



# Cartilage Repair Center

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## Weight-bearing Femoral Condyle & Tibial Tubercle Osteotomy

Autologous Chondrocyte Transplantation PT Protocol (#1)

Stage 1 – Proliferative Phase (0-6 weeks)

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### PRIMARY GOALS

DO NOT OVERLOAD GRAFT

INCREASE TIBIAL-FEMORAL AND PATELLA-FEMORAL MOBILITY

RESTORE QUADRICEPS CONTROL

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|--------------------|---|
| <b>BRACE</b>       | ♦ Knee immobilizer with ambulation, until good quads control/SLR (~3-6 weeks)   |
| <b>PRECAUTIONS</b> | ♦ Heel to toe TDWB with crutches - <b><u>NO</u></b> active extensions   |
| <b>ROM</b>         | ♦ Full AROM and gentle AAROM<br>♦ CPM >= 6-8 hours daily for 6 weeks, progress range as tolerated<br>♦ Goal: Minimum 90 degrees flexion by 2 weeks, 120 degrees by 6 weeks, and full ROM by 12 weeks post-op  |
| <b>THEREX</b>      | ♦ Quad sets, SLR in knee immobilizer as needed, leg curl/heel slides, hip abduction<br>♦ Stationary Bicycle with no resistance once 90 degrees knee flexion obtained (~4 weeks)   |
| <b>THERAPY</b>     | ♦ Gentle multi-directional patella mobilization immediately after surgery<br>♦ Cryotherapy and Ace wrap for swelling and pain control<br>♦ E-stim for VMO/quadriceps muscle re-education/biofeedback encouraged early after surgery if needed<br>♦ Gentle massage/deep friction to hamstring insertions, suprapatellar quadriceps, medial/lateral gutters, and infrapatellar fat pad region 2-3 weeks after surgery<br>♦ Whirlpool therapy recommended at 2-3 weeks post-op to enhance motion |
| <b>COMMENTS</b>    | ♦ When TTO performed, SLR/active knee extension <b>NOT PERMITTED</b><br>♦ Contact MD if ROM not achieved to within 20 degrees of goal<br>♦ No progression of this protocol until cleared by MD at 6 weeks post-op   |

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



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