

POST-OPERATIVE REHABILITATION: KNEE CARTILAGE RESTORATION

Therapy Plan: Twice per week for 0-3 months, once per week for 3-6 months

ROM Progression

Passive knee motion for 0-2 weeks after surgery restricted to pain-free range from 0-90 degrees.
Progress ROM as tolerated after 2 weeks with the goal of symmetric full motion at 6-8 weeks.

Weight Bearing Progression

Initial weight bearing 0-6 weeks after surgery should be 25% body weight with the foot flat on the ground.

- Progress weight bearing over weeks 6-8 with the goal of removing crutches at 8 weeks
- Do NOT progress to one crutch - gait must be pain free and non-compensatory to remove both crutches
- Brace should remain in place until adequate knee stability, then may wean out over following 1-2 weeks

Initial Post-Operative Physical Therapy Visit

- Correctly perform 25% maximum body weight foot flat weight bearing with crutches
- Instruct on leg bridge for extension, heel slides for flexion, ankle pumps
- Isometric exercises for core, glutes, quadriceps, hamstrings

Phase 1 Physical Therapy (0-6 weeks): protect the joint, progress ambulation

- NO open-chain exercises
- Manual therapy 20+ minutes per session, stationary bike 20-60 minutes/day (NO resistance)
- Soft tissue mobilization, patellar mobilization, isometric exercises, core strengthening
- Brace locked in extension for ambulation until full control, then may unlock for full motion

Phase 2 Physical Therapy (6-12 weeks): progressive strengthening

- Initiate closed-chain strengthening and planks advancing as tolerated
- Progress off crutches weeks 6-8 with tactile and verbal cueing for non-compensatory gait patterning
- Proprioceptive training
- Soft tissue mobilization, patellar mobilization, isometric exercises, core strengthening
- Elliptical and pool running may start at 10 weeks, straight treadmill running may start at 12 weeks

Phase 3 Physical Therapy (12-24 weeks): return to pre-injury level

- Focus on functional exercises in all planes, advance only when fully controlled
- Advance closed-chain and core strengthening
- Proprioceptive training
- Agility drills may start at 14 weeks, sport-specific drills and plyometrics may start at 16 weeks

Phase 4 Physical Therapy (24+ weeks): return to sport

- Full return may take a full 6-12 months or more
- Advance closed-chain and core strengthening as needed
- Continue proprioceptive training, agility drills, and sport-specific drills as needed