



Understanding Running Injuries

Running places extraordinary demands on your body. Did you know that you can feel running injuries in many places, including the feet, shins, knees and hips? Catherine Logan, MSPT, a physical therapist, a personal trainer and a Pilates instructor at Sports and Physical Therapy Associates in Boston, describes a few types of injuries below. If you need assistance on performing exercises to help prevent the injuries, consult with a personal trainer. Or, see your healthcare professional if you think you already have an injury.

Iliotibial Band Syndrome

Iliotibial band (ITB) syndrome is a common cause of lateral (side) knee pain in runners and may occasionally cause lateral hip pain as well. The iliotibial band is a band of fibrous tissue that runs down the outside of the thigh. It promotes lateral stability to the knee and proper tracking of the kneecap. Irritation of the ITB can be caused by many factors, including inappropriate footwear, improper training, a leg length discrepancy, bowing of the legs at or below the knee, running on sloped or banked running surfaces, excessive pronation, muscle weaknesses, hip inflexibility or excessive mileage increases.

ITB syndrome typically begins as a general "achiness" but can progress into a sharp, more localized pain over the outer edge of the kneecap. ITB syn-

drome is generally treated conservatively by a physical therapist or an athletic trainer and rarely requires surgery.

Exercise to Help Prevent ITB Syndrome

Rolling the ITB on a foam roller can help decrease tightness in the band. Do 1–2 sets of 5–10 reps each side.

- Lie on side with full, round foam roller placed under thigh just below hip. Legs can be crossed to help maintain balance.
- Use arm or top leg (if legs are crossed) to propel body up and down roller along length of ITB (from just below hip to just above knee).



runners' injury prevention tips

1. Use adequate footwear with appropriate shock absorption.
2. Avoid running on banked roads.
3. If running regularly on a track, frequently change direction.
4. Do not increase intensity, duration or pace of training programs too quickly. Begin running on a level surface and gradually increase intensity.
5. Incorporate cross-training, especially non-weight-bearing cardiovascular exercise like swimming or biking.
6. Consult with a primary care physician about adequate calcium intake and any menstrual dysfunction or other abnormality.

Muscle Strains of Hamstrings

Runners are also susceptible to hamstring strains. Symptoms may include sharp pain in the hamstring and, in severe cases, bruising. Muscle strains in athletes often result from a sudden acceleration/deceleration movement or direction change. Risk factors may include lack of flexibility, poor running technique, increased age, prior injuries or muscle weaknesses.

The hamstrings, which act to extend the hip and flex the knee, may be injured during sprinting or hill climbing. Initially, a physical therapist or an athletic trainer will treat the pain, inflammation and loss of motion that result from a muscle strain.

Preventing Hamstring Injuries

It is important to strengthen *and* stretch the hamstrings to avoid injury. Do 3 sets of 12–15 reps of supine hamstring curls on a ball (if you can tolerate the exercise) to strengthen the hamstrings.

- Lie face up on mat with exercise ball under heels, arms relaxed at sides.
- Tighten abdominals and squeeze gluteals while pressing through heels and lifting buttocks off mat. Form a straight line from heels to shoulders.
- Next, keep buttocks lifted while bending knees and curling heels inward, and use hamstrings to bring ball toward buttocks. Return to start.

To *stretch* the hamstrings, do the following:

- Lie down with one leg straight up in the air and the other leg straight on the ground.
- Loop a towel over the arch of the lifted foot and gently pull the towel as you push against it with your foot. Hold a full 30 seconds, then repeat 3 times per side. ■

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