

## Cartilage Repair or Transplantation - Femoral Condyle Physical Therapy Protocol

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**Patient Name:** \_\_\_\_\_

**Date of Surgery:** \_\_\_\_\_

**Procedure:** Right / Left Cartilage Restoration of Medial / Lateral Femoral Condyle

**Associated Procedure (checked if performed):**

- Partial Meniscectomy
- Meniscus Repair
- Meniscus Allograft Transplantation

**Frequency:** 2x per week for \_\_\_\_\_ weeks

**Continuous Passive Motion (CPM) Machine**

- Initiate day 1 after surgery
- Perform 3x per day in 2-hour sessions (6 hours per day)
- Guidelines:
  - Begin 0-40° and advanced 5-10° daily as tolerated.

**Phase I (0-6 weeks): *Period of protection.***

- **Weightbearing:** Non-Weight Bearing (NWB)
- **Brace:** Locked in extension at all times except for hygiene, CPM and home exercises.
- **ROM:**
  - Per CPM Guidelines above
  - PROM/AAROM and stretching under guidance of PT
  - Goal: Full ROM by 6 weeks
- **Therapeutic exercises (all NWB):**
  - Quad sets, SLR, heel slides, hamstring isometrics, calf pumps, patella mobilization
  - Week 6: Stationary bike without resistance

**Phase II (6-12 weeks):**

- **Weightbearing/Brace:**

- Gradual return to full weight bearing (WBAT). Continue crutch use, but increase weight bearing gradually:
  - 25% week 6
  - 50% week 7
  - Full weight bearing week 8. Unlock and discontinue brace.
- **ROM:** Full without limitations
- **Therapeutic exercises (all NWB):**
  - Advance Phase I exercises
  - Gait training
  - Begin closed chain activities (wall sits, mini-squats, toe raises)
  - Week 10: Begin unilateral stance activities, balance training, hamstring strengthening, theraband resistance exercises 0-30°

\_\_\_ **Phase III (3-6 months): *Sport-focused conditioning.***

- **ROM:** Continue full active ROM.
- **Therapeutic Exercises:**
  - Treadmill walking program
  - Progress balance and proprioception exercises
  - Wall squats, lunges
  - Advance to elliptical, stairmaster, bike, and pool as tolerated

\_\_\_ **Phase IV (>6 months): *Return to athletic activity***

- Low impact plyometric exercises once full quadriceps and hamstring strength achieved
- Jogging and running progression program initiated at 6 months
- Sports specific activity and impact activities initiated at 8 months
- Criteria to return to sports (9 months):
  - Full pain free ROM
  - Normal isokinetic evaluation and function tests
  - Satisfactory performance of sport specific activities without effusion