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## **HOME REHABILITATION PROTOCOL AFTER KNEE INJURY**

### **1. Proper Gait**

When walking, try to avoid limping. Concentrate on contacting the ground with your heel, forcing your knee straight and rolling off the ball of your foot and toes.

### **2. Prone Hangs**

This exercise helps to extend (straighten) your leg so that a full range of motion may be obtained. Lie face down on a firm table. Position yourself so that your knees are off the table (i.e. the table ends just above your knee). Allow gravity to extend your legs. You may do this exercise as often as you like for as long as you like as long as it does not cause significant pain. Some discomfort (a stretching sensation) in the back of the knee is normal.

### **3. Stationary Bicycling**

Use of a stationary bicycle can help to regain range of motion and alleviate the sense of stiffness of your knee. If you have access to a stationary bicycle, you should use this one to two times a day for approximately 15-20 minutes. Initially the bicycle seat should be raised up high (so that your knee does not need to flex (bend) much) and you should set the bicycle for very little resistance. Lower the seat as your range of motion improves until your normal level is obtained. Do not use a road bicycle if a stationary bicycle is not available.

### **4. Quadriceps Squeezes (VMO Reeducation)**

This exercise helps to strengthen one of the important thigh muscles (vastus medialis) that weaken after an injury. Lie on your back on a firm surface. Place a pillow under the ankle of the leg that was injured. First, contract the thigh muscles of the leg that was not injured, hold for 5 seconds and release. Then contract the thigh muscles of the leg that was injured. While contracting these muscles, attempt to fully straighten your knee forcing it backwards toward the table. Alternate contractions between your uninjured and injured knee. You may do this exercise as often as you like. You should perform at least 25-50 contractions twice a day with your injured leg.

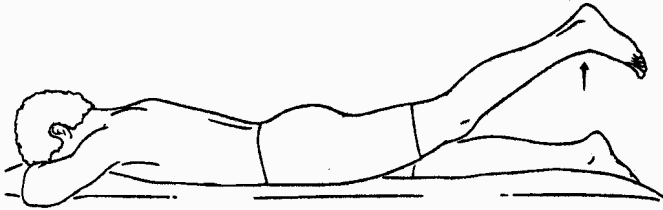
### **5. Quadriceps Strengthening (see attached sheet)**

These exercises are important to regaining your full function and strength after an injury. Follow the instructions on the following sheet. Attempt to perform these exercises once a day, four days a week. If you have been provided a brace and unless otherwise instructed, wear your brace while performing these exercises.

### **6. Concerns**

As always, if you have any questions or concerns, do not hesitate to call me at either phone number listed at the top of these instructions.

HIP / KNEE - 20 Strengthening: Hip Extension (Prone)



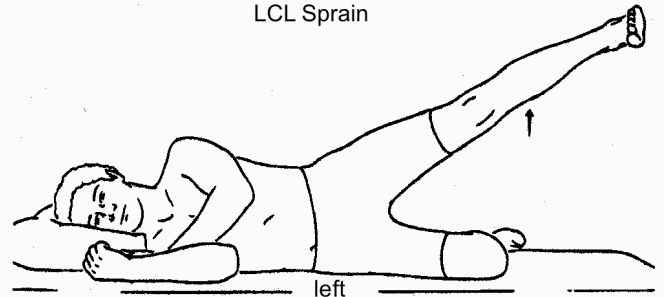
left  
or

Tighten muscles on front of **right** thigh, then lift leg 6 inches from surface, keeping knee locked.

Repeat 10 times per set. Do 3 sets per session.  
Do 1 sessions per day.

HIP / KNEE - 21 Strengthening: Hip Abduction (Side-Lying)

\* Do not perform if you have a LCL Sprain



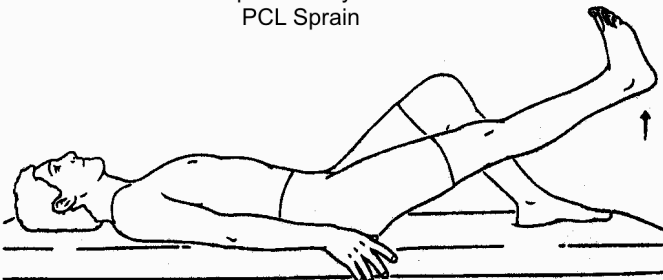
left  
or

Tighten muscles on front of **right** thigh, then lift leg 12 inches from surface, keeping knee locked.

Repeat 10 times per set. Do 3 sets per session.  
Do 1 sessions per day.

HIP / KNEE - 17 Strengthening: Straight Leg Raise (Phase 1)

\* Do not perform if you have a PCL Sprain



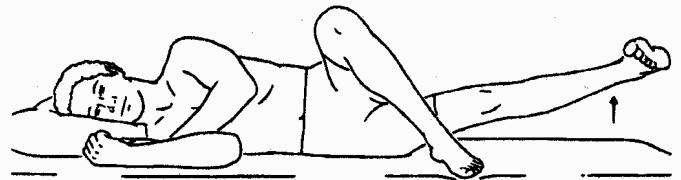
left  
or

Tighten muscles on front of **right** thigh, then lift leg 12 inches from surface, keeping knee locked.

Repeat 10 times per set. Do 3 sets per session.  
Do 1 sessions per day.

HIP / KNEE - 22 Strengthening: Hip Adduction (Side-Lying)

\* Do not perform if you have a MCL Sprain

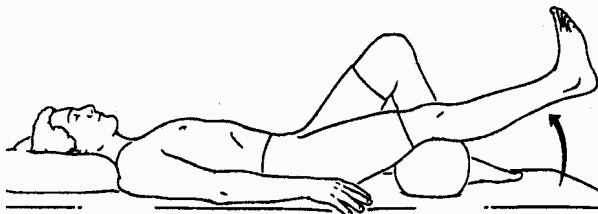


left  
or

Tighten muscles on front of **right** thigh, then lift leg 6 inches from surface, keeping knee locked.

Repeat 10 times per set. Do 3 sets per session.  
Do 1 sessions per day.

HIP / KNEE - 23 Strengthening: Terminal Knee Extension (Supine)



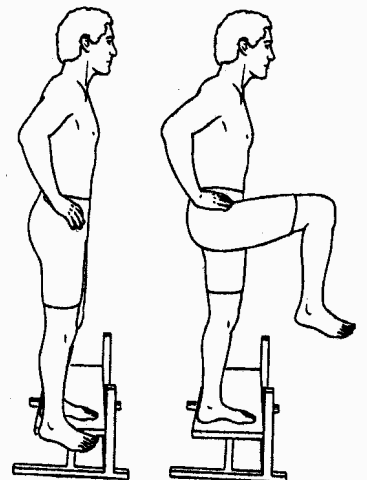
left  
or

With **right** knee over bolster, straighten knee by tightening muscles on top of thigh. Keep bottom of knee on bolster.

Repeat 10 times per set. Do 3 sets per session.  
Do 1 sessions per day.

HIP / KNEE - 60 Hip Flexion (Standing)

left  
or  
With **right** foot on          inch step, raise other hip at right angle, letting knee bend.



Repeat 10 times per set.  
Do 3 sets per session.  
Do 1 sessions per day.