TROPICAL
MEDICAL GROUP

Dx: ☐ Right ☐ Left

Patient Name: _____

Date of Surgery: _____

PT/OT: Evaluate and treat. Follow the following protocol.

Signature/Date: _____

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MCL Injury Rehabilitation

Phase I: Brace for the first 6 weeks after injury (grade 2 and 3) 3 weeks after injury (grade 1). Grade 2 and 3 injuries locked in extension x 10-14 days prior to initiating physical therapy and then limited 0-90 degrees for an additional 2 weeks.

Ice the knee to help with pain and swelling.
Place a towel or cloth between the skin and the ice to prevent skin injury.
Ice for 20 minutes, three times a day.
Elevate the leg and use elastic stockings if the leg is swollen.
As the pain lessens and the swelling decreases, try to gradually regain knee motion.
Avoid pivoting or twisting the knee because it might be unstable and give out.
Be careful getting out of cars, or catching your toe on a rug.
When walking, bear weight according to your doctor's instructions.
Progress to no crutch(es) or brace when you can walk without a limp and there is no pain.

At about two or three weeks following injury, the pain is usually subsiding and the swelling is lessened. You can now try to stretch the knee to regain motion. Stationary cycle, swimming (flutter kick only) and the following exercise program are recommended.

Exercise Program

Stationary Bicycle
Days per week: 5-7
Times per day: 1-2

Utilize a stationary bicycle to move the knee joint and increase knee flexion. If you cannot pedal all the way around, then keep the foot of your injured leg on the pedal, and pedal back and forth until your knee will bend far enough to allow a full cycle. Most people are able to achieve a full cycle revolution backwards first, followed by forward. You may ride the cycle with no resistance for up to 10-15 minutes, 1 to 2 times a day. Set the seat height so that when you are sitting on the bicycle seat, your knee is fully extended with the heel resting on the pedal in the fully bottom position. You should then actually ride the bicycle with your forefoot resting on the pedal.

Range of Motion and Strengthening Exercises (brace off)

Days per Week: 5-7
Times per Day: 1-2

Quadriceps setting	1-2 sets of 15-20 reps
Heel prop	5 minutes
Heel slides with towel assist	5 to 15 minutes
Straight Leg Raises	3 sets of 10 reps
Short-Arc Lift	3 sets of 10 reps
Standing hamstring curl	3 sets of 10 reps
Standing toe-raises	3 sets of 10 reps
Hip abduction	3 sets of 10 reps
Partial squats	3 sets 15 reps
Wall slides	3 sets of 15 reps

Phase II: Six weeks after injury onward (grade 2 and 3) 3 weeks after injury onward (grade 1)

Goal: rebuild the strength of the knee muscles after injury to the MCL of the knee.

Range of Motion and Strengthening Exercises

Days per week: 3
Times per day: 1

Quadriceps setting	1-2 sets of 15-20 reps
Heel prop	5 minutes
Prone hang	5 minutes
Heel slides with towel assist	5 to 15 minutes
Straight leg raises	3 sets of 10 reps
Short-Arc Lift	3 sets of 10 reps
Standing hamstring curl	3 sets of 10 reps
Standing toe-raises- single leg	3 sets of 10 reps
Hip abduction	3 sets of 10 reps
Squat to chair	3 sets 15 reps
Wall slides	3 sets of 15 reps
Single leg strengthening progression	

Stretching Exercises

Days per week: 5-7
Times per day: 1-2

Hamstring stretch	3-5 reps holding 15 to 30 seconds
Quadriceps stretch	3-5 reps holding 15 to 30 seconds
Calf Stretch	3-5 reps holding 15 to 30 seconds

Optional Additional Weight Training

Days per week: 2-3
Times per day: 1
3 sets of 20 repetitions

Seated Leg Press
Roman Chair
Knee Extension machine (short-arc)
Hamstring Curl
Calf Raise Machine
Hip Flexor Machine
HIP Abductor/Adductor Machine

Cardiovascular Conditioning

Days per week: 1-2
Times per day: 1
Duration: 20-30 minutes

The following can be performed for conditioning: stationary bicycle, walking, rowing, elliptical trainer, and water workout

Precautions When Exercising
• Build up resistance and repetitions gradually
• Perform exercises slowly avoiding quick direction change and impact loading
• Exercise frequency should be 2 to 3 times a week for strength building
• Be consistent and regular with the exercise schedule

Principles of Strength Training
• Warm-up prior to exercising by stationary cycling or other means
• You are "warmed –up" when you have started sweating
• Gently stretch all muscle groups next
• Do exercises involving multiple muscle groups first and individual muscle groups last
• Do aerobic workouts after strength workouts
• Cool-down by stretching after finishing exercise

Precautions
The following exercises can cause injury to the knee and should be done with caution:
• Leg extension machine (quadriceps extensions)
• Stairmaster or stair climber machines
• Lunges
• Squats past 90 degrees of knee flexion
• High Impact and plyometric exercises

Criteria for return to competition (Usually 7-9 weeks after injury)

1. Full ROM
2. No instability
3. Muscle strength 85% of contralateral side
4. Proprioception ability satisfactory
5. No tenderness over MCL
6. No effusion
7. Quad strength normal
8. Knee Brace (if necessary)