Knee Stabilization with Cartilage Protection Rehabilitation Protocol

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This protocol provides general guidelines for rehabilitation following knee stabilization with cartilage protection. Progression should be individualized based on the procedure, healing, and patient response, with modifications as directed by the surgeon. (multi-ligament with cartilage protection)

Phase	Goals	Precautions / Restrictions	Treatment
Weeks 0-6	● **Protect surgical site** ● Manage swelling and pain ● Achieve and maintain good quadriceps activation ● Reduce muscle atrophy	● PWB with knee brace locked in extension with crutches ● ROM 0-90 x 4 weeks ● ROM as tolerated week 5-6	**General guidelines** ● PRICE ● Quadriceps activation and strength should be emphasized ● Knee flexion and terminal extension ROM ● Gentle stretching of hamstrings, calf to tolerance ● Ankle strengthening ● OKC straight leg raises all planes (locked in extension) as able ● Initiate stationary biking without resistance (within ROM limitations) ● Modalities as indicated **Initial Visit** ● FOTO, LEFS
Weeks 6-8	● Progressive ROM ● Reduce effusion to knee ● Minimize muscle atrophy ● Ambulate community distances by 12 weeks	● WBAT in brace ● Transition to short hinged brace ● Progressive range of motion (**Do not force)** ● **No impact (running, cutting, pivoting)** ● **Avoid excessive patellar loading (avoid deep knee flexion, knees over toes)**	**General guidelines** ● Begin CKC strengthening (**avoid anterior knee pain)** ● Limit loaded knee flexion angle to **30 degrees** or less ● **Normalize calf, hamstring, quadriceps mobility** ● Modalities as indicated **Week 6** ● FOTO, LEFS
Weeks 8-12	● Achieve full ROM by 12 weeks ● Achieve full weight bearing by 12 weeks ● **No effusion to knee** ● Restoring strength of quadriceps, hamstrings, hips	● Continue with short hinged brace ● **No impact (running, cutting, pivoting)**	**General guidelines** ● Progress CKC into greater ROM (<90), single leg, multi-planar, and with resistance as tolerated ● Initiate proprioceptive training ● Initiate bike/elliptical for cardio fitness **Week 12** ● FOTO, LEFS
Weeks 12-24	● Preparation for more advanced exercise/activity ● Initiation of sport specific drills (**per MD)**	● Continue with short hinged brace ● Loaded range of motion **<90 degrees**)	**General guidelines** ● Progress strength, endurance, and proprioception ● Advance cardiovascular conditioning

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	● Ready to begin impact by 6-9 months (**per MD)** ● **Normalize asymmetries**	● Proper exercise form and control during exercise performance	**Week 24** ● Testing ● Y- balance ● Body weight single leg press ● Humac testing (**90/180 deg**/sec) ● FOTO, LEFS
Weeks 24+	● Begin impact training once cleared by MD (jumping, running etc.) ● Unrestricted return to activity (Months 9-12)	● Progress from brace **per MD clearance** ● **Avoid running/jumping on a painful or swollen knee** ● Proper form and control during exercise performance	**General guidelines** ● Advance progressive exercises in all planes ● Initiate plyometric activity ● Jumping progression (double to single leg) ● Return to run program (walk/jog) **Anticipated final visit** ● Testing ● Y- balance ● Humac testing (**90/180 deg**/sec) ● Single leg vertical jump ● Single leg jump for distance ● Single leg triple jump ● FOTO, LEFS