



Mercy Sports Medicine Institute &  
Joint Preservation Center

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**MICROFRACTURE TREATMENT  
OF ARTICULAR CARTILAGE DEFECTS  
(Tibiofemoral)**

*Revised August 2008*

**Post-op Days 1 – 14**

Dressing – POD 1: Debulk dressing, TED Hose in place

– POD 2: Change dressing, keep wound covered, continue TED Hose

– POD 7-10: Sutures out, D/C TED Hose when effusion resolved

Crutches: Toe touch weight bearing (TTWB) x 6wks, No Brace

CPM – Speed and ROM to patient tolerance, begin with 0-45 (8hrs daily)

AAROM, AROM as tolerated

Passive extension with heel on bolster or prone hangs

Patellar mobilization (teach patient)

Calf pumping

Short arc quads, 0-20 only, without resistance

Standing HS curls in parallel bars

Straight leg raise (SLR) x 4 with knee in brace

Electrical stimulation in full extension with quad sets and SLR

Stationary bicycle for ROM, seat adjusted high, no resistance

**No Resisted Closed Chain ex x 6 weeks**

**No Resisted Open Chain ex x 6 weeks**

**Goals**

CPM or bicycle: 500 cycles or more per day the first week

1000 cycles or more per day thereafter

Full extension

**Weeks 2 – 4**

Crutches with TTWB x 6 weeks

Continue appropriate previous exercises

Scar massage when incision healed

D/C CPM once patient is independent with stationary bicycle

AROM, AAROM as tolerated

Co-contractions quads / HS at 0, 30, 60, 90 degrees

SLR x 4 on mat (no brace) – Add light weight below the knee if good quad control

Pool therapy – Deep water (chest/shoulder) walking and ROM exercises

– Water jogging floating upright in deep water

Stretches – Hamstring, hip flexors, ITB

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**Goals**

No extensor lag

No effusion

**Weeks 4 – 6**

Crutches TTWB

Continue appropriate previous exercises

PROM, AROM, AAROM to regain full motion

Standing SLR x 4 with Theraband (standing on uninvolved LE)

**Goal** – Full AROM

**Weeks 6 – 8**

Weight bearing as tolerated (WBAT), D/C crutches when gait is normal

Continue appropriate previous exercises

Leg press with light weight

Mini squats, Wall squats

Hamstring curls – Carpet drags or rolling stool (closed chain)

Treadmill – Forwards and backwards walking

**Goal** – Normal gait

**Weeks 8 – 12**

Continue appropriate previous exercises

HS curl weight machine

Knee extension weight machine

Proprioceptive training – BAPS, ball toss, body blade

Fitter

Slide board

Forward, lateral and retro step downs

Stationary bike – Minimal resistance

Treadmill – Walking progression program

Elliptical trainer

Pool therapy – Waist deep water walking or slow jogging

Quad stretches

**Goal**

No thigh atrophy

Walk 2 miles at 15 min/mile pace

**Months 3 – 4**

Continue appropriate previous exercises with progressive resistance

Treadmill – Running progression program

Stairmaster

**Goal** – Run 2 miles at easy pace

**Months 4 – 6**

Continue appropriate previous exercises

Agility drills / Plyometrics

Sit-up progression

Progressive weight training program

Transition to home / gym program

**Goals**

Return to all activities at 6 months post-op

***No contact sports until 6 months post-op***

