



# Cartilage Repair Center

Tom Minas, MD, MS

901 45th Street, Kimmel Building  
West Palm Beach, FL 33407

P: 561-844-5255

F: 561-844-5945

Ash Itinger, Admin Ext 246  
[www.cartilagerepaircenter.org](http://www.cartilagerepaircenter.org)  
[www.paleyinstitute.org](http://www.paleyinstitute.org)

## Weight-bearing Femoral Condyle & Tibial Tubercle Osteotomy

Autologous Chondrocyte Transplantation PT Protocol (#1)

Stage 2- Transitional Phase (7-12 weeks)

### PRIMARY GOALS

DO NOT OVERLOAD GRAFT

INCREASE TIBIAL-FEMORAL AND PATELLA-FEMORAL MOBILITY

RESTORE QUADRICEPS CONTROL

#### **BRACE**

- ♦ Knee immobilizer with ambulation until good quad control/independent SLR

#### **GAIT**

- ♦ Use bathroom scale to progress as follows:

Weeks 7 & 8

PWB 1/3 Body Weight

Weeks 9 & 10

PWB 2/3 Body Weight

Weeks 11 & 12

FWB with crutches

Week 13+

Crutch, Cane, or No Device as tolerated

\*Progress per guidelines above as pain allows.

#### **ROM**

- ♦ Full AROM and gentle PROM.
- ♦ CPM may be discontinued.

#### **THEREX**

- ♦ Low weight (max 10-20 lbs.) open-chain leg extension and curl.
- ♦ Stationary bicycle with gradual increased tension per level of comfort
- ♦ Continue quad sets, SLR in brace, leg curl and heel
- ♦ Strengthen quadriceps, hamstrings, and hip abductors/extensors using ankle weights and/or elastic band resistance through full ROM as tolerated
- ♦ Gentle closed chain terminal knee extension 0-40 degrees (TKE) permitted starting at 9-10 weeks as tolerated per weight bearing restriction

#### **THERAPY**

- ♦ Continue multi-directional patella mobilization as needed.
- ♦ Whirlpool or pool therapy as available to enhance ROM and quadriceps/hamstring muscle control.
- ♦ E-stim for VMO/quadriceps muscle re-education/biofeedback as needed
- ♦ Massage/deep friction to hamstring insertions, suprapatellar quadriceps, medial/lateral gutters, and infrapatellar regions

#### **COMMENTS**

- ♦ Activity level should be modified if increased pain, catching, or swelling occurs.
- ♦ No progression of this protocol until cleared by MD at 12 weeks post-op.
- ♦ No open-chain strengthening permitted until 6 months after surgery.
- ♦ No closed-chain leg press or squatting

For Outpatient Physical Therapist:

2-3x week / 6 weeks



**ORTHOPEDIC & SPINE INSTITUTE**

at St. Mary's Medical Center