

Microfracture Treatment of Articular Cartilage Defects (Patellofemoral) Post-surgical Rehab Protocol

The following is a protocol for post-operative patients following microfracture treatment of articular cartilage defect. The primary goal of this protocol is to protect the repair while steadily progressing towards and ultimately achieving pre-injury level of activity. Please note this protocol is a guideline. Patients with additional surgery will progress at different rates. Achieving the criteria of each phase should be emphasized more than the approximate duration. If a patient should develop an increase in pain or swelling or decrease in motion at any time, activity should be decreased until problems are resolved.

POST-OP DAYS 1 – 14

- Dressing:
 - POD 1: Debulk dressing, TED hose in place
 - POD 2: Change dressing, keep wound covered, continue TED hose
 - POD7-10: Sutures out, D/C TED hose when effusion resolved
- Crutches: weight bearing as tolerated (WBAT), D/C when gait is normal
 - Brace 0-20 degrees x 6 weeks
- CPM – Speed and ROM to patient tolerance, begin with 0-45 (8 hrs daily)
- AAROM, PROM 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 Hamstring curls in parallel bars
- Straight leg raise (SLR) x4 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 x6 weeks**
- **No Resisted Open Chain ex x6 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

- Brace 0-20 degrees x6 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 / Hamstring at 0, 30, 60, 90 degrees
- SLR x4 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
- BAPS, ball toss, body blade
- Forward, backward, lateral walking in parallel bars
- Double leg heel raises, progress to single leg

GOALS

- No extensor lag
 - No effusion
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WEEKS 4 – 6

- Brace locked at 0-20 degrees
- Continue appropriate previous exercises
- PROM, AROM, AAROM to regain full motion
- Standing SLR x4 with Theraband bilaterally

GOAL

- Full AROM

WEEKS 6 - 8

- D/C brace
- 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
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WEEKS 8 - 12

- Continue appropriate previous exercises
- Hamstring 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

GOALS

- No thigh atrophy
- Walk 2 miles at 15 min/mile pace

MONTHS 3 - 4

- Continue appropriate previous exercises with progressive resistance
- Agility drills / Plyometrics
- Sit-up progression
- Progressive weight training program
- Transition to home / gym program

GOAL

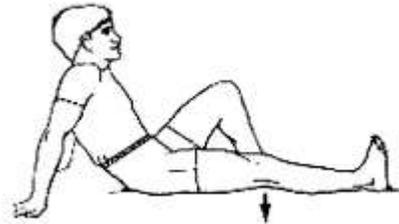
- Return to all activities

- ****NO CONTACT SPORTS UNTIL 6 MONTHS POST-OP****

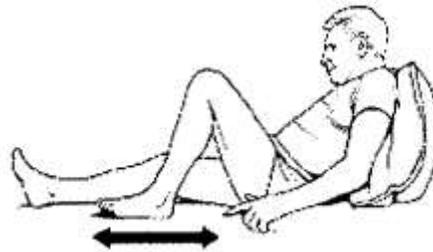
KNEE POST-OP PHASE I

Perform exercises below frequently: 30 reps, 3 – 5x a day

Quad Isometrics



Heel Slides



Active Assisted Motion



Ice Position 15 minutes 2-3 x per day

