦ May be out of brace for chair and CPM, Brace/immobilizer for ambulation
 - ♦ Hinged knee brace discontinued once independent SLR achieved
- PRECAUTIONS**
- ♦ Heel to toe TDWB with crutches
- ROM**
- ♦ Gentle AROM flexion as tolerated. Only PROM extension allowed
 - ♦ CPM >= 6-8 hours daily 0-40 degrees only for first three weeks then full ROM as tolerated by pain
 - ♦ 90 degree leg dangle once an hour each day to regain flexion ROM
 - ♦ Minimum 90 degree flexion by 2 weeks, 110 degree by 4 weeks, and full ROM by 6 weeks post-op
- THEREX**
- ♦ Quad sets, SLR with brace locked as needed, leg curl/heel slides, hip abduction/extension with ankle weights and/or band resistance as tolerated
 - ♦ Stationary bicycle with no resistance once 90 degree knee flexion obtained (~4 weeks)
- THERAPY**
- ♦ Multi-directional patella mobilization as needed
 - ♦ Continue cryotherapy and Ace wrap for swelling and pain control
 - ♦ E-stim for VMO/quadriceps muscle re-education/biofeedback as needed
 - ♦ STM to scar, hamstring insertions, suprapatellar quadriceps, medial/lateral gutters and infrapatellar fat regions
 - ♦ Whirlpool therapy recommended 3 weeks post-op to enhance motion
- COMMENTS**
- ♦ No resistance permitted with stationary bicycle until 6 months after surgery
 - ♦ No progression of this protocol until cleared by MD at 6 weeks post-op

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



ORTHOPEDIC & SPINE INSTITUTE

at St. Mary's Medical Center