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## 1. Towel Roll under the Heel

**Purpose:** To maintain and improve your knee extension range of motion.

## Perform this exercise if you are having trouble getting your knee straight

Lie on your back with your non-operated leg bent.

Place a rolled up towel (approximately 4 - 6 inches in diameter) under the heel of your operated leg (Figure 1a).

Let your operated leg straighten as much as possible.

Try to maintain this position for 3 - 5 minutes.

Ice can also be applied during this exercise (Figure 1b).





Figure 1a

Figure 1b

## 2. Isometric Quadriceps Strengthening (Quad Sets)

**Purpose:** To strengthen the quadriceps muscle.

Lie on your back with your non-operated knee bent.

Place a small towel roll underneath your operated knee (Figure 2).

Slowly tighten your thigh muscle (quadriceps) and push the back of your operated knee down into the towel roll.

Hold this contraction for 10 seconds then slowly release.

Rest for 10 seconds between each contraction.

Perform \_\_3\_\_ sets of \_\_10\_\_ repetitions, \_\_3\_\_ times daily.



## 3. Straight Leg Raise

Figure 2

**Purpose:** To strengthen the quadriceps muscles.

Note: A towel roll is placed underneath the knee for this exercise only.

Note: Do not hold your breath with any of these exercises.



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Lie on your back with your operated knee straight.

Bend your non-operated knee as shown. Gently tighten your stomach muscles Gently tighten your thigh muscle (quadriceps) and slowly raise your operated leg to the level of the opposite knee (**Figure 3**).

Your leg should remain straight throughout this exercise.

Perform \_\_3\_\_ sets of \_\_\_10\_ repetitions, \_\_3\_ times daily.

**Note:** If you have pain/discomfort with this exercise, stop and then try again each day until you can perform this exercise correctly and pain free.



Figure 3

4. Seated Active Assisted Range of Motion Exercises
Knee Flexion and Knee Extension (Do not preform if you had knee ligament reconstruction)

**Purpose:** To help improve motion and strengthen your knee.

Sit at the edge of the bed or a firm surface.

Support your operated leg with your non-operated leg.

Gently allow your operated leg to bend by supporting it and gently lowering it with assistance of the non-operated leg. (Figure 4a)

Slowly remove your non-operated leg from behind your operated leg and let your operated leg dangle as tolerated.

Now, actively bend your operated leg until you feel a stretch (**NO PAIN**) and hold for \_\_10\_\_ seconds. (**Figure 4b**)

Now take your non-operated leg and place it in front of your operated leg.

Bend your operated leg with the assistance of the non-operated leg. (Figure 4c)

Now extend your operated leg all the way back up, using the non-operated leg for assistance. **(Figure 4d)** 

Perform \_\_3\_\_ sets of \_\_\_10\_\_ repetitions, \_\_3\_\_ times daily. Everyday

Red band indicates operated leg









Figure 4a Figure 4b

Figure 4c

Figure 4d