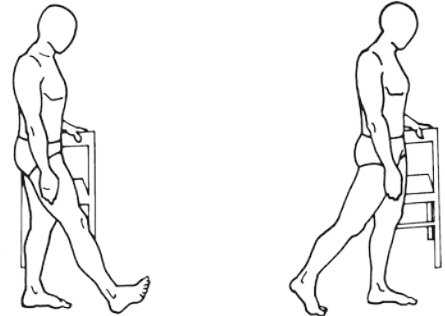


## Lower Extremity Strengthening Home Exercise Program Closed Chain, Standing

### 1. Quadricep Set (quadriceps are the front thigh muscles):

#### Standing

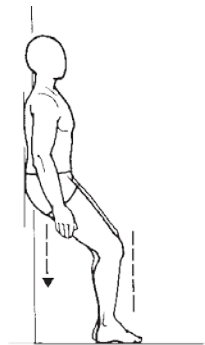
1. Heel strike — leg forward, ankle bent, heel contact, tighten quad
  2. Midstance — with slight bend in knee and foot flat on the floor, tighten quad
  3. Heel off – leg behind, heel off floor, toes in contact with floor, tighten quad
- Hold \_\_\_\_\_ seconds.  
Repeat \_\_\_\_\_ times.



### 2. Wall Squat

With feet shoulder-width apart, knees aligned over ankles and back to wall, tighten buttocks and quads, attempting to tighten VMO first, then slide down wall until knees are bent to \_\_\_\_\_ degrees. Hold \_\_\_\_\_ seconds. Repeat \_\_\_\_\_ times. Progress to bending knees to \_\_\_\_\_ degrees.

**Variation:** Squeeze ball or towel roll between knees, then perform wall sit.



### 3. Single Leg

Standing on involved leg with back to wall, slide down wall until knee is at \_\_\_\_\_ degrees, keeping the knee over the ankle. Hold \_\_\_\_\_ seconds. Repeat \_\_\_\_\_ times. Progress to bending knee to \_\_\_\_\_ degrees.



*Continued*

#### 4. Double Leg Squat

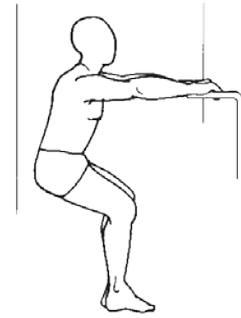
Stand with feet shoulder-width apart, using hand support as necessary. Align knees over ankles, tighten buttocks, tighten quads, attempting to tighten VMO first.

Bend knees to approx. \_\_\_\_\_ degrees. Do not allow knees to go forward past toes. Keep your back straight, bending forward at the hips.

Hold for 5 to 10 seconds. Return to standing.

Repeat \_\_\_\_\_ times.

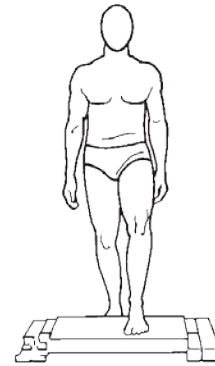
**Variation:** Squeeze ball or towel roll between knees, then perform squat. Progress to single leg when ready as above.



#### 5. Forward Step-up

Holding on to rail, place foot onto step. Slowly step up onto the step, keeping the knee over the ankle, tightening the buttocks and quads. Lower yourself slowly off the step the same way, beginning with a \_\_\_\_\_ inch step.

Repeat \_\_\_\_\_ reps \_\_\_\_\_ sets \_\_\_\_\_ times/day.



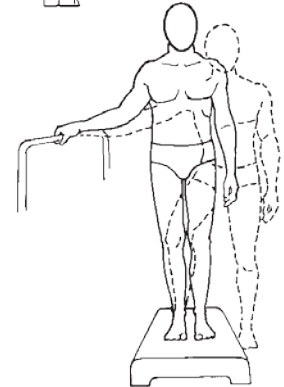
#### 6. Side Step-up

Holding onto rail, step up slowly sideways with one foot and then the other, tightening buttocks and quads.

Step off other side in the same way.

Begin with a \_\_\_\_\_ inch step.

Repeat \_\_\_\_\_ reps \_\_\_\_\_ sets \_\_\_\_\_ times/day.



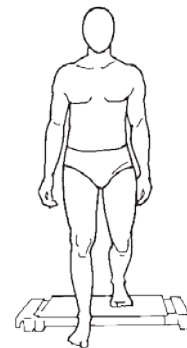
#### 7. Retro Step-up

Step backward with one foot, tightening buttocks and quads, then step with opposite foot.

Step off forward in the same way.

Begin with a \_\_\_\_\_ inch step.

Repeat \_\_\_\_\_ reps \_\_\_\_\_ sets \_\_\_\_\_ times/day.



#### 8. Step Over / Step Down

Start with involved leg on step (hand support as needed), step over/down with uninvolved leg, touching heel to ground.

Do not transfer your weight to the downward foot. Return to start.

Begin with a \_\_\_\_\_ inch step.

Repeat \_\_\_\_\_ reps, \_\_\_\_\_ sets, \_\_\_\_\_ times/day.



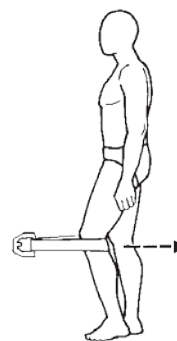
## 9. Gluteus Medius Strength: Wall Push

Bend uninjured knee up and press against wall, keeping pelvis and lower back neutral. Bend injured knee slightly and squeeze buttocks. Repeat \_\_\_\_\_ reps, \_\_\_\_\_ sets.



## 10. Terminal Knee Extension with Tubing

With tubing behind/above/below involved knee, bend knee to 30 degrees, keeping the heel in contact with the floor. Tighten thigh muscles to straighten knee. Repeat \_\_\_\_\_ reps \_\_\_\_\_ sets. Progress to single leg stance.



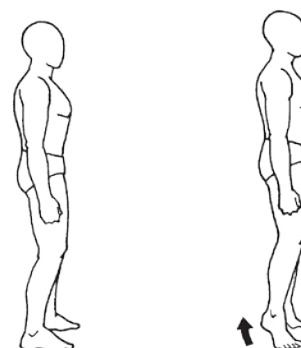
## 11. Lunge

From standing position (hand support as needed), keep the forward knee over the ankle while allowing the “back” knee to bend, lunge forward. Return. Alternate legs. Repeat \_\_\_\_\_ times.



## 12. Toe Raises

Stand with both feet on the floor and knees slightly bent. Raise up on both toes, then slowly lower to feet flat position. Repeat \_\_\_\_\_ reps \_\_\_\_\_ sets \_\_\_\_\_ times/day. Progress to one foot.



## 13. Tubing Walking

Wrap a piece of elastic tubing around your ankles. Stand with your chest out, hips back and down, and knees bent. Sidestep keeping this posture. Keep some tension on the tubing when bringing your feet together. Keep your feet straight ahead. Perform \_\_\_\_\_ steps in each direction for \_\_\_\_\_ sets. Perform \_\_\_\_\_ times daily.

