



Cartilage Repair Center

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Autologous Chondrocyte Transplantation PT Protocol Stage 1- Proliferative Phase (1-6 weeks)

Femoral Condyle + Patellofemoral

PRIMARY GOALS

DO NOT OVERLOAD GRAFT
INCREASE TIBIOFEMORAL AND PATELLOFEMORAL MOBILITY
RESTORE QUADRICEPS CONTROL

- BRACE**
- ◆ Bledsoe Hinge knee brace for ambulation (locked) and at night
 - ◆ Out of brace for CPM.
 - ◆ No brace, but towel/pillow behind heel when lying down
- PRECAUTIONS**
- ◆ Heel-toe TDWB-PWB < 40 lbs pressure with crutches
- ROM**
- ◆ Gentle AROM flexion as tolerated 3x/day. Only PROM extension allowed.
 - ◆ CPM \geq 6-8 hours daily. 0-40 degrees only, do not advance.
 - ◆ Minimum 90 degrees flexion by 3 weeks, 110 degrees by 6 weeks, and full ROM by 12 weeks post-op.
- THEREX**
- ◆ Quad sets, SLR with brace locked, leg curl/heel slides, hip abduction
 - ◆ Stationary bicycle with no resistance once 90 degrees knee flexion obtained (>4wks).
- THERAPY**
- ◆ Gentle multi-directional patella mobilization immediately after surgery.
 - ◆ Cryotherapy and compression stockings/TEDS for swelling and pain control.
 - ◆ E-stim for VMO/quadriceps muscle re-education/biofeedback encouraged early after surgery if needed.
 - ◆ Gentle massage/deep friction to hamstring insertions, suprapatellar quadriceps, medial/lateral gutters, and infrapatellar fat pad region at 2-3 weeks post-op.
 - ◆ Pool therapy recommended 2-3 weeks post-op to enhance motion.
- COMMENTS**
- ◆ Avoid active open-chain extension and repetitive knee flexion 40-70 degrees due to increased patellofemoral contact forces.
 - ◆ Contact MD if ROM not achieved within 20 degrees of goal.
 - ◆ No progression of this protocol until cleared by M.D at 6 weeks post-op.
 - ◆ No leg presses/squats



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