

# Preventing and Treating Running Injuries

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Running is a major component of many sports, and a favorite recreational activity for many. When executed properly, running provides enjoyment and boosts overall health, but there are a variety of reasons why running injuries can occur.

Improper warm up, pushing the body too hard and too soon, running accidents, and running with poor mechanics, or improper or worn out shoes are all factors that increase the risk of experiencing a running injury.

## **Common running injuries include:**

- Runner's knee
- Shin splints
- Stress fractures
- Achilles tendinitis (Calf muscle inflammation)
- Muscle strains
- Ankle sprains
- Plantar fasciitis (Jogger's heal)
- Iliotibial band syndrome
- Blisters

A beneficial strategy that helps prevent running injuries is dynamic stretching.

These types of stretches can be performed before an activity that involves running or to simply condition the body and better prepare it for the occasional run.

Dynamic stretches are controlled movements that are performed slowly at first and then build up in speed and range of motion to get the joints and muscles working at the load required for your activity. This helps prevent running injuries by increasing the elasticity, temperature, and flexibility of tendons and muscles before an individual starts running.

In order to enhance the healthy benefits of dynamic stretching, it is important that the movements mimic the activity that will be performed. For instance, leg pendulums and spinal rotations are beneficial prior to running, whereas lunges and footwork are more appropriate for soccer or ultimate frisbee.

Dynamic stretching has been shown to enhance range of motion, heighten performance, and increase muscle flexibility when it is incorporated into the warm up routine. Static stretching is best suited for after your run or sport to allow the muscles to slow down their firing speed and lengthen again.

The following section provides a description of several dynamic stretches that help prepare the body for running:

### **Leg pendulums**

1. Stand in place with the hands on the hips or hold onto the back of a chair or a wall for support if it is needed.
2. Swing the right leg forward and backward to a position that does not cause pain or discomfort.
3. Repeat the leg pendulums 5 to 10 times.
4. Place the right leg on the ground and perform leg pendulums with the left leg 5 to 10 times.
5. This stretch can also be repeated by facing the wall and swinging the right leg out to the side 5 to 10 times.
6. Followed by swinging the left leg out to the side 5 to 10 times.
7. Steadily increase your speed of swing and range of motion as you limber up.

### **Spinal rotations**

1. Stand upright with the feet placed shoulder-width apart and stretch the arms out to the side at the height of the shoulders.
2. While keeping the hips and feet in a stationary position, begin to gently rotate or swing the upper body and ribcage from left to right.
3. Repeat this stretch 10 to 20 times, steadily increasing your speed and range of motion.

### **Knees High and Heel kicks**

1. Start this stretching technique by jogging in place for 10 to 15 seconds.
2. Next, jog in place driving your knee up toward your chest for 10 to 15 seconds
3. Then jog in place trying to get your heel in contact with your buttocks for 10 to 15 seconds.
4. Repeat this technique 5 to 10 times.

Please refer to this patient guide for more extensive information on stretching exercises.

Another way to prevent running injuries involves wearing appropriate shoes for your running activity. There are running shoes available to match almost any runner's foot mechanics (motion support or motion control), foot shape, and activity. Specific shoes like trail running shoes or soccer cleats are important to allow you to properly grip the ground or turf. The Physical Therapists at Purposed Physical Therapy can assess your foot and running mechanics to help determine the right footwear for you.

In the event that an injury does occur, there are some important steps you can take right away to manage your acute injury. Many of us are familiar with the RICE technique of Rest, Ice, Compression and Elevation for the first 24-48 hours if you sustain a significant injury. More recently, acute injury care guidelines have shifted to the PRICE technique, adding in P for Protect the area from further injury - by using a brace or support for example. PRICE promotes healing by reducing swelling, pain, and excessive movement or load that could worsen the injury.

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In the case of milder injuries, or once a significant injury has reached the subacute stage after 3-7 days, taking the MEAT approach can get you on the road to moving well again. MEAT stands for Movement, Exercise, Analgesics (pain relievers), and Treatment. Working with a physiotherapist is an especially beneficial way to treat a running injury, as they help individuals maintain the proper balance between resting and gently moving the injured region. Too much movement following a running injury can delay recovery, but resting the area for too long can lead to weakened muscles or tendons.

A skilled professional can guide you through your specific injury to determine how and when to move and whether ice is needed after exercise over the first crucial 10-14 days after an injury. A physiotherapist also provides individualized guided instruction on stretching, balance and proprioception routines, agility techniques, and strengthening exercises for the feet, legs, hips and core. These types of exercises promote a more rapid recovery and provide conditioning that helps prevent future running injuries.

If you are suffering from a running injury, the physiotherapists at Purposed Physical Therapy can evaluate your current condition and design a treatment plan that will put you on the path to recovery and reduce the risk of experiencing a similar type of injury contact Purposed Physical Therapy today.

## References

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