



The Orthopaedic & Fracture Clinic

Arthroscopic Microfracture Rehabilitation Protocol

Phase I (0 – Two Weeks Post Op)

Goals:

- Protect the repaired area.
- Maintain full knee extension.
- Knee flexion to 90 degrees.
- Decrease joint effusion and soft tissue edema.
- Regain quadriceps control and strength.

Activities:

- CPM: CPM at home for up to 10 hours per day. Start at minus five to 30-40 degrees and gradually progress to 90 degrees as tolerated. Allow five second extension and flexion pause at the ends of available motions.
- Braces and Crutches: For patellar and trochlear groove lesions, you may have a brace with restricted knee motion 0 to 30 degrees. Weight-bearing is allowed with the brace in place and use of crutches. You can progress to full weight-bearing once good quadriceps control and no pain with ambulation is accomplished. For femoral condyle defects, no brace is used, but restricted weight-bearing will be necessary and will be directed by your physician.
- Cold Application: Use of elevation and cold 15 to 20 minutes every two to four waking hours the first three days or until edema stabilizes. Elevation should continue for seven to 14 days. Use of compressive tubigrip can also be used to assist with edema reduction.
- Exercises: heel prop, heel slides, quad sets, SLR, SL hip abduction, prone hip extension and ankle pumps.

Phase II (Two – Eight Weeks Post Op)

Goals:

- Protect the knee from over-stress and allow healing.
- Regain full motion.
- Progress muscle strengthening.

Activities:

- CPM: Continue CPM use as directed by your physician or physical therapist.
- Crutch and Brace Use: Continued per procedure performed and physician guidelines.
- Exercises: heel prop, quadriceps sets, three way SLR, standing hamstring curls, heel slides, SAQ, heel raises, stationary biking, core exercises. (Add weight to SLR exercises as knee control and strength improves.)
- Electric Stimulation: Biofeedback for quadriceps muscle reeducation and edema reduction techniques as indicated.

Phase III (8 – 12 Weeks Post Op)

Goals:

- Walk normally.
- Regain full ROM.
- Regain muscle strength.

Activities:

- Discontinue CPM if motion is full and no joint effusion.
- Discontinue crutch and brace use as advised by physician. Progress ambulation off of the crutches as gait normalizes and no limp present. Two crutches to one crutch to unassisted ambulation.
- Exercises: As above, increasing weights and repetitions. Progress to closed chain exercises: squats, step ups, multi-hip machine, hamstring curl and core exercises for abdominal, back and lateral trunk musculature. AVOID deep squat activities (30 to 45 degrees only during this phase) and any exercise that produces crepitus or pain in the joint.
- Proprioception exercises and limb balance control exercises with special attention to knee valgus movement positions.

Phase IV (12 – 18 Weeks Post Op)

Goals:

- Regain full strength.
- Gradual return to full activity.

Activities:

- Progress all exercises: weights, sets, and repetitions, and as symptoms allow and strength and proprioception normalize gradually return to full activity.