

## **Closed Kinetic Lower Extremity Strengthening Exercises**

**Straight Leg Raises (open kinetic chain):** Lying down or sitting on the edge of a chair, tighten the upper leg muscles and raise leg 6 inches, hold 3 seconds then lower and repeat. Perform 3 sets of 10 repetitions each, resting between each set. Perform these exercises 3 times a day/ 6 days per week.

**Wall Squats or Mini Squats:** Lean against a wall with your back to it and slide your back down the wall. Your knee cap should not go over your toes. Do not let your knees bend beyond a 90 degree angle, and keep your foot/ankle directly below your knees when bent.

**Mini Squats:** Hold onto a table or chair and bend knee (or knees) slightly and straighten to beginning position. Again your knee should not go over your toes, keep your foot/ankle directly below your knees. Perform 3 sets of 10 repetitions. To progress, add weighted dumbbells or do single leg mini squats. You may also increase the sets/reps.

**Step Ups:** Injured leg stays on step or stair, step up using only the injured leg to move body weight up the stair. Slowly lower yourself back to starting position. When walking up or down stairs lead up the stairs with injured leg and down the stairs with the uninjured leg for strength and support.

**Calf Raises:** Raise up on your toes. Repeat this exercise slowly for 3 sets of 10 repetitions. Do this exercise with your toes pointing straight forward for one set, then with toes pointing out for one set, and finally with your toes pointing in (pigeon toed).

### **Other Recommended Exercises:**

Walking

Biking

Stairmaster

Swimming/ Jogging in a pool

Leg Press machine

### **Guidelines:**

Let pain be your guide. If an exercise hurts you, modify it.

Ice for 15 – 20 minutes after exercise sessions.

Do all exercises 2-3 times per day and 5-6 days per week.