

Exercises for Knee Rehabilitation

General Instructions:

How fast and how well you regain knee motion is directly related to your motivation and perseverance. Strong determination and tolerance for temporary discomfort will hasten your return to normal activities.

Follow the exercise routine prescribed by your doctor. Gradually increase the frequency of the exercises as your knee becomes stronger. Initially you may require assistance, but you should soon be able to perform these exercises and stretching maneuvers on your own.

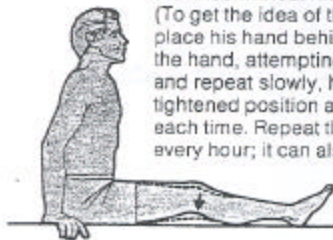
Swimming is a good form of exercise; many of the following exercises can be more effectively performed with the aid of the water's buoyancy.

You may wish to establish the exercise pattern with your good knee; then switch to the injured one.

Additional Instructions:

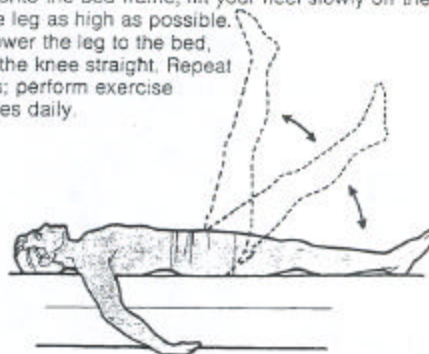
1. Quadriceps Setting.

Sit on a flat surface with legs out straight. Tighten the knee without moving the leg out of position. (To get the idea of this exercise, have someone place his hand behind your knee and push against the hand, attempting to flatten your knee.) Relax and repeat slowly, holding the knee in the tightened position approximately two seconds each time. Repeat this exercise at least 25 times every hour; it can also be performed at odd moments, such as in the auto while waiting for a traffic light, sitting in a chair, etc.



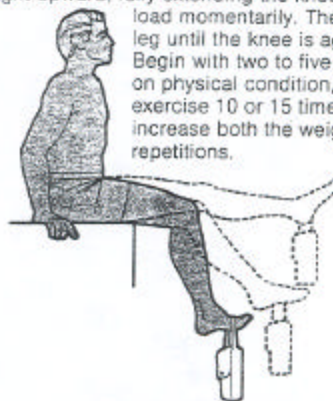
2. Straight Leg raising.

Lie on your back with your legs out straight, knees unbent. Holding onto the bed frame, lift your heel slowly off the bed. Raise the leg as high as possible. Slowly lower the leg to the bed, keeping the knee straight. Repeat ten times; perform exercise three times daily.



3. Progressive Resistance Exercises.

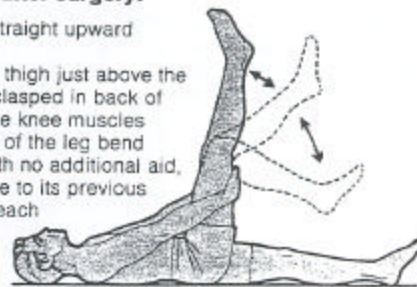
Sit on a high table or bench, with legs dangling. Suspend weights from your ankle, using a small bucket, ladies' handbag, or any pouch with a strap.* Lift the weight upward, fully extending the knee, and hold the load momentarily. Then slowly lower the leg until the knee is again bent 90 degrees. Begin with two to five pounds, depending on physical condition, and repeat the exercise 10 or 15 times. Progressively increase both the weight and number of repetitions.



4. Knee Flexion Exercises.

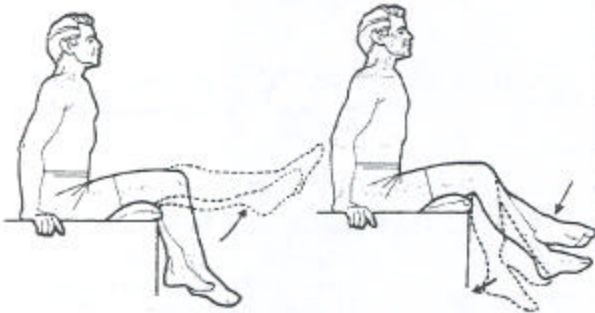
a. Immediately after surgery:

1. Raise the leg straight upward as in Exercise #2. Support the lower thigh just above the knee with hands clasped in back of the knee. Relax the knee muscles and let the weight of the leg bend the knee; then, with no additional aid, straighten the knee to its previous position. Repeat, each time permitting the leg to bend further.



* Plastic water bags are also available for home use. Metal shoes with weight attachments may be purchased in a sporting goods store, or students may borrow them from the athletic departments of high schools or colleges.

2. Sit on side of bed with pillow under knees and legs dangling. Straighten injured leg, using foot of good leg for support if necessary; let it drop by gravity, then force it to bend, using other foot to exert pressure on top of the ankle to limits of pain tolerance; repeat.



b. Restoration of knee movement in convalescent period:



1. Sit on high table, let leg dangle with minimal or no support, and tighten hamstring muscles. Use opposite foot to gradually bend the injured leg by exerting pressure on top of the ankle.

2. Stand on both feet, hold onto table with both hands, and stoop, forcing knees to bend. Try to bend deeper with each squat.

3. Perform bicycle-type exercises, lying on back with feet extended into the air. Or, use a bicycle apparatus (or a regular bicycle placed on jacks), with seat first placed in highest position, then lowered as knee motion improves.



4. Lie prone and bend knee by lifting foot from table; you may force the knee to bend by pulling on a strap looped over your foot.

