

HANNAH H. CHO, MD  
 RICHARD E. SEROUSSI, MD  
 BENJAMIN D. SNYDER, MD  
 JOSEPH L. WILMHOF, ARNP



## SEATTLE SPINE & SPORTS MEDICINE

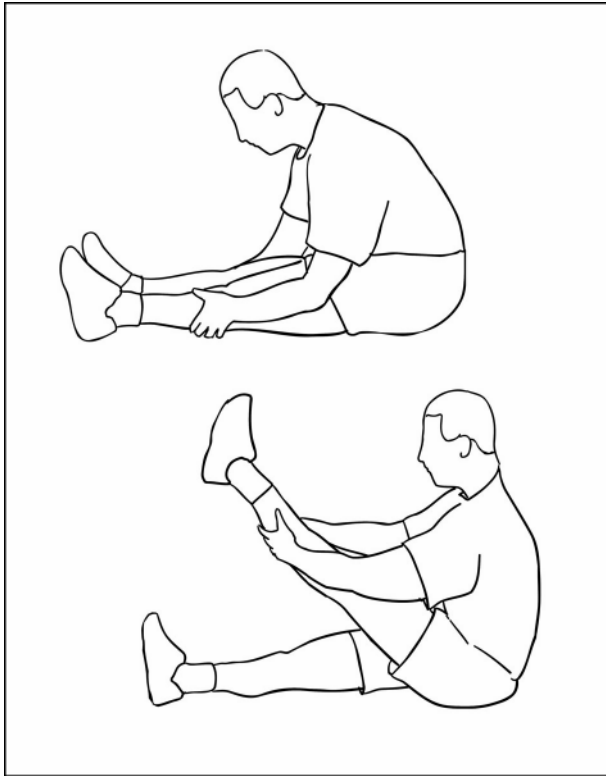
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# HOME EXERCISE PROGRAM FOR KNEE CONDITIONING

Stretching and Strengthening Exercises for the Knee

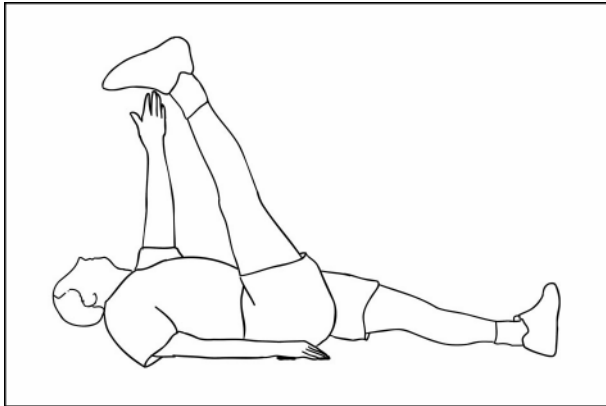
Exercise	Muscle Group	Number of Repetitions/Sets	Number of Days per Week	Number of Weeks
<b>Stretching</b>				
Leg stretch	Hamstrings	3 to 6 repetitions/3 sets	Daily	6 to 8
Leg cross-over	Hamstrings	3 to 6 repetitions/3 sets	Daily	6 to 8
Cross-over stand	Hamstrings	3 to 6 repetitions/3 sets	Daily	6 to 8
Straight-leg raise	Quadriceps	Work up to 3 sets of 10 repetitions	Daily	6 to 8
Straight-leg raise (prone)	Gluteus maximus	Work up to 3 sets of 10 repetitions	Daily	6 to 8
Wall slide	Quadriceps Hamstrings	Work up to 3 sets of 10 repetitions	Daily	6 to 8
<b>Strengthening</b>				
Forward lunge	Quadriceps	Work up to 3 sets of 10 repetitions	3	6 to 8
Hamstring curl	Hamstrings	10 repetitions/5 sets/3 times a day	3	6 to 8
Side-lying hip abduction	Gluteus medius	6 to 8 repetitions, progressing to 12 repetitions	3	6to8
Hip extension	Gluteus maximus	6 to 8 repetitions, progressing to 12 repetitions	3	6to8

## STRETCHING EXERCISES



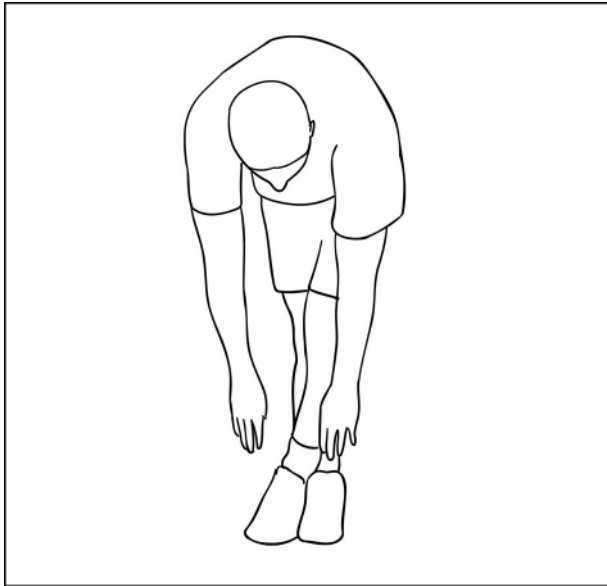
### LEG STRETCH

Sit on the floor with your legs straight in front of you and place your hands on the backs of your calves. Slowly lift and pull one leg toward your ear, keeping your back straight. Hold the stretch for 5 seconds. Alternate from side to side. Repeat each leg 3 to 6 times. For comfort, you may slightly bend the leg not being stretched.



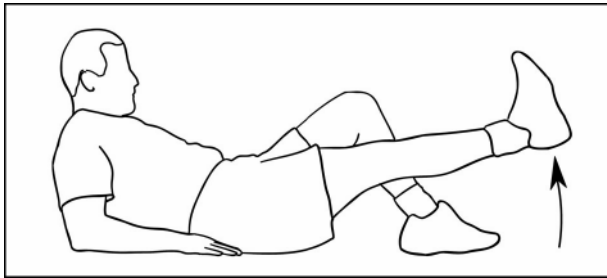
### LEG CROSS-OVER

Lie on the floor with your legs spread and your arms out to the sides. Bring your right toe to your left hand, keeping the leg straight. Hold the stretch for 5 seconds. Alternate from side to side. Repeat each leg 3 to 6 times. For comfort, you may slightly bend the leg not being stretched.



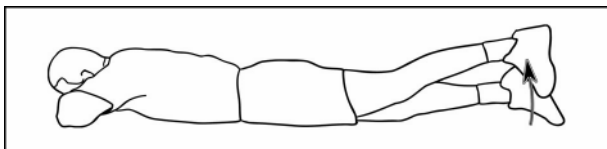
## CROSS-OVER STAND

Stand with your legs crossed. Keeping your feet close together and your legs straight, slowly bend forward toward your toes. Hold the stretch for 5 seconds. Repeat with the opposite leg crossed in front.



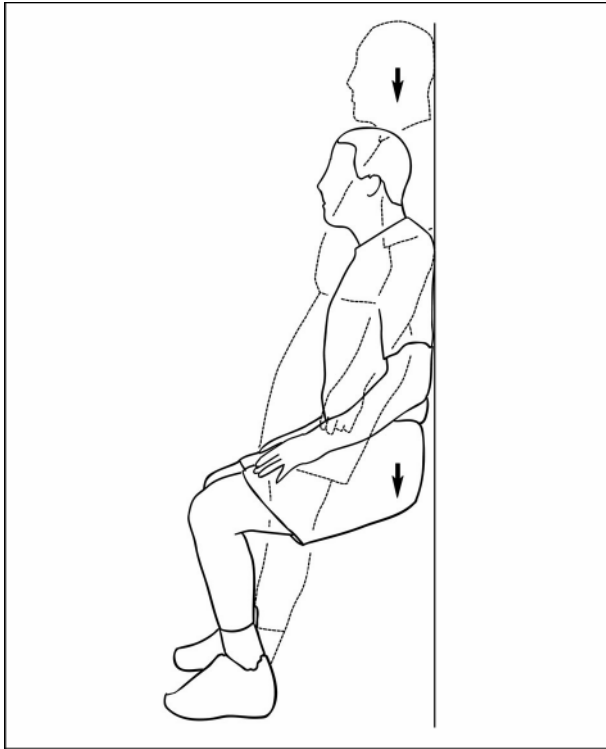
## STRAIGHT-LEG RAISE

Lie on the floor with one leg straight and the other leg bent. Tighten the thigh muscle of the straight leg and slowly raise it 6 to 10 inches off the floor. Hold this position for 5 seconds. Repeat with the opposite leg. Work up to 3 sets of 10.



## STRAIGHT-LEG RAISE (PRONE)

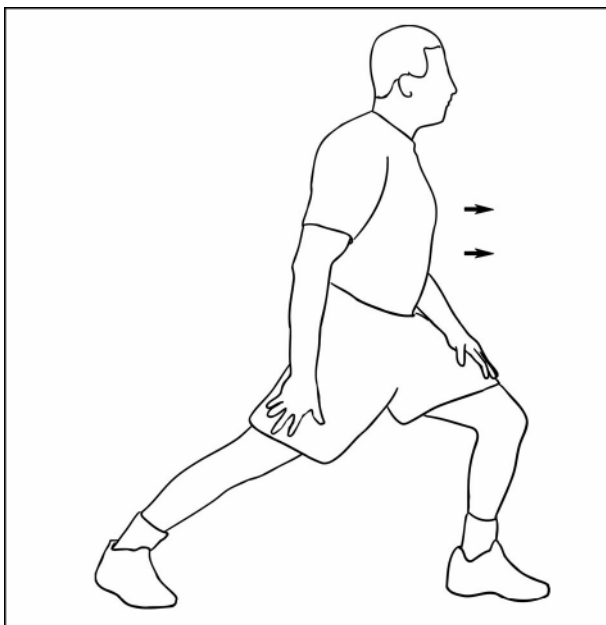
Lie on the floor on your stomach with your legs straight. Keeping the leg straight, tighten the hamstrings of one leg and raise the leg as high as you can. Hold this position for 5 seconds. Repeat with the opposite leg. Work up to 3 sets of 10.



## WALL SLIDES

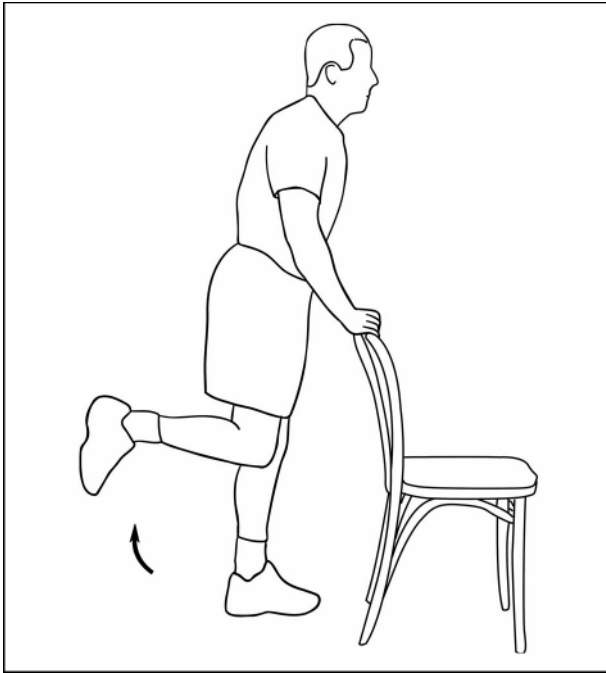
Stand with your back against a wall and your feet about 1 foot from the wall. Tuck your pelvis under so that your lower back is flat against the wall. Stop when your knees are bent 90°. Hold for 5 seconds and then relax. Work up to 3 sets of 10.

## STRENGTHENING EXERCISES



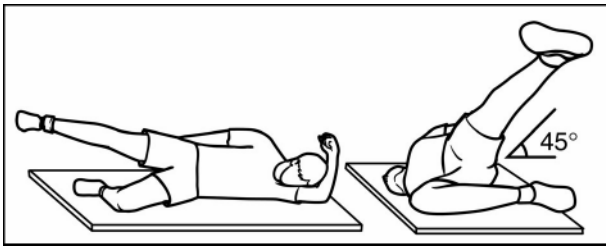
## FORWARD LUNGES

Stand up with the feet about 3 to 4 feet apart and with the forward foot pointing forward and the back foot angled to provide support. Lunge forward, bending the forward knee and keeping the back and the back leg straight. You should feel a slight stretch in the left groin area. Hold the stretch for 5 seconds. Repeat with the opposite leg.



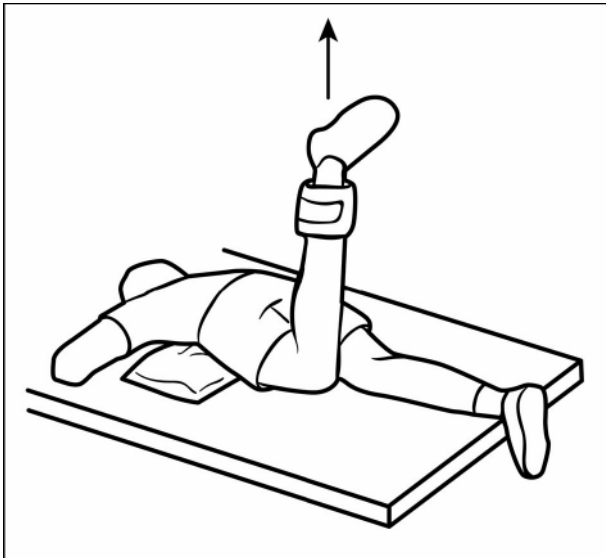
## HAMSTRING CURLS

Stand on a flat surface with your weight evenly distributed over both feet. Hold onto the back of a chair or the wall for balance. Raise the heel of one leg toward the ceiling. Hold this position for 5 seconds and then relax. Perform 5 sets of 10, 3 times a day.



## SIDE-LYING HIP ABDUCTION

Lie on your side with the affected hip on top, cradling your head in your arm, and the bottom leg bent to provide support. Slowly move the top leg up and back to 45°, keeping the knee straight. Hold this position for 5 seconds. Slowly lower the leg and relax it for 2 seconds. Ankle weights should be used, starting with light enough weight to allow 6 to 8 repetitions, progressing to 12 repetitions. Then return to 6 to 8 repetitions and add weight.



## HIP EXTENSION

Lie face down with a pillow under your hips and the knee on the affected side bent 90°. Elevate the leg off the floor to a count of 5, lifting the leg straight up with the knee bent. Ankle weights should be used, starting with light enough weight to allow 6 to 8 repetitions, working up to 12 repetitions. Then return to 6 to 8 repetitions and add weight.