



# Lower Extremity Rehabilitation Program

Kenneth A. Jurist, M.D.

Joseph H. Guettler, M.D.

Kenneth Soave, Director of Physical  
Therapy Services

## Lower Extremity Strengthening:

### Quad sets:

While sitting, extend your leg straight in front of you. Tighten your quad (thigh) muscles until you see it contract. Hold the contraction for a few seconds, then release. Repeat this exercise several times.

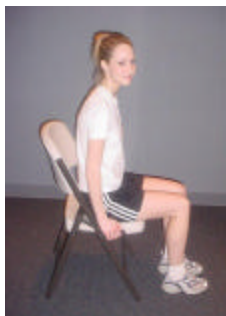


Start position

End position

### Long Arc Quads:

While sitting in a chair, extend your affected leg straight in front of you, then hold it up for a few seconds and slowly lower. For added resistance, you can secure a cuff weight to your ankle. Repeat this exercise several times.



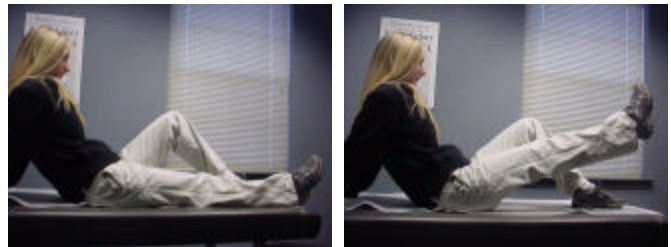
Start position



End position

### Straight Leg Raise:

While sitting with your leg straight in front of you, raise your leg straight into the air. Hold it up for a few seconds, then slowly lower it back down. Repeat this exercise several times.



Start position

End position

### Short Arc Quads:

While lying down, position a bolster, or a few pillows under your knee. Proceed to straighten your leg, then hold it up for a few seconds and slowly lower it back down. For added resistance, you can secure a cuff weight to your ankle. Repeat this exercise several times.



Start position



End position

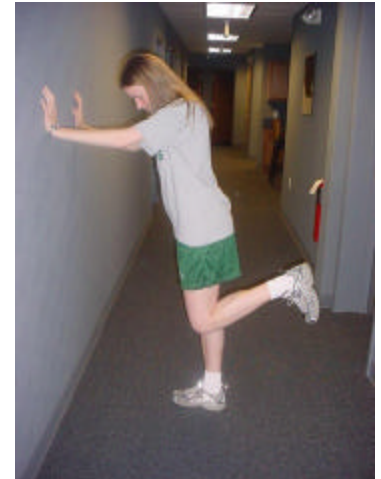
## Lower Extremity Rehabilitation Continued

### Hamstring Curls:

While standing, lean over a table or counter to brace yourself, then bend your knee and lift your foot off of the floor while contracting the hamstring muscles. For added resistance, you can secure a cuff weight to your ankle. Repeat this exercise several times.



Start position



End position



Start position



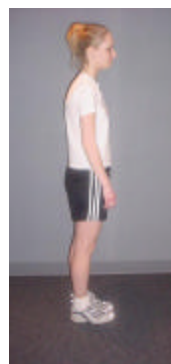
End position

### Mini Squats:

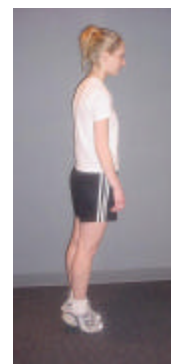
While standing on your affected leg only, slowly bend your knee making sure to keep your knee lined up over your second toe. Bend your knee far enough so that your knee is over your toes, but do not go past your toes. Repeat this exercise several times.

### Toe Raises:

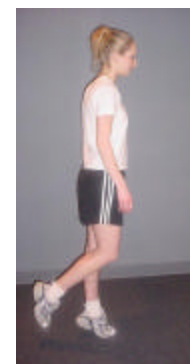
Begin standing on both feet and slowly raise up onto your toes. Once this becomes easy (after a few days), progress to raising up on 2 feet and lowering down with your affected leg only. Once that exercise becomes easy (after a few more days), progress to raising up and down on only the affected leg. Repeat this exercise several times.



Start position



End position



Advanced

## Lower Extremity Rehabilitation Continued

### Theraband Exercises:

#### Hip Flexion:

Begin by wrapping the theraband around a table leg and wrap the other end around your ankle. Turn your body so that you are facing away from the table leg where the theraband is tied. Proceed to kick your leg straight forward making sure to keep your leg straight. Do 3 sets of 10 repetitions several times per day.



Start Position



End Position



Start Position



End Position

#### Hip Extension:

With the theraband still in place, turn your body so that you are facing the table leg where the theraband is tied. Proceed to kick your leg straight behind you, making sure to keep your leg straight. Do 3 sets of 10 repetitions several times per day.

#### Hip Abduction:

With the theraband still in place, turn your body so that your affected side is furthest from the table leg where the theraband is tied. Proceed to kick your leg straight out to the side, making sure to keep your leg straight. Do 3 sets of 10 repetitions several times per day.



Start Position



End Position

## Lower Extremity Rehabilitation Continued

### Hip Adduction:

With the theraband still in place, turn your body so that your affected side is closest to the table leg where the theraband is tied. Proceed to kick your leg straight across your body, making sure to keep your leg straight. Do 3 sets of 10 repetitions several times per day.



Start position



End position

### Hip External Rotation:

With the theraband still in place, sit in a chair with your body positioned so that you affected leg is furthest from the table leg where your theraband is tied. Keeping your knee bent, slowly rotate your ankle up and out while keeping your knee in the same position. Do 3 sets of 10 repetitions several times per day.



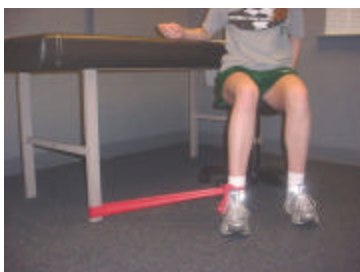
Start position



End position

### Hip Internal Rotation:

With the theraband still in place, sit in a chair with your body positioned so that you affected leg is closest to the table leg where your theraband is tied. Keeping your knee bent, slowly rotate your ankle up and in while keeping your knee in the same position. Do 3 sets of 10 repetitions several times per day.



Start position



End position

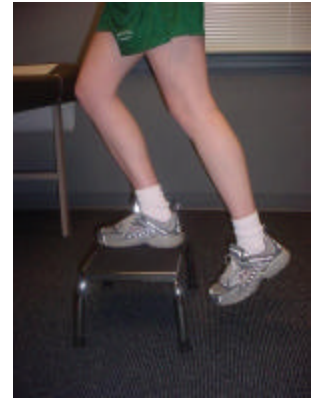
## Lower Extremity Rehabilitation Continued

### Step ups:

Using a step stool, step onto the stool with your affected leg first, then your unaffected leg. Then step down with your unaffected leg first, followed back your affected leg. Repeat this exercise several times.



Start position



End position



Start position



End position

### Hip abduction:

While lying on your unaffected side, slowly lift your affected leg straight up into the air, making sure to keep your leg straight. Do 3 sets of 10 repetitions and repeat a few times per day.

### Hip adduction:

While lying on your affected side and the foot of your unaffected leg placed in front of your affected knee, slowly lift your affected leg straight up into the air, making sure to keep your leg straight. Do 3 sets of 10 repetitions and repeat a few times per day.



Start position



End position