

# Lower Body

## Range of Motion Exercises



Figure 1 *Plantarflexion*



Figure 2 *Dorsiflexion*

### **Ankle Plantarflexion/Dorsiflexion**

- Hold the heel of the foot in one hand and the lower leg with the other hand
- Allow the toes to rest on your forearm
- By using the hand on the heel and your forearm, move the foot so that the toes move away from the patient's head as seen in Figure 1. Hold for 5-10 seconds.
- Now by using the hand on the heel and your forearm, move the foot so that the toes move toward the patient's head as seen in Figure 2. Hold for 5-10 seconds.
- Repeat each of these 10 times twice a day to both ankles.

### **Why is this important?**

- ❖ It is important to move the ankle in the above motion at least twice a day to maintain ankle range of motion for comfort, positioning, and circulation.
- ❖ Moving the ankle up and down encourages blood to flow into and out of the foot. This is important because our muscles usually encourage circulation by contracting and relaxing when we walk and move.



Figure 3 *Knee Extension*



Figure 4 *Knee Flexion*



Figure 5 *Hamstring Stretch*

### **Knee Flexion/Extension**

- With the knee straight, hold the heel of the foot with one hand and place the other hand under the knee. See Figure 3.
- Slowly bend the knee up toward the patient's chest until you feel resistance or the motion stops. Hold for 5-10 seconds. See Figure 4.
- Then slowly straighten the knee back out and hold for 5 seconds.
- Repeat this exercise 10 times twice a day to each side.

### **Why is this important?**

- ❖ It is important to maintain knee range of motion for the patient's comfort, transfers, and positioning (e.g. wheelchair positioning).

### **Hamstring Stretch**

- Place one hand on the heel and the other on the top of the knee.
- Slowly raise the leg toward the patient's head.
- Keep the leg straight with the hand on top of the knee.
- Raise the leg to the point of resistance and hold for 20-30 seconds.
- See Figure 5.
- Let the patient rest for 10-20 seconds and repeat stretch 5 times to each side twice a day.

### **Why is this important?**

- ❖ It is important to keep good hamstring flexibility in both legs for positioning purposes. It becomes harder to move, transfer, and position the patient when they have decreased hamstring flexibility.



Figure 6 *Hip External Rotation*



Figure 7 *Hip Internal Rotation*

### **Hip Internal/External Rotation**

- Place one hand on outside of lower leg/foot and the other on top of the knee. See Figure 6.
- With the knee and hip bent, rotate the hip out by bringing the foot toward the patient's opposite leg and the knee out away from the body. Hold for 5 seconds.
- Then rotate the hip in by bringing the knee in toward the patient's opposite leg and the foot out away from the body. Hold for 5 seconds.
- In both directions only go to the point of resistance. Do not push through the resistance.
- Repeat the exercise 10 times with each leg twice a day.

### **Why is this important?**

- ❖ It is important to maintain hip range of motion for the patient's comfort, transfers, and positioning.