

Reviving Legs and Feet from overuse

by Maya Fallows, O.T. Reg. (NS)
Member Assistance Program, EIP Case Coordinator

We all know teachers, administrators, specialists and community college members work long hours involves standing continuously on a daily basis. What you may not know is you can implement strategies to rest and recover your legs and feet from overuse.

The health of your legs and feet can be at risk with the ultra marathoning you do. Not taking time to recover after the day, or not working in some preventative strategies throughout the day, can contribute to the risk. The term “accidental athletes” has been used to describe the teaching community because you work out your legs and feet to the same level of many athletes. You are performing all of this activity unintentionally, not even realizing the impact on your body. This high performance daily activity will lead to angry muscles and joints that have been over worked and over stimulated. It’s the equivalent of running a marathon and the response is fatigue, soreness, and restlessness.

Beyond simple fatigue and discomfort, more serious health effects can result from working on your feet. Some of these include plantar fasciitis and heel spurs, orthopedic changes in the feet (e.g. flat feet), restricted blood flow, swelling in the feet and legs, varicose veins, and increased chance of arthritis in the knees and hips.

What can cause these health issues?

- **Joint Compression:** Gravity compresses your joints. Each body part is squeezed by all of the sections of the body above it. Your feet are compressed by the weight of your entire body.
- **Postural muscle fatigue:** Postural muscles keep your body upright while you’re standing or walking. Standing or walking for prolonged periods forces these muscles to work without a rest. Without rest these muscles become tired and worn out, resulting in pain or tenseness.
- **Inadequate venous blood return in the legs:** Gravity pulls blood down into your feet. Blood is pushed back up to your heart through recurring muscle contractions, often called a ‘muscle pump’. If the muscles are occupied in one lengthy contraction to keep you standing, they cannot fabricate a ‘muscle pump’ effect.
- **Shock transmission from heel impact on the floor:** With regular walking, your heel strikes on the floor with a force of 1.5 to 2 times your body weight. This impact can lead to microscopic damage to the soft tissue of your feet. With insufficient rest (i.e. sitting), these microscopic traumas can lead to injury.

What can you do to promote the health and well-being of your legs and feet?

- Try to arrange your work activities so you can alternate between standing and walking, with sitting. Incorporating periods of sitting throughout the day is a great way to rest and recuperate. Your chair supports your body, giving your legs and feet a break. Consider sitting or perching on a stool for positions that traditionally require standing. If on a high stool, you can still easily be seen by all your students, capturing their attention.

With smaller classes, it may be possible to rearrange student seating so you may sit on a classroom chair but still be easily viewed by all your students, i.e. semi circle.

If sitting is not an option, there is still an advantage from alternating between standing and walking as walking has a muscle pump effect to increase blood flow and can somewhat counteract the effects of working on your feet.

- **Shift your balance between feet.** This allows one leg to rest while the other supports your body. This also increases blood flow in the legs. You could also try standing with one foot raised on a box or small stool. This posture moves your weight forward from the heel to the ball of your foot.
- **Wear supportive foot wear and consider the use of insoles or orthotics.** Using insoles or orthotics is similar to having an anti-fatigue mat inside your shoes. The benefit is that you can take your mat anywhere you go. Insoles will change the fit of your shoe so it may be necessary to buy both shoes and insoles at the same time to ensure an appropriate fit. Always ask your treating health professional(s) if you have concerns about your insoles or orthotics. You may consider buying a new pair of shoes as this can achieve

the same effect. As shoes break down, their shock absorbency decreases and may provide little or no protection against the effects of working on your feet.

Consider the following when purchasing shoes:

- Wear shoes that do not change the shape of your foot.
- Shoes should have a firm grip for the heel, but allow freedom to move the toes. Your feet should not slip inside your shoes. Such instability can lead to soreness and fatigue. Shoes with laces allow more control of how your shoe fits.
- Wear shoes with arch supports.
- Shoes with flat soles are not recommended. Your heel should be elevated by at least 1/4-inch.
- Shoes with heels higher than two inches are also not recommended.

So, all of you teachers, ultra marathoners, accidental athletes, please pay attention to the health of your legs and feet. Reduce your risk of injury from working on your feet.

To learn more about how you can improve the health of your legs and feet if you re standing on the job, please contact the staff at NSTU’s Early Intervention Program for Teachers at eip@nstu.ca, local 902-477-5621, or toll free 1-800-565-6788.