



## Core and Low Back Strengthening Home Exercise Program

Clayton W. Nuelle, MD

### STRETCHING

#### Low Back Rotation

While lying on your back with both of your knees bent. Rotate your head to one side. Then gently drop both knees to the opposite side. Hold for 5 seconds. Return to the original position. Repeat to the opposite side. Repeat 3 sets of 10 repetitions 3 times a day to both sides.



#### Double Leg Pull

While lying on your back with both of your knees bent. Gently pull both knees to your chest. Hold for 5 seconds. Return to the original position. Repeat 3 sets of 10 repetitions 3 times a day.



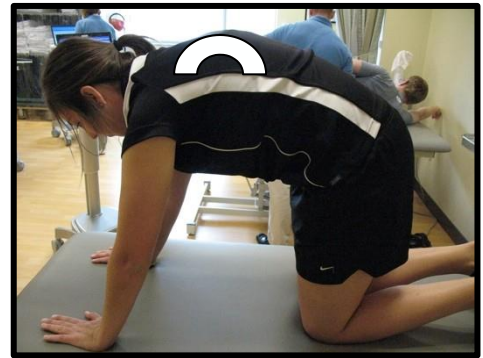
#### Single Leg Pull

While lying on your back with both of your knees bent. Gently pull one knee to your chest while the other leg and back are on the table. Hold for 5 seconds. Return to the original position. Switch legs. Repeat 3 sets of 10 repetitions 3 times a day on both sides.



## Back Press

While on your hands and knees. Be aware of good posture with your knees under your hips and your hands under your shoulders. Gently press your back upward by tightening your abdomen and buttocks. Allow your head to drop slightly. Hold for 5 seconds. Repeat 3 sets of 10 repetitions 3 times a day on both sides.



## Back Release

While on your hands and knees. Be aware of good posture with your knees under your hips and your hands under your shoulders. Gently allow your back “sag” by relaxing your abdomen and buttocks. Hold for 5 seconds. Repeat 3 sets of 10 repetitions 3 times a day on both sides.



## 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

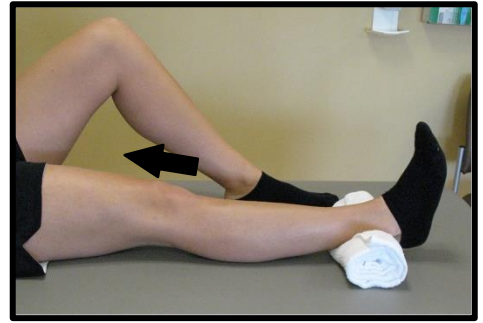
While lying down or standing, slowly reach both hands towards your toes while keeping the knees extended. Hold for 10 seconds, relax and repeat.



## STRENGTHENING

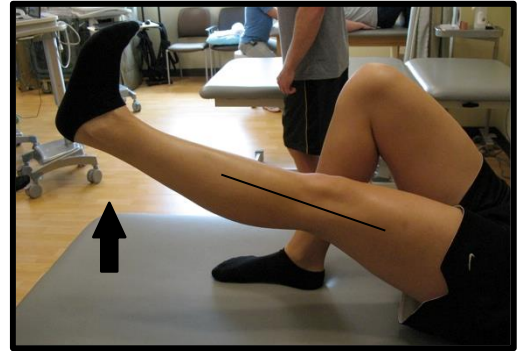
### Heel Prop/Quad Isometric

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.



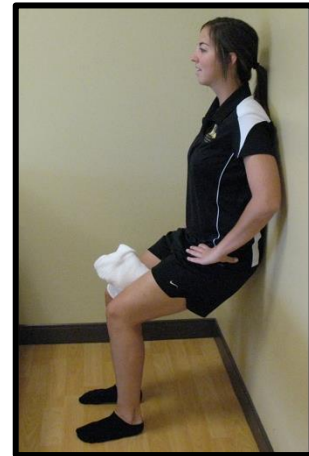
### Straight Leg Raises

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.



### 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.



### Sit To Stand

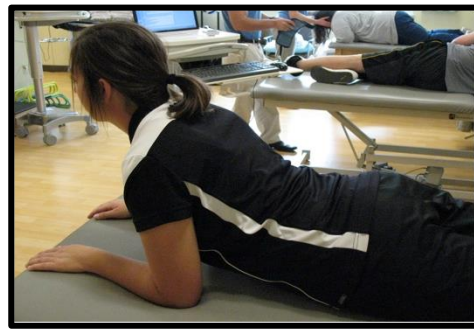
Sit in the chair of your choice. Slide forward as far as possible. Move your feet back so your heels are lined up with the front edge of the chair. Use your butt and legs to stand up. Lightly use your hands on the chair if necessary. Repeat 3 sets of 10 repetitions 3 times a day.





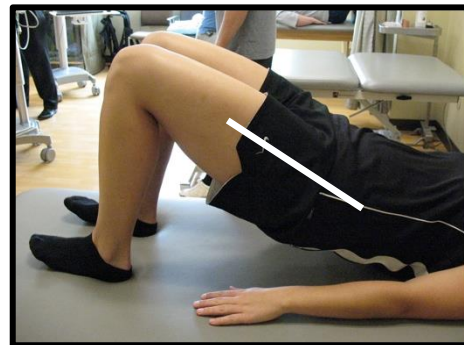
## Elbow Press

While lying face down, legs straight and feet slightly apart. Keep your legs and abdomen against the table. Press yourself up on your forearms. Hold for 5 seconds. Return to original position. Repeat 3 sets of 10 repetitions 3 times a day.



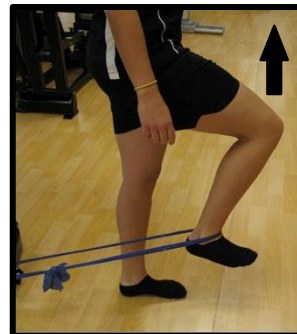
## Bridging

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.



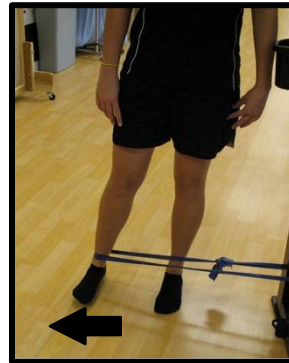
## Hip Flexion

While standing with the theraband around the ankle of the injured leg, bend 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.



## 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.

