

Conservative Grade I, II, II Isolated MCL Sprain Rehabilitation Protocol

NOTE: The above program may be accelerated for first degree MCL sprains or may be extended depending on the severity of the injury. The below schedules are just guidelines. If there is any increase in pain or swelling or loss of ROM, these can serve as signs that the progression of the patient may be too rapid.

Phase I – Maximal Protection Phase

Goals:

- Early protected ROM
- Prevent quadricep atrophy
- Decrease effusion/pain

Immediate post-injury - Day 1:

- Ice, compression, and elevation
- Hinged knee brace or immobilizer if needed
- Crutches- weight bearing as tolerated
- PROM/AAROM to maintain ROM
- Isometric quadricep sets, flexion SLR's

Day 2:

- Continue above
- SLR's (flexion, extension and abduction)

- Hamstring sets

Days 3 – 7:

- Continue as above
- Brace worn at night, brace at day as needed
- Crutches WBAT
- ROM as tolerated
- Eccentric quad work
- Calf raises
- Bicycle for ROM stimulus
- Multi-angle isometrics
- Mini-squats and light leg press

Phase II – Moderate Protection Phase

Criteria for progression:

- No increase in instability
- No increase in swelling
- Minimal tenderness
- PROM 10 - 100

Goals:

- Full painless ROM
- Restore strength
- Ambulation without crutches

Days 8 – 10:

- Discontinue crutches if can walk without limp
- Continue ROM exercises(progress to full ROM exercises)
- Continue strengthening program with PRE's (emphasize quadriceps, medial hamstrings and hip abduction)
- Continue multi-angle isometrics
- Closed-chain strengthening (shuttle, leg press, mini-squats, step-ups etc)
- Stationary cycling
- Water exercises, running forward/backward
- Flexibility exercises (hamstrings, quadriceps, iliotibial band, gastrocnemius)

Days 11 – 14:

- Continue as week 2
- Initiate isokinetics, sub-maximal progressing to maximal with 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

Goal:

- Increase strength and power

Week 3:

- Continue strengthening program(emphasis on fast speed isokinetics, eccentric quadriceps,

hip abduction, medial hamstrings)

- Isokinetic test
- Proprioception training
- Endurance exercises
- Cross training (cycling, nordic track, stairmaster, swimming)
- Initiate agility program, sport-specific activities (do not progress if pain, limp or undue fatigue)

Phase IV – Maintenance Phase

Week 4 – 8:

- Continue isotonic/isokinetic strengthening exercises
- Continue flexibility exercises
- Continue proprioceptive activities
- Continue sport specific/agility/running drills

Return to Competition:

- When approved by physician
- Full ROM
- No tenderness over MCL
- No instability
- No effusion
- Muscle strength 85% of contralateral side
- Proprioceptive ability satisfactory
- Lateral knee brace(if necessary)