

Non-Operative Rehabilitation of Isolated MCL Sprains

Name: _____

Date: _____

Diagnosis: _____

Date of Surgery: _____

This program may be accelerated for Grade I MCL Sprains or may be extended depending on the severity of the injury. The following schedule serves as guidelines to help return the patient to his/her pre-injury state. Please note that if there is any increase in pain or swelling or loss of range of motion, these serve as signs that the progression of the patient may be too rapid.



PHASE I -MAXIMAL PROTECTION PHASE

- **Goals:**
 - Early protected ROM
 - Prevent quadriceps atrophy
 - Decrease effusion/pain
- **Time of Injury: Day 1**
 - Ice, compression, elevation
 - Hinge knee brace non-painful ROM
 - If needed (to be determined by physician): crutches, weight-bearing as tolerated
 - PROM/AAROM to maintain ROM
 - Electrical stimulation to quads (8 hours/day)
 - Isometrics Quads:
 - Quad sets
 - Straight leg raises (flex)
 - Emphasize
 - Hamstring stretches
 - AAROM Knee flexion stretching to tolerance
- **Day 2**
 - Continue above exercises
 - Quadriceps sets
 - Straight leg raises (flexion, abduction)
 - Hamstring isometric sets
 - Well-leg exercises
 - Whirlpool for ROM (cold for first 3-4 days, then warm)
 - High voltage galvanic stimulation to control swelling
- **Day 3-7**
 - Continue above exercises
 - Crutches -weight-bearing as tolerated
 - ROM as tolerated
 - Eccentric quad work
 - Bicycle for ROM stimulus
 - Resisted knee extension with electrical muscle stim
 - Initiate hip adduction/extension
 - Initiate leg press isotonic
 - Brace worn at night, brace during day as needed
 - Continue ROM and stretching exercises



PHASE II -MODERATE PROTECTION PHASE

- **Criteria for Progression**



- No increase in instability
- No increase in swelling
- Minimal pain or tenderness
- PROM 0-100°
- **Goals**
 - Full painless ROM
 - Restore strength
 - Ambulation without crutches
- **Week 2**
 - Continue strengthening program with PREs
 - Continue electric muscle stim to quads during isotonic strengthening
 - Continue ROM exercises and stretching
 - Emphasize closed kinetic chain exercises; lunges, squats, squats, lateral step-ups
 - Bicycle for endurance and ROM stimulus
 - Water exercises, running in water forward and backward
 - Full ROM exercises
 - Flexibility exercises, hamstrings, quads, IT Band, etc.
 - Proprioception training (balance drills)
 - Stairmaster endurance work
 - lateral lunges, wall
- **Days 11-14**
 - Continue all exercises in week two
 - PREs emphasis quads, medial hamstrings, hip abduction
 - Initiate Isokinetics, sub-maximal -4 maximal fast contractile velocities
 - Begin running program if full painless extension and flexion are present



PHASE III -MINIMAL PROTECTION PHASE

- **Criteria for Progression**
 - No instability
 - No swelling/tenderness
 - Full painless ROM
- **Goals**
 - Increase strength and power
- **Week 3**
 - Continue Strengthening Program
 - Wall Squats
 - Vertical squats
 - Lunges
 - Lateral Lunges
 - Step ups
 - Leg Press
 - Knee Extension
 - Hip ABD/ADDuction
 - Hamstring Curls
 - Emphasis:
 - Functional Exercise Drills
 - Fast Speed Isokinetics
 - Eccentric Quads
 - Isotonic Hip ADD, Medial Hamstrings
 - Isokinetic Test

- Proprioception Training
- Endurance Exercise
- Stationary Bike 30-40 minutes
- Nordic Trac, Swimming, etc.
- Initiate Agility Program, Sport Specific Activities



PHASE IV –MAINTENANCE PROGRAM

- **Criteria to Progress to Phase IV**
 - Full ROM
 - No instability
 - Muscle strength 85% contralateral side
 - Proprioception ability satisfactory
 - No tenderness over MCL
 - No effusion
 - Quad strength; Torque /BW that fulfills criteria
- **Maintenance Program**
 - Continue Isotonic Strengthening Exercises
 - Continue Flexibility Exercises
 - Continue Proprioceptive Activities

Comments:

Frequency: _____ **times per week**

Duration: _____ **weeks**

Signature: _____

Date: _____