

# Cartilage Restoration Rehabilitation Protocol

### (Patellar Facet)

Phase	Goals	Precautions/Restrictions	Treatment
Weeks 0-6	<ul> <li>Protect surgical site</li> <li>Manage swelling and pain</li> <li>Achieve and maintain good quadriceps activation</li> <li>Reduce muscle atrophy</li> </ul>	<ul> <li>WBAT in knee immobilizer</li> <li>ROM as tolerated (Do not force)</li> </ul>	<ul> <li>PRICE</li> <li>Quadriceps activation and strength should be emphasized</li> <li>Knee flexion and terminal extension ROM</li> <li>Gentle stretching of hamstrings, calf to tolerance</li> <li>OKC hip strengthening in all planes</li> <li>Ok to initiate stationary biking without resistance (within ROM limitations)</li> <li>Modalities as indicated</li> <li>Initial Visit: FOTO, LEFS</li> </ul>
Weeks 6-8	<ul> <li>Achieve full ROM by 12 weeks</li> <li>Ambulate community distances by 12 weeks</li> </ul>	<ul> <li>WBAT progressing to full without immobilizer</li> <li>Progressive range of motion (Do not force)</li> <li>No impact (running, cutting, pivoting)</li> <li>Avoid excessive patellar loading (avoid deep knee flexion, knees over toes)</li> </ul>	<ul> <li>Begin CKC strengthening (avoid anterior knee pain)</li> <li>Limit loaded knee flexion angle to 30 degrees or less</li> <li>Normalize calf, hamstring, quadriceps mobility</li> <li>Modalities as indicated</li> <li>Week 6: FOTO, LEFS</li> </ul>
Weeks 8-12	<ul> <li>Achieve full ROM by 12 weeks</li> <li>Achieve full weight bearing by 12 weeks</li> <li>Wean fully from crutches</li> <li>No effusion to knee</li> <li>Restoring strength of quadriceps, hamstrings, hips</li> </ul>	<ul> <li>Discontinue knee brace when quad control achieved</li> <li>No impact (running, cutting, pivoting)</li> </ul>	<ul> <li>Progress CKC into greater ROM (&lt;90), single leg, multi-planar, and with resistance as tolerated</li> <li>Initiate proprioceptive training</li> <li>Initiate bike/elliptical for cardio fitness</li> <li>Week 12: FOTO, LEFS</li> </ul>

This protocol is not meant to be prescriptive but a recommendation to guide the rehabilitation process. Each patient's progress may vary based on specifics of their injury and procedure.

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#### Weeks 12-24

- Preparation for more advanced exercise/activity
- Initiation of sport specific drills (per MD)
- Ready to begin impact by 6-9 months (per MD)
- Normalize asymmetries
- Loaded range of motion <90 degrees)</li>
- Proper exercise form and control during exercise performance
- Progress strength, endurance, and proprioception
- Advance cardiovascular conditioning
- Week 24: SGYM with testing
  - o Y- balance
  - o Body weight single leg press
  - Humac testing (90/180 deg/sec)
  - o FOTO, LEFS

#### Weeks 24+

- Begin impact training once cleared by MD (jumping, running etc.)
- Unrestricted return to activity (Months 9-12)
- Avoid running/jumping on a painful or swollen knee
- Proper form and control during exercise performance
- Advance progressive exercises in all planes
- Initiate plyometric activity
- Jumping progression (double to single leg)
- Return to run program (walk/jog)
- Anticipated final visit: SGYM with testing
  - Y- balance
  - Humac testing (90/180 deg/sec)
  - o Single leg vertical jump
  - o Single leg jump for distance
  - o Single leg triple jump
- FOTO, LEFS

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