This rehabilitation program is designed to return the individual to their full activities as quickly and safely as possible, following an arthroscopic MCL repair. Modifications to this guideline may be necessary dependent on physician specific instruction or other procedures performed. This evidence-based MCL repair guideline is criterion-based; time frames and visits in each phase will vary depending on many factors. The therapist may modify the program appropriately depending on the individual's goals for activity following an arthroscopic MCL repair.

This guideline is intended to provide the treating clinician a frame of reference for rehabilitation. It is not intended to substitute clinical judgment regarding the patient's post-operative care based on exam/treatment findings, individual progress, and/or the presence of concomitant procedures or post-operative complications. If the clinician should have questions regarding post-operative progression, they should contact the referring physician.

Precautions:

- Avoid patellofemoral irritation
- Avoid extension beyond 20 degrees and flexion beyond 90 degrees for 2 weeks
- Bracing up to 6 weeks as determined by physician, can progress to unlocked during walking once able to complete SLR without extension lag
- Weight Bearing:
    - Toe touch weight bearing 2 weeks
    - WBAT unless otherwise specified after 2 weeks
- If patient has a concomitant injury/repair, treatment may vary-consult with physician.

Phase	Suggested Interventions	Goals/Milestones for Progression
Phase I Weeks 0-2	Precautions: Toe touch weight bearing with hinged brace locked in 30 degrees of flexion. Therapy: • Brace unlocked with home exercise program • Begin exercise program: ankle pumps, multi angle quad sets, hamstring sets, isometric hip extension, patellar mobilizations, SLR, heel slides • Modalities for pain and edema control • Patellar mobilizations • NMES for quad activation	Goals of Phase: 1. Skin healing 2. Edema control 3. Full knee extension by 2 weeks 4. 90 degrees of knee flexion

	• Blood Flow Restriction (BFR) training can begin after suture removal and progress along with recommendations per physician approval.	
Phase II Weeks 2-6	Precautions: Hinged brace worn during exercise to avoid medial joint stress Therapy: • Recumbent or upright bike with ROM allows or week 4 no resistance • Gait training • Exercise Examples: o Stretching to achieve full knee flexion mobility o Stationary bike as ROM allows o SLR and hip abduction with resistance o Multi-angle quad sets o 4-way hip with sport cord o Hamstring strengthening: sub maximal o Gastroc/soleus stretching and strengthening	Goals of Phase: 1. Healing 2. Pain and edema control, modalities PRN 3. Full knee flexion by week 6 4. Ambulation without assistive device when quad control is achieved and gait normalized Criteria to Advance to Next Phase: 1. Healing appropriate for stage to move on 2. Range of motion 0-130 degrees or consistent with contralateral knee flexion range of motion 3. SLR without extension lag
Phase III Weeks 6-12	Precautions: Fit with functional brace per physician preference Therapy additions: • Gait training without assistive device • No pivoting on planted foot; full open kinetic chain exercises • Closed kinetic chain program with good knee control; limited to 70 degrees of knee flexion Exercise Examples: o Stationary bike o Proprioception rehab: BAPS board, single leg stance o Treadmill	Goals of Phase: 1. Climb stairs reciprocally 2. No pain 3. Strength 80% of uninvolved limb 4. Neuromuscular control of Lower extremity Criteria to advance to Next Phase: 1. Normal gait pattern 2. Pain control 3. Edema managed 4. Strength 80% of uninvolved limb

	○ Lunges ○ B squats progressing to unilateral ○ Plyometrics (once 80% strength ratio is achieved) ○ Preparation for return to sport activity	
Phase IV Weeks 12-20	Exercise Examples: ○ Initiation of resisted hamstring curls, progressing as tolerated ○ Single leg calf raises ○ Leg extensions 90-45 with gradual increase in ROM (see general guidelines above) ○ Plank progressions ○ Leg press progressions ○ Eccentric focused program ○ Goblet squat ○ Offset squats (biased for surgical side) ○ DB eccentric step ups (forward and lateral) ○ Lateral step downs ○ Standing fire hydrant holds ○ Single leg squats ○ Higher level proprioceptive progressions ○ Sport-specific training as indicated	Goals of Phase: 1. Improve muscular strength and endurance 2. Improve confidence in involved limb 3. Prepare for return to sport Criteria to Discharge from Physical Therapy: 1. Limb symmetry index of 90% or greater on functional hop tests and Y balance test 2. No pain or instability with functional progression of sport specific skills 3. <10% strength deficit in quads, hamstrings and gluteals 4. >90% on all outcome measures