



# Cartilage Repair Center

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[www.cartilagerepaircenter.org](http://www.cartilagerepaircenter.org)

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## Weightbearing Femoral Condyle + Patellofemoral (No Osteotomy)

Autologous Chondrocyte Transplantation

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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#### **BRACE**

- ♦ Hinged knee brace with ambulation locked in full extension until good quad control/independent SLR achieved. May be out of brace for chair and CPM
- ♦ Hinged knee brace discontinued once independent SLR achieved

#### **PRECAUTIONS**

- ♦ Heel to toe TDWB with crutches

#### **ROM**

- ♦ Gentle AAROM/AROM flexion as tolerated. Only PROM extension allowed
- ♦ CPM minimum 3 hours per day beginning at 40 degrees of flexion and progressing as tolerated
- ♦ Leg dangle every hour, each day to regain flexion ROM. Begin at 90 degree leg dangle, and use nonoperative leg to assist with increased flexion
- ♦ **Goal: 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 in extension, leg curls/heel slides, hip abduction/extension with ankle weights and/or band resistance as tolerated
- ♦ Stationary bicycle with no resistance once 90 degrees knee flexion obtained (~3 weeks)

#### **THERAPY**

- ♦ Multi-directional patella mobilization immediately after surgery
- ♦ Cryotherapy and ACE wrap for swelling and pain control
- ♦ E-stim for VMO/quadiceps muscle re-education/biofeedback encouraged early after surgery
- ♦ Standing resisted isometrics and closed-chain terminal knee extension (0-30 degree) with elastic band permitted at 3 weeks post-op
- ♦ Massage/deep friction to hamstring insertions, suprapatellar quadriceps, medial/lateral gutters, and infrapatellar fat pad region 2 weeks after surgery
- ♦ Pool therapy recommended at 2-3 weeks post-op to enhance motion

#### **COMMENTS**

- ♦ Contact MD if ROM not achieved to within 20 degrees of goal
- ♦ No resistance permitted with stationary biking until cleared by MD
- ♦ **NO** leg presses/squats
- ♦ **NO** active open-chain due to increased patellofemoral contact forces
- ♦ **Activity level should be modified if increased pain, catching, or swelling occurs**

For Outpatient Physical Therapist:

2-3x week / 6 weeks