



Orthopedic Surgery, Sports Medicine & Arthroscopy Specialists

Jonathan Watson, MD

REHABILITATION PROTOCOL- Nonoperative MCL tear

The rehabilitation guidelines are presented in a criterion based progression program. General time frames are given for reference to the average, but individual patients will progress at different rates depending on their 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 and the surgical repair/reconstruction. It should not be a substitute for one's clinical decision making regarding the progression of a patient's post-operative course based on their physical exam findings, individual progress, and/or the presence of post-operative complications. The therapist should consult the referring physician with any questions or concerns.

Special attention must be given to impairments that caused the initial problem. For example, if the patient is s/p partial medial meniscectomy and they have a varus alignment, post-operative rehabilitation should include correcting muscle imbalances or postures that create medial compartment stress.

INDIVIDUAL CONSIDERATIONS: S/p

PHASE 1- (~0-2 weeks)

REHAB GOALS	<ol style="list-style-type: none">1. Protection of the knee2. Normalize gait3. Eliminate effusion/swelling
PRECAUTIONS	<ol style="list-style-type: none">1. Crutches as needed if painful weight-bearing.2. Hinged knee brace 0-30 deg for ambulation(grade 2/3 injuries).3. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none">○ Soft tissue mobilizations/techniques as tolerated○ LE ROM as tolerated (avoid excessive hamstring stretching)
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none">○ 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 EXERCISE	Stationary bike, elliptical, UBE

PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ Full, painless ROM ○ Normal gait
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PHASE 2- (~2-4 weeks)

REHAB GOALS	<ol style="list-style-type: none"> 1. Restore/maintain full ROM 2. Minimize pain and swelling 3. Progress strengthening
PRECAUTIONS	<ol style="list-style-type: none"> 1. Hinged knee brace, unlock full ROM 2. Cryocuff 3-5 times per day for 20 minutes and ice after every therapy session
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> ○ Continue phase 1 exercises ○ Manual passive knee extension to neutral as needed ○ Patellar mobilizations, soft tissue mobilization ○ Grade 3 injuries- caution excessive adductor stretching
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> ○ Continue phase 1 exercises ○ Balance/proprioception- progress to unstable, perturbations, etc ○ LE- add adduction SLR (weight proximal to knee), clean, snatch, squats ○ Increase ROM for closed chain strengthening (avoid >90 deg for grade 3) ○ Plyometrics- bilateral hopping on level surface
CARDIOVASCULAR EXERCISE	Continue phase 1 Walk/run progression
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ Full ROM ○ No swelling ○ No instability

PHASE 3- (~5-8 weeks)

REHAB GOALS	<ul style="list-style-type: none"> ○ Maintain/restore full ROM ○ Improve quad strength & endurance ○ Improve hip & core strength, balance, stability ○ Normal gait
PRECAUTIONS	<ul style="list-style-type: none"> ○ Continue ice after PT ○ Avoid post activity swelling
RANGE OF MOTION EXERCISES	<ul style="list-style-type: none"> ○ Continue exercises from phase 2. ○ Soft tissue/scar mobilizations as needed ○ PNF dynamic stretching

SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> ○ 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 & sport specific activity
CARDIOVASCULAR EXERCISE	Progress to baseline
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ Completion of running program ○ 85% quad strength

PHASE 4- (~9-12 weeks)

REHAB GOALS	<ul style="list-style-type: none"> ○ 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 EXERCISES	Continue with flexibility exercises
SUGGESTED THERAPEUTIC EXERCISES	<ul style="list-style-type: none"> ○ 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 and move to multi-plane
CARDIOVASCULAR EXERCISE	Continue previous phase exercises
PROGRESSION CRITERIA	<ul style="list-style-type: none"> ○ At least 90% quad strength ○ Complete sport specific/work program ○ Pass return to sport test ○ Physician clearance

RETURN TO SPORT TEST

- 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