



Arthroscopic Marrow Stimulation Patella and/or Trochlea Rehab Protocol

Description of Procedure: Accessing the bone marrow through the subchondral plate either by abrading, drilling or microfracture.

Safety Warning: Avoid stairs and inclines for six months.

	Weight Bearing	Brace	ROM	Therapeutic Exercise
Phase I: 0 to 6 Weeks	Full weight bearing in full extension	0 to 4 Weeks: Locked at 0 to 30° (remove for exercise); brace is worn until independent straight leg raise can be performed without extension lag	0 to 4 Weeks: Patient should gain at least 90° by week 4 and 120° to 130° by week 6	Quad sets, SLR, hamstring isometrics - complete exercises in brace if quad control is inadequate; core proximal program; normalize gait; FES biofeedback as needed
Phase II: 6 to 12 Weeks	Progress to full weight bearing if normal gait	None	Full active range of motion	Progress bilateral strengthening using resistance less than patient's body weight, progress to unilateral closed chain exercises; continue opened chain knee strengthening (no squats, wall slides, lunges or knee extension exercises)
Phase III: 12 Weeks to 9 Months	Full, with a normalized gait pattern	None	Full and pain-free	12 Weeks to 6 Months: Advance bilateral and unilateral closed chain exercises with emphasis on concentric/eccentric control, continue with biking, elliptical and treadmill, progress balance activities; form exercises for desired sport if no pain or effusion <i>**Avoid stairs and inclines for 6 months</i> 6 to 9 Months: Advance strength training, initiate light jogging - start with 2 minute walk/2 minute jog, emphasize sport-specific training

	Weight Bearing	Brace	ROM	Therapeutic Exercise
Phase IV: 9 to 24 Months	Full, with a normalized gait pattern (allow stairs and inclines if no knee pain or effusion)	None	Full and pain-free	Continue strength training: Emphasize single leg loading, begin a progressive running and agility program - high impact activities (basketball, tennis, etc.) may begin at 12 to 24 months if pain-free

If pain or swelling occurs with any activities, they must be modified to decrease symptoms.

