What is a sprain?
A sprain is an injury that can cause a stretch or tear in a ligament, a band of tissue connecting one bone to another.

What is a meniscus tear?
The ACL, or anterior cruciate ligament, connects the femur (thigh) to the tibia (shin). The ACL works along with the PCL, or posterior cruciate ligament, to keep the knee stable.

The meniscus cartilages are located in the middle of your knee. They act as shock absorbers and help to cushion the knee joint. An injury or tear of the meniscus cartilage can occur.

Good stretching, particularly of the hamstring and thigh muscle groups, can help runners to avoid these types of injuries.

Stretching and Strengthening Exercises

**Straight Leg Raise**
- Sit on the floor with one leg straight and the other bent as shown.
- Move the toes of your extended leg toward you as far as you can, while pressing the back of your knee down and tightening the muscles on the top of your thigh.
- Raise your leg 6 to 8 inches off of the floor and hold for 5 seconds. Slowly lower it back to the floor.
- **DO NOT** let your hip drop, your knee turn inward, or let your shoulders and trunk move to the side.
- Repeat 20 times, then alternate legs.

**Heel Raises**
- Stand on both feet, raise your heels off the floor and come up on your toes.
- Go as high as possible.
- Hold this position for 2 seconds, then slowly lower yourself back down.
- Do 3 sets of 10 repetitions.
Tips for Runners

**Straight Leg Raise**
- Sit on the floor with one leg straight and the other bent as shown.
- Move the toes of your extended leg toward you as far as you can, while pressing the back of your knee down and tightening the muscles on the top of your thigh.
- Raise your leg 6 to 8 inches off of the floor and hold for 5 seconds. Slowly lower it back to the floor.
*Repeat 20 times, then alternate legs.*

**Wall Squat with Ball**
- Stand with your back, shoulders and head against a wall and look straight ahead. Keep your shoulders relaxed and your feet 1 foot away from the wall and shoulders-width apart.
- Place a ball between your thighs.
- Keeping your head against the wall, slowly squat while squeezing the ball at the same time. Squat down until your thighs are parallel to the floor. Hold this position for 10 seconds. Slowly stand back up. Make sure to keep squeezing the ball throughout this exercise.
*Repeat 20 times.*

**Hip Abduction with Lateral Rotation**
- Position hips and shoulders up against the wall.
- Place a pillow between your legs.
- Your right (top) hip and knee should only be slightly bent.
- Slightly rotate your right knee so that your knee cap is pointing slightly upward.
- Lift your right leg and foot by moving at your hip joint. Slide leg up along the wall.
- **DO NOT** try to lift your right leg very high, or push down with your left (bottom) leg.
- Lower your right leg to the starting position.
*Do 2-3 sets of 10-15 repetitions.*
Tips for Runners

**Leg Lifts with Knee Extended**
- Lie face down with your legs straight and relatively close together.
- Place a pillow under your abdomen.
- Place your hands on your buttocks or on the front of your pelvis to tell if your pelvis is moving.
- Contract your abdominal muscles by pulling your navel toward your spine.
- Turn your right leg slightly outward as you contract your buttock muscles and lift your entire leg off the supporting surface.
- **DO NOT** let your pelvis move or lift your leg too high; there are only 10 degrees of hip motion in this direction.
- Hold for a count of 3-10 seconds, then return your leg to the starting position. Repeat with the opposite leg.
**Do 2-3 sets of 10-15 repetitions.**

**Leg Lifts with Knee Flexed**
- Lie face down with your legs straight and relatively close together.
- Place a pillow under your abdomen.
- Place your hands on your buttocks or on the front of your pelvis to tell if your pelvis is moving.
- Bend your right knee to 90 degrees, and contract your abdominal muscles by pulling your navel toward your spine.
- Turn your right leg slightly outward as you contract your buttock muscles and lift your entire leg off the supporting surface.
- **DO NOT** let your pelvis move or lift your leg too high; there are only 10 degrees of hip motion in this direction.
- Hold for a count of 3-10 seconds, then return leg to the starting position. Repeat with the opposite leg.
**Do 2-3 sets of 10-15 repetitions.**