**Lower Body Stretching PROTOCOL**

**BACKGROUND**

- **Importance**
  - To maintain proper muscle length balance
  - Stretch muscles that are prone to shortening
    - Shortened muscles can cause limitations in range of motion and can alter the alignment of the joints, leading to injury

- **Recommendation**
  - Stretch after warm-up but focus on stretching after activity
  - For best results, hold stretches at least 60 sec, but the longer and more often stretches are performed the better the results will be.
  - Ideally, stretches should be done every day. Be DISCIPLINED!

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**STRETCHING EXERCISES**

- **Hamstring Stretching 1**
  - Patient lies flat on their back with one leg through the door jam
  - One leg is placed up against the wall
  - Slowly move the body closer to the wall until a stretch is felt
  - Continue to move closer as flexibility increases

  **Frequency:** 1 set 3-5 min. 2-3 times a day.
  **Goal:** Increase hamstring flexibility

- **Hamstring Stretching 2**
  - Patient lies on flat on their back
  - With a towel wrapped around the foot, slowly raise leg
  - Continue until a stretch is felt and hold.
  - Try to keep opposite leg flat on the ground.

  **Frequency:** 3 sets of 60 sec. 2-3 times a day.
  **Goal:** Increase hamstring flexibility

- **Active Hamstring Stretch**
  - Patient lies flat on their back
  - Grasp behind the back of the leg and flex to 90°
  - Actively flex quads until a stretch is felt
  - Hold 15 sec and repeat 10 times

  **Frequency:** 3 sets 2-3 times a day.
  **Goal:** Increased hamstring flexibility

- **Quadriceps Stretches**
  - **Pic 1:** Kick back leg and slowly pull heel towards buttock
  - Try to keep knees close to each other and abdominals contracted
  - **Pic 2:** Begin with foot rested on a chair/bench
  - Slowly lower down until a stretch is felt

  **Frequency:** 3 sets of 60 seconds 2-3 times a day.
  **Goal:** Increased quadriceps flexibility
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**Hip Flexor Stretch**
Begin in a lunge position with knee bent to 90 degrees. Contract abdominal muscles to maintain back posture. Slowly move the hips forwards until a hip stretch is felt. Raise arm to increase stretch. Keep abs contacted!

**Frequency:** 3 sets of 60 sec.  2-3 times per day

**Goal:** Increase hip flexor flexibility

**IT band Stretch**
Stand next to a rail or stable object and grasp with hand. Step with the leg closest to the rail in front of the other leg. Slowly push hips away from the rail until a stretch is felt. Keep body straight during this exercise. Widen the distance during leg cross to increase the stretch.

**Frequency:** 3 sets of 60 sec.  2-3 times per day

**Goal:** Increase IT band flexibility

**IT band Mobilization**
Lay on a foam roller with top leg crossed over. Keep body in a straight line, do not bend hips. Roll from the hip to just above the knee. Use the other leg and hand to offload pressure. This exercise may cause some bruising to the thigh.

**Frequency:** 3 sets of 10 reps.  2-3 times per day

**Goal:** Increase IT band flexibility

**Calf Stretch 1**
Stand on a step with the ball of the foot on the edge. Slowly lower heel towards the ground. This stretch should be performed with the knee straight and slightly bent.

**Frequency:** 3 sets of 60 sec.  2-3 times per day

**Goal:** Increase calf flexibility

**Calf Stretch 2**
Stand with the ball of the foot against the wall. Slowly move body towards the wall until stretch is felt. This stretch should be performed with the knee straight and slightly bent.

**Frequency:** 3 sets of 60 sec.  2-3 times per day

**Goal:** Increase calf flexibility
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**Gluteal stretch**
Patient sits upright in a chair
Cross one ankle over the opposite knee and grasp the knee
Pull the knee towards the opposite shoulder.
Continue until a stretch is felt.

**Frequency:** 3 sets of 60 sec.  
**Goal:** Increase gluteal flexibility

**Piriformis Stretch**
Patient sits upright in a chair
Cross ankle over the opposite knee.
Push knee towards the ground while slowly bringing chest forward
Try to keep back straight.

**Frequency:** 3 sets of 60 sec.  
**Goal:** Increase Piriformis flexibility

**Adductor stretch**
Sit on the ground with bottom of the feet together.
Grasping feet, slowly press elbows into the legs and slowly bring chest forward until stretch is felt.

**Frequency:** 3 sets of 60 sec.  
**Goal:** Increase adductor flexibility

**Hamstring/adductor stretch**
Sit with legs apart, keeping back straight; reach towards your foot and hold.
Alternatively, reach forward, while keeping your back straight.

**Frequency:** 3 sets of 60 sec.  
**Goal:** Increase hamstring and adductor flexibility