



## A Pain in the Foot

By Dr. Delia Roberts

### A pain in the foot

Work boots can protect you from some injuries, but they can also stress your feet in ways that can lead to painful and sometimes persistent injuries. When you consider that your feet absorb forces in the range of four to seven times body weight – with every step you take - it's not surprising that sixty percent of people will suffer from foot pain. So check out this article to learn about how you better look after these important appendages!

### Choose the right boot

Depending on your job you'll need different footwear. This is not the place to skimp, as literally every step you take depends on your boots. A full shank boot is stiff, it will provide more lateral support to help prevent ankle sprains. But it also doesn't bend, which increases the chances of developing blisters, and problems with bone spurs and nerves in your feet. Similarly, there's a trade-off when choosing waterproof boots. They'll prevent water from entering your boots from the exterior, but with more sweat glands per centimeter than any other place in your body, your feet can produce more than a cup of fluid per day! Newer breathable, but water resistant fabric boots are a compromise; they won't keep you dry if you're standing in water or snow, and they are less durable. But reducing the amount of sweat moisture trapped in your boots will keep your feet much more comfortable. Socks made of materials designed to wick the sweat away from your feet may also help – but if the boot is airtight the moisture won't have anywhere to go. This makes it worth considering a pair of breathable boots

for hot weather, unless you really need the extra protection from wet ground.

It goes without saying that fit is critical - anyone who has worked in boots knows that. If you find it hard to find a good fit the addition of a good pair of insoles can go a long way towards correcting certain kinds of problems. These days there are a wide variety of inexpensive off-the-shelf athletic insoles that can provide arch support and thereby change the way your foot sits in the boot. In addition, sports stores that fit skates or ski boots have tools to punch out a bit more space around the toes, forefoot, and anklebones no matter whether your boot is made of leather or other materials. It's critical not to have any pressure points as the bone will respond by thickening and the problem can get much worse.

### Skin Irritations

A good fit and dry feet will also help to prevent skin irritations, ranging from painful blisters to fungal infections. If you have a persistent itchy or painful rash it can signal a more serious infection, so seek medical treatment to make sure that you get the right treatment. Blisters can be avoided by wearing good socks without seams, and covering areas that rub with a preventative tape or a blister wax product that decreases friction. Applying the tape to problem areas ahead of time when your feet are dry will help make sure that it doesn't bunch up and create more irritation. If the skin has already broken, cut a generous donut from foam moleskin so that the wound doesn't wear into the deeper layers of skin, and be sure to keep it as clean and dry as

possible to avoid infection. Areas of healed blisters or pressure points can thicken and create corns or calluses that then become painful, so address these areas sooner than later. It also helps to keep your toenails trimmed, cutting them straight across at a length even with the ends of your toes. This helps avoid the formation of ingrown toenails. If you have diabetes or are prone to this painful condition, consider seeing a podiatrist to learn how best to trim your nails so that they grow properly. The reduced blood flow that occurs with diabetes increases the risk of this and other foot skin problems.

Two additional foot skin problems are associated with colder weather. Constant exposure to cold wet feet can create a condition known as trench foot, so named because it was common during World War I. This serious problem occurs most often at temperatures around zero degrees Celsius, when wearing wet footwear for long periods of time. If the fall and spring expose you to these kinds of conditions, dry your boots out each night while keeping your feet dry and exposed to the air as much as possible when not at work. Midwinter, when the temperatures drop below zero frostbite can occur, especially if you have poor circulation to your feet. Unfortunately, once frostbite starts to set in there is also a loss of sensation, so you may not be aware that damage is occurring. On very cold days, stop periodically to warm your feet or if you work in sustained sub-zero temperatures, consider heated socks. They are expensive, but if they save you from losing a toe to frostbite the dollars are well spent. If you do get frostbite, warm

*Continued on page 21...*

Continued from page 20...

the area gently as soon as possible, but if there is any risk of re-freezing the affected area, it's best to leave the tissue frozen until you get help.

## Tendon and Ligament Injuries

Two common tendon injuries can occur when working on steep ground or when covering long distances on foot. The first, Achilles tendonitis, is an irritation in the large tendon that attaches the calf muscle to the back of the heel. Watch for pain at the bottom of your calf reaching down towards your heel and the characteristic tell tale of tendonitis - crepitus (a creaking feeling as the tendon rubs against its sheath). Keeping your calf muscle strong and limber, and avoiding sudden large increases in your workload will help prevent problems in this area. There is also a fluid filled sac called a bursa, located underneath this tendon against the back of the heel. If your boots put pressure on this area, the tendon or bursa can also become swollen and bruised.

The plantar fascia is another broad tendon that runs from the heel, underneath the foot to attach to the base of the toes. This tissue is stretched with every step, and can become problematic if the arch is not well supported or the muscles of the foot are weak. The first sign of Plantar fasciitis feels like you've bruised the bottom of your heel, but it can quickly advance to a very painful "bite" with each step. Exercises like heel-raises and toe curls (while seated, use your toes to grab and pull a towel along the floor towards you), followed by rolling your foot on a small ball and stretching your calves and feet should be done for a few minutes several times per week to help prevent both of these kinds of injuries.

Ankle sprains and strains are a third common type of tendon and ligament injury. The most common type occurs when stepping on unstable ground such that the ankle rolls over towards the outside. These injuries can require a long recovery period, so the best

defense is similar to the same types of foot care discussed above. Choose appropriate boots for the ground you are working on – unstable surfaces require a stiffer sole with more ankle support. And keep your feet and ankles strong by performing two sets of 15 heel raises at least twice a week. Do them while you brush your teeth, and when they get easy progress as follows;

1. Up and down on two feet
2. Up on two feet and down on one foot
3. Up and down on one foot
4. Up and down on one foot, no hands
5. Stand on a cushion so it's a bit unstable
6. Move up to 20 reps
7. Do them on a block, stepstool or stair so that your heel drops down past horizontal
8. Put on a backpack loaded with books or tin cans for weight

In addition to heel raises and towel toe curls, other great strengthening exercises for you feet and ankles are ankle circles, and also foot slides. In this exercise you slide your foot out along the floor until only the ends of your toes remain in contact with the floor. Then draw your foot back to the starting position. Keep the pressure downward into the floor as you slide your foot out, and tag all directions, forward, side, back and kitty corner. You can do all of these exercises while watching television! As with heel raises and ankle circles, start with around 10 repetitions in two sets twice a week and build up, adding more reps or elastic banding for resistance. Be sure to go both clockwise and counter clockwise when doing your ankle circles.



## Morton's Neuroma

Pressure from shoes or boots that are too narrow or have very rigid soles can lead to irritation of the nerves that run between the bones of the forefoot. The most common place where this occurs is between the third and fourth toe. Some people describe the feeling as though they are stepping on a pebble. Known as a Morton's neuroma, this condition can be extremely painful, so adjust your footwear at the first sign of burning pain in this area. Continuing to irritate the nerve will only lead to more serious problems. A metatarsal pad (or just a triangle of foam moleskin) can be taped to the insole of your shoe, positioned with the horizontal arm of the triangle lined up just behind the ball of your foot at the third and fourth toe. The idea is that when you step on the padding, it pushes up against the area that is constricting the nerve to separate the bones and create more space. When this injury becomes chronic, the standard treatment is a corticosteroid injection or even surgery so get after this one at the first sign of a problem.

These are a few of the kinds of injuries that can lead to painful foot problems. While you can't plan for every eventuality, making sure to have the right boots and doing a few foot exercises can go a long way to keep your feet happy for years to come. 🍏

# Comprehensive Workplace Health and Safety Program

Information courtesy of the Canadian Centre for Occupational Health and Safety

As an employer, assessing your workplace for hazards should be a key component of a health and safety strategy with a developed plan to address and mitigate the identified hazards. But hazards are not only physical, they can also be psychological. One way to achieve a psychologically safe workplace is to create a Comprehensive Workplace Health and Safety (CWHS) Program.

## What is a Comprehensive Workplace Health and Safety Program?

A CWHS program is a coordinated strategy with related activities, initiatives, and policies developed by the employer, in consultation with employees, your workplace health and safety committee, or your health and safety representative. The goal is to develop a plan that will continually improve or maintain the quality of working life, health and the well-being of workers including their physical, psycho-social, organizational and economic growth.

## Benefits of a CWHS Program?

### Improved:

- creativity
- employee co-operation
- employee engagement
- employee retention
- morale and employee satisfaction
- productivity
- recruitment

### Reduced:

- absenteeism
- employee turnover
- grievances
- health costs
- medical leave, disability and work time lost
- workplace injuries and incidents

## Components of a CWHS Program?

A Comprehensive Workplace Health and Safety Program has four main components which can overlap and cross over into various areas.

1. Occupational health and safety
2. Psycho-social work environment
3. Wellness promotion
4. Social responsibility

### 1. Occupational health and safety

Occupational health and safety is considered the physical work environment. It addresses the hazards and risks of the physical environment to help reduce physical work-related injury, illness and disability by reducing physical hazards.

### 2. Psychosocial work environment

The psychosocial environment covers both the workplace culture and how work is organized.

Workplace culture is defined as the attitudes, values and beliefs that guide workplace behaviors and influence the work environment on a daily basis and factors that affect the interaction between people, their work, and the organization.



Organization of work includes work expectations including individual workload demands, quality of work, communication, control and influence over the work, distribution of workload, clarity of role, organizational support and change management.

### 3. Workplace health promotion (Wellness / Well-being)

Wellness programs provide a proactive approach to healthy living for all employees at the workplace and cover a broad range of well-being issues including healthy and active living, lifestyle, mental well-being and immunization programs.

Typically a wellness program is implemented through employee needs assessments and is a worker's choice to participate in the program.

### 4. Social Responsibility

Some companies consider Company Social Responsibility and involvement in the community important to the overall well-being of the company, it's employees and how they are established within the community.

Some companies have built their social responsibility programs supporting local charity events, sponsoring an employee team, allowing family members to attend employer sponsored vaccination clinics or encouraging employees to volunteer in the community.

## Resources:

To help you build a Comprehensive Workplace Health and Safety Program, visit some of these websites for more information.

- Canadian Centre for Occupational Health and Safety (CCOHS) - [Healthy Minds@Work](#)
- The Mental Health Commission of Canada's - [National Standard of Canada for Psychological Health and Safety in the Workplace](#)

In our next issue of Forest Safety News – we'll cover Workplace Burnout and how to identify the beginning stages and the conditions creating burnout. 🧠