



Dr. O'Meara's

Isolated MLC Tear
Rehabilitation Protocol

www.PalomarOrtho.com



Isolated MCL Tear **Rehabilitation Protocol**

The Medial Collateral Ligament (MCL) supports the inside of the knee and prevents a “knock-knee” deformity. The ligament is injured when the knee is forced into a knock-knee or valgus position and the fibers of the ligament are torn.

When the MCL is torn, it must initially be protected in a brace until the torn fibers heal back in their proper position. Later, rehabilitation involves strengthening the muscles that support the knee and that protect the MCL.

Zero to Six Weeks

ROM Brace, 30 Degrees to Full Flexion.
Crutch Ambulation, Toe Touch only.
Stationary Bicycle

Six to Twelve Weeks

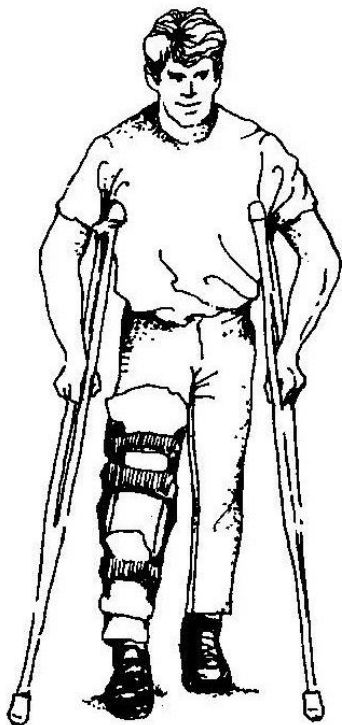
Neoprene Knee Sleeve
Discontinue Crutches
Stationary Bicycle
Quadriceps & VMO Strengthening (weight training)
Hamstring Stretching & Strengthening (weight training)
Adductor Strengthening (weight training)
Calf Strengthening (weight training)

Zero to Six Weeks

ROM Brace, 30 Degrees to Full Flexion.

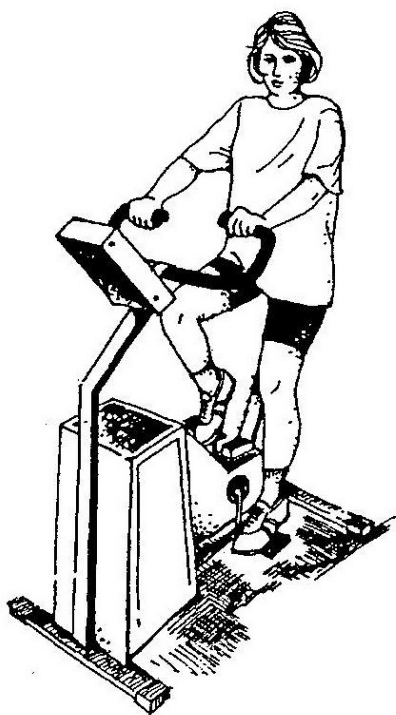
Crutch Ambulation, Toe Touch only.

Stationary Bicycle



Bracing & Protection

1. ROM Brace allowing 30 degrees to full flexion
2. Toe touch crutch ambulation



Bicycling

Bicycling is an excellent rehabilitative exercise. It provides aerobic training to the quads and hams and it provides low-stress quad strengthening. A stationary bicycle or street bicycle may be used. Place the seat in the highest comfortable position in order to minimize the PF forces. Try to use a bike that is equipped with toe clips or toe cages so that the hamstrings also get a work-out. Cycle 15-45 minutes every day and increase the resistance as you can tolerate it.

Six to Twelve Weeks

Neoprene Knee Sleeve

Discontinue Crutches

Stationary Bicycle

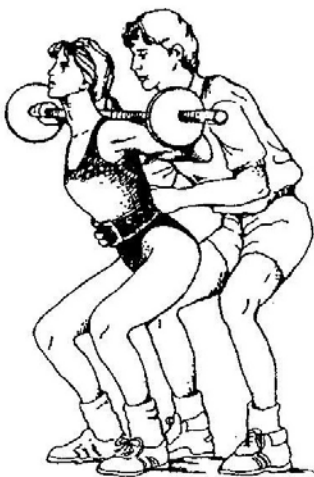
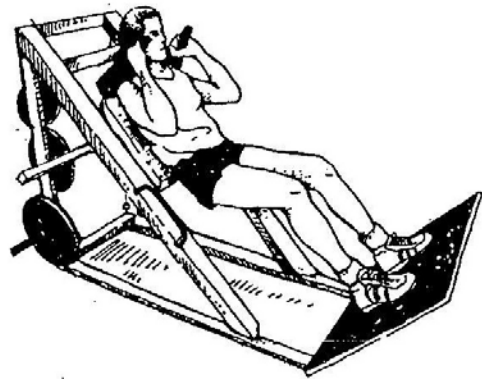
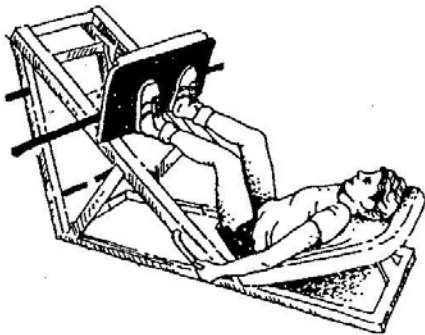
Quadriceps & VMO Strengthening (weight training)

Hamstring Stretching & Strengthening (weight training)

Adductor Strengthening (weight training)

Calf Strengthening (weight training)

Quadriceps Strengthening



The leg extension machine should **never** be used because it will significantly aggravate your PF pain and can cause **severe ligament injury**.

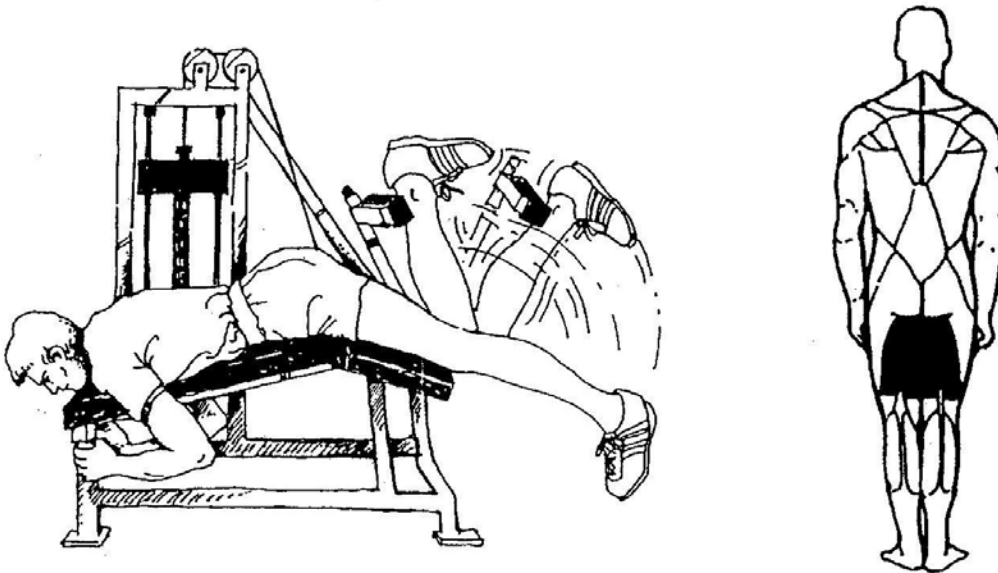


Each exercise should be performed as 3 sets of 15 repetitions, every other day. The amount of weight should be increased once you are able to complete a full 3 sets of 15 reps. The strength training should involve gentle smooth repetitions. No jerking or yanking!

In the third set of each exercise, try to “exercise to fatigue”. The most effective strength training and rehabilitation programs include at least one set of the maximum number of repetitions possible for each exercise performed (“exercise to fatigue”). Higher numbers of repetitions (15 – 20) favor increased muscle endurance while building muscle strength as well; so use a lighter weight that will allow at least 15 repetitions in a normal set.

Three sets of 15 – 20 reps performed every other day is an optimum strengthening and rehabilitation program. However, during the first month of strengthening, a single set program, every other day, is adequately effective at improving muscle strength and endurance.

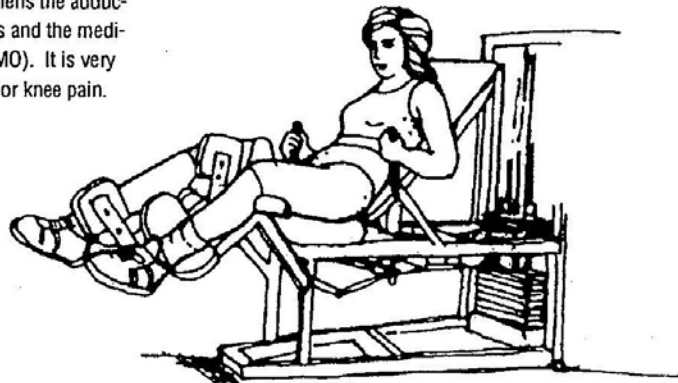
Hamstring Strengthening



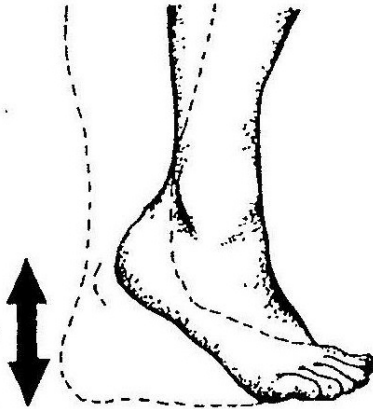
Adductor Strengthening

Adductor Strengthening

The adductor muscles are located on the inside of your thighs. This exercise strengthens the adductor muscles, the medial hamstrings and the medial quadriceps (vastus medialis - VMO). It is very effective in helping to relieve anterior knee pain.



Calf Strengthening



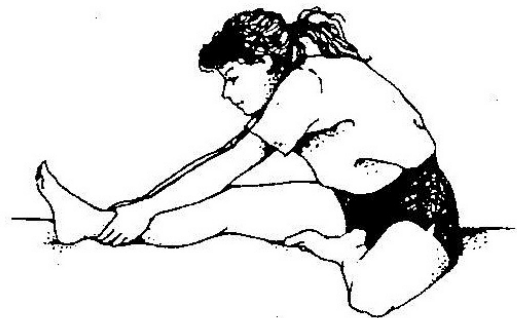
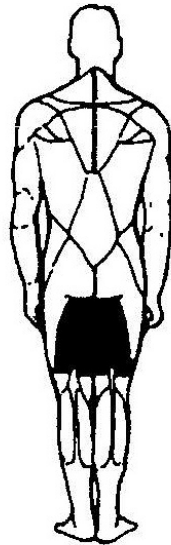
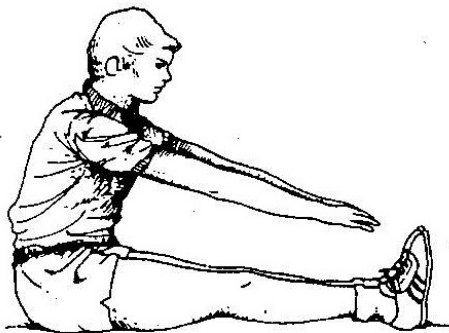
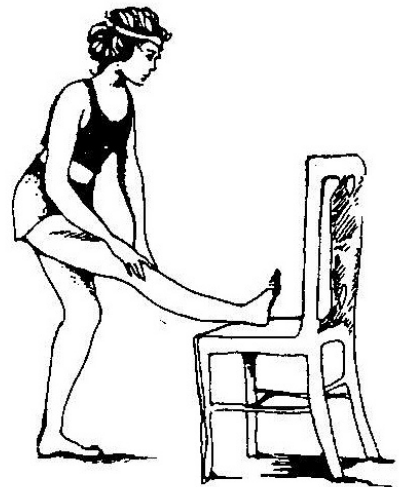
Calf Raises

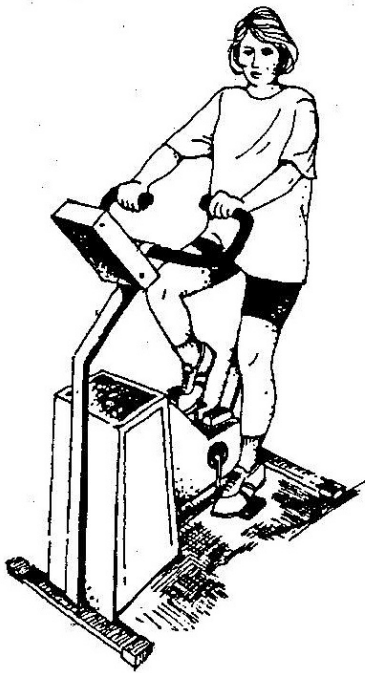
Do as many as are comfortable; start with a few, then gradually work up to your maximum; repeat three times a day.

Hamstring Stretching

Hamstring Stretching

It is important to stretch everyday for 20-30 minutes. Better results are obtained if you stretch before and after you have warmed your muscles (e.g. bicycling). Try not to bounce when you stretch; instead, stretch to your maximum, hold for a count of 10, relax, and then repeat.





Bicycling

Bicycling is an excellent rehabilitative exercise. It provides aerobic training to the quads and hams and it provides low-stress quad strengthening. A stationary bicycle or street bicycle may be used. Place the seat in the highest comfortable position in order to minimize the PF forces. Try to use a bike that is equipped with toe clips or toe cages so that the hamstrings also get a work-out. Cycle 15-45 minutes every day and increase the resistance as you can tolerate it.

