RANGE OF MOTION

Heel Prop/Quad Isometric

While lying flat on a table with knee straight, place heel on a rolled towel. Heel must be high enough so that thigh and calf are off the ground. Tighten the quadriceps muscles on the front of your thigh by pressing your knee down into the bed. Hold the contraction for 10 seconds before releasing pressure. Do this exercise as often as possible, up to 100 times a day.

Heel Slides

While lying flat on the table with knee straight, slowly slide heel towards your buttock, gently bending the knee.

Gravity Assisted

Sit at the edge of the table/bed with a pillow under the injured knee. Straighten the injured leg, using the foot of the good leg for support, let it drop by gravity, then force it to bend using other foot to exert pressure on top of the ankle to limit range of pain tolerance.
Imaginary Bicycling

While lying on your back with your feet extended into the air, imitate the movement as if you were on a bike and peddling.

Stationary Bicycling

Place the seat in the highest position and begin with lowest level of tension. Attempt comfortable full revolutions for approximately 20 minutes at a time. If able to cycle comfortably, may lower the seat to increase knee flexion with each revolution. Once seat height allows for 110 degrees of knee flexion, may slowly increase tension to your pain tolerance.

KNEE STRETCHING

Supine Knee Bends

While lying down on a table, flex your knee as far as you can. Using your hands, hold the leg, gradually bend the knee with your hands giving assistance. This should be done slowly, gradually increasing knee flexion by a steady pull.

Knee Bends Against A Chair

While standing, prop the foot of the affected leg onto the seat of a chair. Gradually lean forward so that the affected knee moves in front of the foot and ankle. Avoid any bouncing or sudden movements. Hold knee in maximal flexion for 5 seconds. Repeat.

Hamstring Stretching

While lying down or standing, slowly reach both hands towards your toes while keeping the knees extended. Hold for 10 seconds, relax and repeat.
KNEE STRENGTHENING

Straight Leg Raises
While lying flat on a table with the injured knee straight, tighten quadriceps muscles firmly. Slowly lift injured leg one foot off of the table and hold for 3 seconds before gently returning to resting position. Repeat 3 sets of 10 repetitions 3 times a day. When you are able to lift the last set of 10 repetitions with ease, you may begin to add ankle weights. Increase the weight in 3 to 5 pound increments as tolerated. Make sure you can comfortably perform all repetitions two days in a row before increasing the weight.

Sit To Stand
Sit in the chair of your choice. Slide forward as far as possible. Move your feet back so your heels are lined up with the front edge of the chair. Use your butt and legs to stand up. Lightly use your hands on the chair if necessary. Repeat 3 sets of 10 repetitions 3 times a day.

Wall Slides/Sits
While doing this knee exercise, wear sturdy shoes that provide good support for your feet. Make sure you are standing on carpet or a non-slippery surface. Stand with your back against a wall, and your feet straight in front of you. Slide down, keeping your back against the wall, until you are in a slight sitting position. Slide down only as far as you feel comfortable; when you get stronger you will be able to slide into more of a sitting position. Starting from a standing position, repeat 3 sets of 10 repetitions 3 times a day.

Leg Press
Sit on the machine with your back against the padded support. Place your feet on the foot plate about shoulder width apart, making sure the heels are flat. The legs should form an angle of about 90 degrees at the knee. The knees should be in line with the feet and neither bowed inward nor outward. Straighten the knees, but do not lock them, then slowly bend knees to 90 degrees. Repeat 3 sets of 10 repetitions 3 times a day.
Hamstring Curls Standing/Prone

Done on a machine at the gym. Position your body so that while on your stomach, your knees fall just below the edge of the pad. This should position your knees so the center of the point where the machine rotates lines up with the center of your knees. Adjust the ankle pads so they rest just above your heels. Begin to slowly curl your heels toward your buttocks. Keep your abdominals contracted and your pelvis pressed firmly into the machine. Slowly release to the starting position, being careful not to hyperextend your knees. Perform 8 to 15 repetitions.

**CORE STRENGTHENING**

**Bridging**

While lying on your back, bend both knees with your feet flat and shoulder width apart. Keeping your feet in place, tighten and raise your buttocks off the ground. Hold for 5 seconds. Return to original position. Repeat 3 sets of 10 repetitions 3 times a day.

**Hip Flexion**

While standing with the theraband around the ankle of the injured leg, bend the hip and knee. Hold for 3-5 seconds. Return to original position. Repeat 3 sets of 10 repetitions 3 times a day.
**Hip Abduction**

While standing with the theraband around the ankle of the injured leg, bend the hip away from the opposite leg while keeping the knee straight. Hold for 3-5 seconds. Return to original position. Repeat 3 sets of 10 repetitions 3 times a day.

**Hip Adduction**

While standing with the theraband around the ankle of the injured leg, bend the hip towards the opposite leg while keeping the knee straight. Hold for 3-5 seconds. Return to original position. Repeat 3 sets of 10 repetitions 3 times a day.

**Hip Extension**

While standing with the theraband around the ankle of the injured leg, extend the hip while keeping the knee straight. Hold for 3-5 seconds. Return to original position. Repeat 3 sets of 10 repetitions 3 times a day.

**Hamstring Curls**

While standing with the theraband around the ankle of the injured leg, bend the knee as the hip remains straight. Hold for 3-5 seconds. Return to original position. Repeat 3 sets of 10 repetitions 3 times a day.