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.

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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 uninvolved knee up and press against wall, keeping pelvis and lower back neutral. Bend involved 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.

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