



Exercises for Lower Extremity Injury Prevention

Robert Spatz, PT, MPA 01/2019





1) Downward Dog:

Feet placed at hip width. Bend forward at the hips, slowly reach down, placing the fingertips or hands to the floor. Relax the hamstrings as you exhale. Then “walk” forward, keeping the heels down, to stretch the calves.

2 x 60 seconds



2) Plank:

In the push-up position set feet hip width apart. Rest on forearms, hold your body up in a straight line, being sure to maintain, good neutral alignment. Push the heels down, keep knees straight and hips in line with knees.

10 x 10-30 seconds

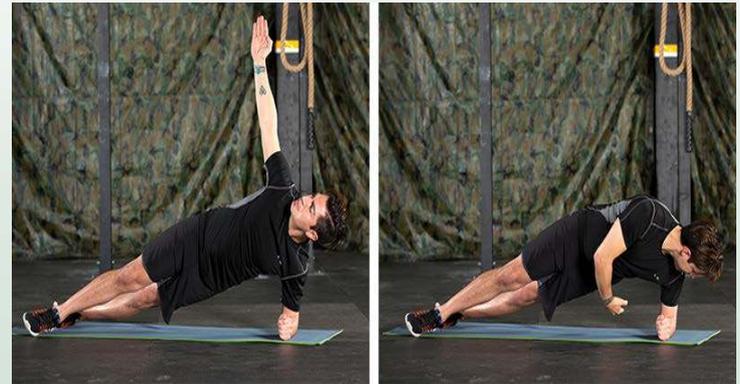




3) Rotational Side Plank:

Begin in a side plank with top arm straight up to ceiling. Keeping core tight rotate body toward the ground and reach under the body with the free arm. There should be no up and down movement in the spine or hips, they should remain in a straight line.

10x left and 10x right



4) Ankle inversion/eversion:

Inversion: start neutral and bring band toward your midline without bending or twisting knee.

Eversion: start neutral and press band out without bending or twisting knee.

2x10 inversion 2x10 eversion





5) Eccentric calf raise

Rise up onto the toes with both feet, remove the UNAFFECTED foot and slowly lower your body weight back to the ground.

3x 10



6) Toe yoga:

Sit or stand with knee stacked above ankle. Maintain the ball of the foot and heel on the floor the entire exercise.

- 1) Lift the big toe, keeping the little toes planted on the floor.
- 2) Lift the little toes, keeping the big toe planted on the floor.

3 x10





7) Lunge to Bosu:

Stand behind the Bosu Ball, take a step forward placing your foot on the Bosu Ball. Allow your front and back knee bend as you lower yourself towards the ground.

Do not allow your front knee to pass your toes. Return to the original position and then perform with the other leg.

2x 10 left and 2x 10 right

8) Single leg deadlift

Stand and balance on one leg.

Next, lean forward towards touching the floor as you extend and lift your leg behind your body. Keep your spine straight and hinge at the hip.

Return to starting original position and repeat.

2x 10 left and 2 x 10 right

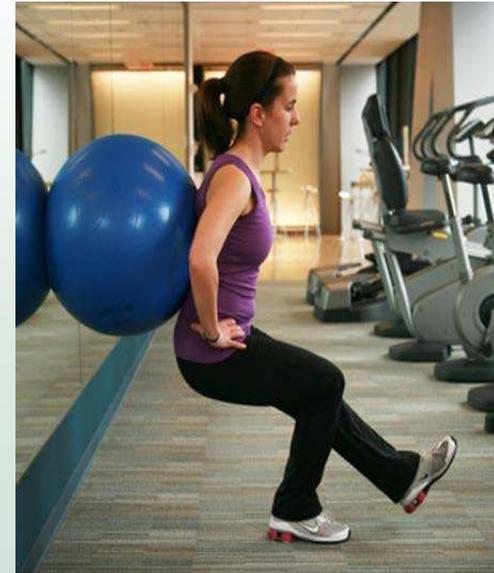




9) Single leg squat:

Place a ball between your back and the wall. Make sure your feet are forward enough that as you squat your knee will not go in front of your toes. Slowly squat down on one leg with control.

2x 10 left and 2x10 right



10) Jump/Pivot Squat:

Jump 90 degrees to the side and land into a squat. Next, perform again in the other direction and repeat. Be sure your landing is soft and the knees stay over the second toes.

3x10 cycles left and right





11) Skater:

Begin in a partial squat with the weight focused through your heel. Knee stays behind and in line with your big toe. Start by taking large steps side to side and focus on controlled deceleration. Gradually increase the size and speed of steps until they are jumps. If you cannot control the landing or if there is pain you are jumping too far.

3x10 cycles left and right



12) Nordic Hamstring curl:

While kneeling, have someone hold your ankles and lean forward slowly.

Control your motion at the knee by contracting your hamstring. Come back up to the starting position and repeat. Use a physio-ball for extra support if needed.

5 x 5 reps





13) Single leg bridge:

While lying on your back with knees bent, extend one knee so it is parallel with the opposite knee.

Next, raise your buttocks off the floor/bed.
Try and maintain your pelvis level the entire time.

2x 10 left and 2x10 right



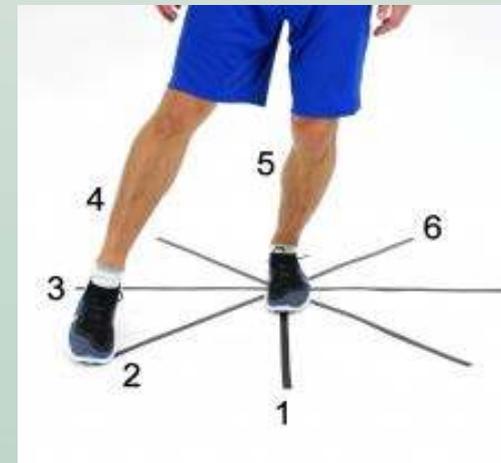
14) Star excursion

Start by standing on one leg and maintain your balance. Image a clock on the floor where your stance leg is in the center.

Then, lightly touch position 1 as illustrated with your non-stance foot. Then return that leg to the starting position.

Next, touch position 2 and return.
Continue this all the way to position 6.

Maintain a slightly bent knee on the stance side.



Move through the 6 positions 10 times