

Prepared for: \_\_\_\_\_

Prepared by: \_\_\_\_\_

## Home Exercise Program for Knee Conditioning

- Before beginning the conditioning program, warm up the muscles by riding a stationary bicycle or jogging for 10 minutes.
- After the active warm-up and the strengthening exercises, stretching exercises should be performed to maintaining or increase flexibility. When performing the stretching exercises, you should stretch slowly to the limit of motion, taking care to avoid pain.
- If you experience pain with exercising, call your doctor.

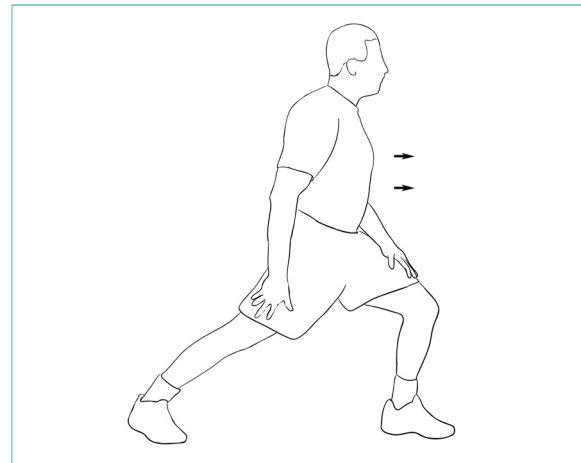
### Strengthening and Stretching Exercises for the Knee

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

## 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. Do not let the forward lunging knee pass beyond the toes.
- Hold the stretch for 5 seconds.
- Repeat with the opposite leg.
- Work up to 3 sets of 10 repetitions, 3 days per week.



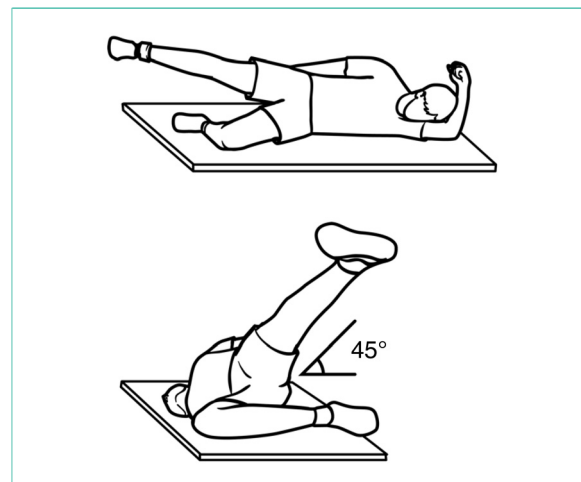
### *Hamstring Curls*

- 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 repetitions, 3 times per day.



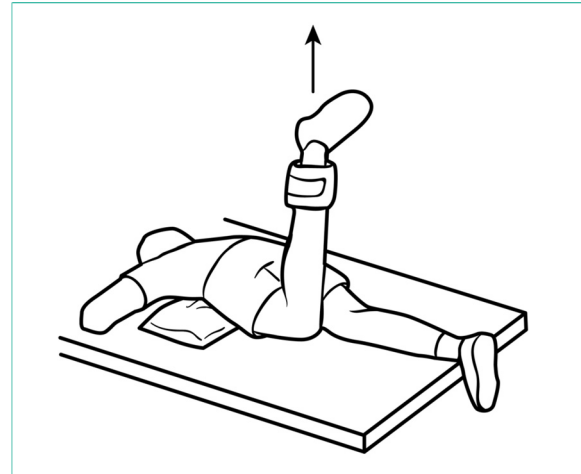
### *Side-Lying Hip Abduction*

- Lie on your side, cradling your head in your arm. Bend the bottom leg for 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.
- Repeat on the opposite leg.
- Perform the exercise 3 times per week.



### *Hip Extension (Prone)*

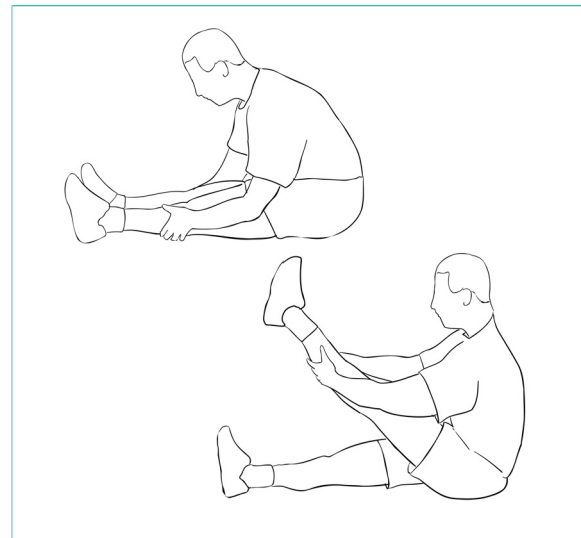
- Lie face down with a pillow under your hips and one knee bent 90°.
- Elevate the leg off the floor to a count of 5, lifting the leg straight up with the knee bent.
- Ankle weights should be used, starting with light enough weight to allow 6 to 8 repetitions, working up to 12 repetitions. Then return to 6 to 8 repetitions and add weight.
- Repeat on the opposite leg.
- Perform the exercise 3 times per week.



## **Stretching Exercises**

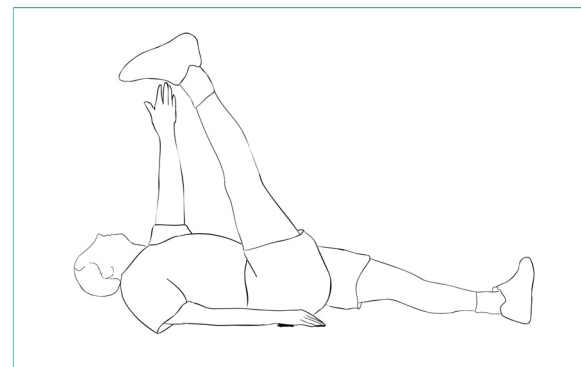
### *Leg Stretch*

- Sit on the floor with your legs straight in front of you and place your hands on the backs of your calves. For comfort, you may slightly bend the leg not being stretched.
- 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 the exercise with each leg 3 to 6 times.
- Perform the exercise daily.



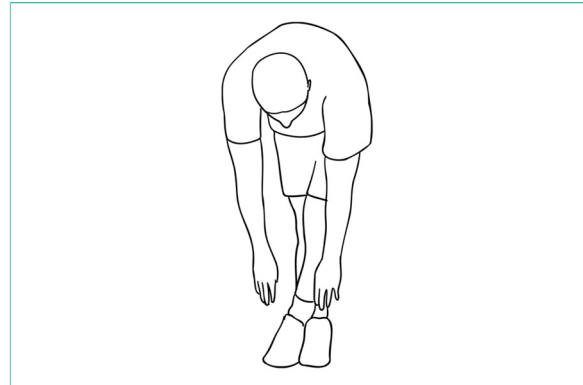
### *Leg Crossover*

- 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 the exercise with each leg 3 to 6 times. For comfort, you may slightly bend the leg not being stretched.
- Perform the exercise daily.



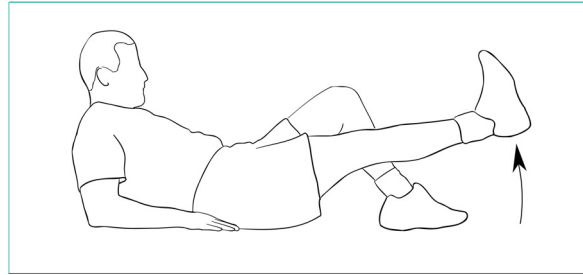
### *Crossover Stand*

- 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.
- Perform 3 sets of 3 to 6 repetitions daily



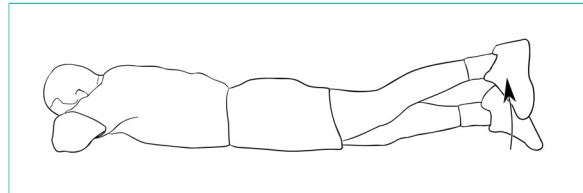
### *Straight-Leg Raise*

- 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 repetitions.
- Perform the exercise daily.



### *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 repetitions.
- Perform the exercise daily.



### *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°. The knees should not pass beyond the toes.
- Hold for 5 seconds and then relax. Work up to 3 sets of 10 repetitions.
- Perform the exercise daily.

