

POST-OPERATIVE REHABILITATION PROTOCOL

## Nonoperative MCL Tear

William McLaughlin, MD | Sports Medicine Surgery | Advanced Bone & Joint

These rehabilitation guidelines are presented in a criterion-based progression program. General time frames are given for reference; individual patients will progress at different rates depending on age, associated injuries, pre-injury health status, rehab compliance, tissue quality, and injury severity. Specific time frames, restrictions, and precautions may also be given to protect healing tissues. This protocol is not a substitute for clinical decision-making by the treating therapist or referring physician.

### Phase 1 | ~0-2 Weeks

#### GOALS FOR THIS PHASE

- Protection of the knee.
- Normalize gait.
- Eliminate effusion/swelling.

#### Precautions

- Crutches as needed if painful weight-bearing.
- Hinged knee brace 0-30° for ambulation (grade 2/3 injuries).
- CryoCuff 3-5x/day for 20 minutes; ice after every therapy session.

#### Range of Motion

- Soft tissue mobilizations/techniques as tolerated.
- LE ROM as tolerated (avoid excessive hamstring stretching).

#### Therapeutic Exercises

- UE / contralateral LE / core strengthening as tolerated.
- Single-leg stance on stable surface, progress to unstable.
- 3-way SLR — abduction, extension, flexion (avoid adduction).
- Short-arc quad strengthening, hamstring curls.
- Mini squats, lunges, step-ups/downs, heel raises, lateral steps, eccentric hamstring.

#### Cardiovascular

- Stationary bike, elliptical, UBE.

#### Progression Criteria

- Full, painless ROM.
- Normal gait.

## Phase 2 | ~2-4 Weeks

### GOALS FOR THIS PHASE

- Restore/maintain full ROM.
- Minimize pain and swelling.
- Progress strengthening.

### Precautions

- Hinged knee brace, unlock full ROM.
- CryoCuff 3-5x/day for 20 minutes; ice after every therapy session.

### Range of Motion

- Continue Phase 1 exercises.
- Manual passive knee extension to neutral as needed.
- Patellar mobilizations, soft-tissue mobilization.
- Grade 3 injuries — caution with excessive adductor stretching.

### Therapeutic Exercises

- Continue Phase 1 exercises.
- Balance/proprioception — progress to unstable surfaces, perturbations.
- LE — add adduction SLR (weight proximal to knee), clean, snatch, squats.
- Increase ROM for closed-chain strengthening (avoid >90° for grade 3).
- Plyometrics — bilateral hopping on level surface.

### Cardiovascular

- Continue Phase 1.
- Walk/run progression.

### Progression Criteria

- Full ROM.
- No swelling.
- No instability.

## Phase 3 | ~5-8 Weeks

### GOALS FOR THIS PHASE

- Maintain/restore full ROM.
- Improve quadriceps strength and endurance.
- Improve hip and core strength, balance, and stability.
- Normalize gait.

### Precautions

- Continue ice after PT.
- Avoid post-activity swelling.

### Range of Motion

- Continue Phase 2 exercises.
- Soft tissue / scar mobilization as needed.
- PNF dynamic stretching.

### Therapeutic Exercises

- Continue Phase 2 exercises.
- LE strengthening — progress to baseline.
- Plyometrics — box jumps, zig-zag hops, squat jumps, split jumps; progress to single leg.
- Progress agility and sport-specific activity.

### Cardiovascular

- Progress to baseline.

### Progression Criteria

- Completion of running program.
- 85% quadriceps strength.

## Phase 4 | ~9-12 Weeks

### GOALS FOR THIS PHASE

- Restore/maintain full ROM.
- Increase strengthening.
- Return to sport / work.

### Precautions

- Consider brace wear for sporting activities.
- Post-activity soreness should resolve within 24 hours.
- Avoid post-activity swelling.

- Continue ice after PT.

### Range of Motion

- Continue with flexibility exercises.

### Therapeutic Exercises

- Progress Phase 3 activities with resistance/weight.
- Sport-specific / contact activities OK to resume — begin 50% speed and progress to full speed.
- Start with single-plane activities, then progress to multi-plane.

### Cardiovascular

- Continue previous-phase exercises.

### Progression Criteria

- At least 90% quadriceps strength.
- Complete sport-specific / work program.
- Pass return-to-sport test.
- Physician clearance.

## CRITERIA FOR RETURN TO SPORT / FULL ACTIVITY

- 10-rep-max single-leg squat with external weight.
- Single broad jump landing on one foot.
- Triple broad jump landing on one foot.
- Single-leg forward hop.
- Single-leg crossover hop.
- Single-leg medial and lateral hop.
- Single-leg medial and lateral rotating hop.
- Single-leg vertical hop.
- Single-leg triple hop.
- Timed 6-meter hop.
- 10-yard lower-extremity functional test.
- 10-yard pro-agility run.

*This protocol is a general guideline. Progression is patient-specific and at the discretion of William McLaughlin, MD.*