

# Caring for Your Feet

## Safe Foot Care if You Have Diabetes

**Wounds Canada has developed a simple guide that can be used by patients with diabetes and their care partners for caring for their feet at home.**

Over time, diabetes can lead to foot problems such as diabetic foot ulcers (DFUs) (which are wounds or breaks in the skin) which, if not cared for properly, can lead to infection and amputations. Preventing ulcers from occurring is the best strategy for reducing the chances of serious health problems. The information in this guide on how to care for feet is great for people without diabetes too!



### Why do people with diabetes have an increased risk for foot problems?

People with diabetes have increased risk for foot problems for two main reasons:

- 1. Nerve damage**, called neuropathy, that prevents the person from feeling when their foot has been injured. Neuropathy is a condition that develops in people who have had diabetes for a long time or whose blood glucose levels are not managed well. The type of neuropathy that people with diabetes have tends to be the loss of the ability to feel the normal pain signals of an injury in the feet (and sometimes in the hands too). It is not usually a total loss of feeling, but rather tingling or numbness. Because of the neuropathy, a person with diabetes may not know when they injure their feet. Even a small injury, left untreated in a person with neuropathy, can lead to a foot ulcer that becomes a serious health threat.
- 2. Slow wound healing.** People with diabetes often have poor blood flow to the feet because of changes in blood vessels caused by the disease. Without good blood flow, wounds can take a long time to heal and may even stop healing altogether, both of which can lead to very serious health problems.

### How can I prevent diabetic foot complications?

**Start with a healthy lifestyle.** Be aware that your blood glucose levels, smoking habits, alcohol use and cholesterol level and are all factors that affect your risk of developing diabetic foot complications. Exercise daily unless you have an ulcer. If you already have foot complications discuss your exercise plan with your care team. Set realistic and practical lifestyle goals that will reduce your risk of developing diabetes-related foot complications.

**Disclaimer:** The content in this resource is for informational purposes only and is NOT a substitute for professional medical advice, diagnosis or treatment. You should always consult with your health-care professional before starting any new treatment or changing or stopping an existing treatment.

**Look at your feet—every day!** Perform daily foot inspections (use a mirror to inspect the bottom of each foot if it is hard to see or have a care partner assist if you need help to see all parts of your foot—tops, bottoms, sides). Use the worksheet on page 3 to track your inspections and note any changes. This worksheet will be useful if you need to contact your health-care professional about any concerns you have about the health of your feet. Here's what you should be checking:

- **Your skin:** Look for broken skin, redness, callus build-up, cuts, bruises, scratches, cracks, blisters, ulcers and anything else that looks different, is new or is unusual. See the box on page 3 for more details.
- **Your toenails:** Look for tears, irregular edges, colour changes, bruising and trauma.
- **The temperature of your feet:** Use a personal infrared thermometer to see if one foot is hotter than the other or than the day before. This can be an early sign of complications. Infrared thermometers can be ordered online and are available at most auto supply and hardware stores and pharmacies.

**Build a team.** Get to know your foot care and footwear providers, such as podiatrist/chiropractist, foot care nurse, pedorthist, as well as the professionals who help you with your general health, such as your doctor and diabetes educator (see page 7). Keep their contact information handy, and don't hesitate to contact them if you notice symptoms that concern you. Managing diabetes can be very stressful. If you are experiencing diabetes-related signs of burnout (anger and frustration, worrying about demands of diabetes), talk to your health-care professionals about support services that can help you.

**Take charge of prevention.** When you visit your primary care provider, always take off your shoes and socks and have them inspect your feet. Discuss what they have found and work together on a plan to identify and prevent problems based on any new changes.

**Care for your feet.** You need to take an active role in daily foot skin and nail care. Here are some key things that can help you prevent problems:

- Keep your feet clean and dry, especially between your toes.
- Moisturize the skin on your feet daily, but not between your toes.
- Keep your nails trimmed properly. Talk to your health-care provider about whether you can do this yourself or if you need to get professional help. See page 4 for basic skin and nail care instructions for your feet.

**Protect your feet.** Foot damage in a person with diabetes may take longer to heal, so it's important that you prevent the damage from happening. Here are some tips.

- Before putting on socks, check for tears or seams that could rub your foot.
- Wear shoes that fit. See page 5 for more information on selecting the right kind of footwear.
- Wear the right type footwear for the activity you are doing. Always wear shoes. You don't need to wear shoes when you are in bed, but you do need to put shoes on when you get up in the night to go to the bathroom. You **will** stub your toes at some point, and your footwear should take that blow, not your toes.
- Shake out and check the inside of your shoes before putting them on—**every time**. Why? Often, people with neuropathy put on shoes that contain objects, such as tacks, or have rough spots such as seams. The objects or rough spots can injure the foot, but the person can't feel it because of the neuropathy.
- Avoid extreme temperatures. For example, do not use heating pads on your feet and always check water temperature before stepping into it. Wear protective warm boots against the cold in winter.
- Do not use adhesive tape, wart treatments, corn plasters or strong antiseptics on your feet unless prescribed by a health-care professional.

Learn to recognize the signs of complications and know where to go for assistance. (See the [Diabetic Foot Complications: When is it an emergency?](#) resource.)

## Daily Foot Exam Worksheet

Make copies of this worksheet and follow these instructions to record the condition and progress of your feet every week:

- Examine all parts of your feet daily, including the areas between your toes and the top, sides and bottom. Use a mirror, if you need to, to examine the bottoms of your feet. Look for any changes, such as redness, blistering, callus, scratches and any areas of shape change. Mark these on the drawings below:
  - Mark any areas of **redness** with an **R**
  - Mark any **callus** areas with a **C**
  - Mark any **scratches, blisters or ulcers** (ulcers are wounds or breaks in the skin) with a **U**
  - Mark any **shape change** of your foot with an **S**
- Examine all your toenails to ensure they are the proper length and have no rough edges.
- Measure the temperature of your feet using a personal infrared thermometer to detect signs of temperature change that can alert you to early signs of complication. Infrared thermometers can be ordered online and are available at most auto supply and hardware stores and pharmacies.

Date: \_\_\_\_\_  
 through: \_\_\_\_\_

Sunday		Monday		Tuesday	
Left Foot	Right Foot	Left Foot	Right Foot	Left Foot	Right Foot

Wednesday		Thursday		Friday		Saturday	
Left Foot	Right Foot	Left Foot	Right Foot	Left Foot	Right Foot	Left Foot	Right Foot

## Basic Skin and Nail Care for Your Feet

### SET UP:

1. Get comfortable in a location with good lighting.
2. Arrange your tools: a pumice stone (single use), nail file (preferably single use), a straight-edge nail clipper and a mild pH-balanced, non-scented moisturizer.

### CLEAN:

3. Look at your feet and wash them with lukewarm water, a mild pH-balanced soap, and a soft washcloth **(a)**. Dry well, especially between the toes. **Do not soak your feet.**
4. Carefully clean under the exposed or free edge of the nail with the file **(b)**.

### TRIM AND CONDITION:

5. Clip your nails straight across, leaving a 3 mm (1/8 inch) free edge across the top of the nail **(c)**.
6. Pumice or file the nail corners so they are not sharp.
7. Decrease callus build-up carefully with a pumice stone **(d)**.
8. Moisturize your feet if they are dry, but not between your toes.

### FINISH:

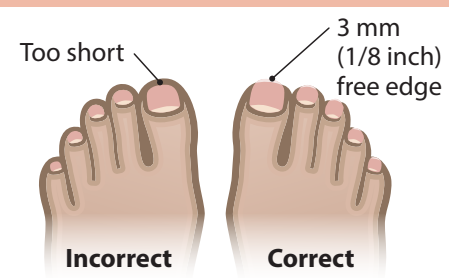
9. Take note of anything unusual (and/or take a photo).
10. Clean all reusable tools with soap and warm water and let them air dry. Once dry, disinfect the tools with 70% isopropyl alcohol by wiping.



**Figures a–d:** Start with a clean foot, clean under free edge, pumice thickened skin

### Important:

**Do not cut your nails too short.** Leave a 3 mm (1/8 inch) free edge.



### CAUTION:

If you have diabetes, you are at higher risk for foot complications than the average person. If you do your own skin and nail care, injuries can happen that can lead to serious harm. If your health-care provider has told you that your risk for complications is low and you can do your own skin and nail care, follow the steps above. However, if you are at high risk, only a trained professional should do the skin and nail care for your feet, beyond daily foot washing, drying and moisturizing.

## How to Select Shoes that Fit

Most shoes are designed to give protection to the feet and to help prevent injury. As a person living with diabetes, you must make sure you shoes that fit properly to avoid foot injury. Shoes should be based on your lifestyle (work, home and play) and activity level. The right footwear is one of the cornerstones of healthy feet!

Buying Shoes to Fit Your Feet	
Do ...	Don't ...
<ul style="list-style-type: none"> <li>Buy shoes that fit the size and shape of your feet. They need to be wide, deep and long enough to accommodate the size and shape of your feet. If you have neuropathy see a footwear specialist (a pedorthist).</li> </ul>	<ul style="list-style-type: none"> <li>Don't buy shoes that you hope will stretch; this will create pressure.</li> <li>Don't buy narrow or pointed shoes or shoes with a shallow toe box; this can result in blisters, bunions and other problems.</li> <li>Don't buy shoes that are too big; your foot will slide in the shoes causing skin damage</li> <li>Don't wear hand-me-downs (if possible).</li> </ul>
<ul style="list-style-type: none"> <li>Buy shoes at the end of the day when your feet are at their largest. (Some feet will swell during the day.)</li> </ul>	<ul style="list-style-type: none"> <li>Don't buy shoes first thing in the morning when your feet are at their smallest; the shoes will end up being too tight by the end of the day.</li> </ul>
<ul style="list-style-type: none"> <li>Buy shoes with a full back and with good ankle support.</li> </ul>	<ul style="list-style-type: none"> <li>Don't buy shoes with high heels, only a strap at the back and/or no ankle support.</li> </ul>
<ul style="list-style-type: none"> <li>Buy shoes with Velcro, buckles or laces and make sure they provide mid-foot support.</li> </ul>	<ul style="list-style-type: none"> <li>Don't buy slip-on shoes for walking, as they do not give good support and will result in foot strain and toe deformity.</li> </ul>
<ul style="list-style-type: none"> <li>Buy leather shoes or shoes made of other breathable materials.</li> </ul>	<ul style="list-style-type: none"> <li>Don't buy shoes made with synthetic material, such as plastic, as they do not allow the foot to breathe and may lead to wet, soggy skin, which can break down and result in an ulcer.</li> </ul>
<ul style="list-style-type: none"> <li>Buy shoes with a shock-absorbing sole.</li> </ul>	<ul style="list-style-type: none"> <li>Don't buy shoes without padding to cushion the force of each step you take.</li> </ul>
<ul style="list-style-type: none"> <li>Buy shoes that suit your activities.</li> </ul>	<ul style="list-style-type: none"> <li>Don't wear high heels or slip-on shoes for physical activity, as these result in foot strain, pain, foot deformity, corns and calluses.</li> </ul>

Adapted from Botros M, Kozody L, Orsted H. Preventative foot care. *Wound Care Canada* 2008; 6(1):68-69.

### Shoe Tips:

- Have your feet measured every time you purchase shoes.
- Check that the ball of your foot rests in the widest part of the shoe.
- Wear new shoes around the house on carpeting for about an hour; return them if they cause problems such as redness.
- Replace your shoes regularly. Look for signs of wear, such as rough edges in seams or linings, and worn soles or heels.
- Ask your health-care provider for a prescription for footwear. The cost of some shoes may be covered by your health benefits.

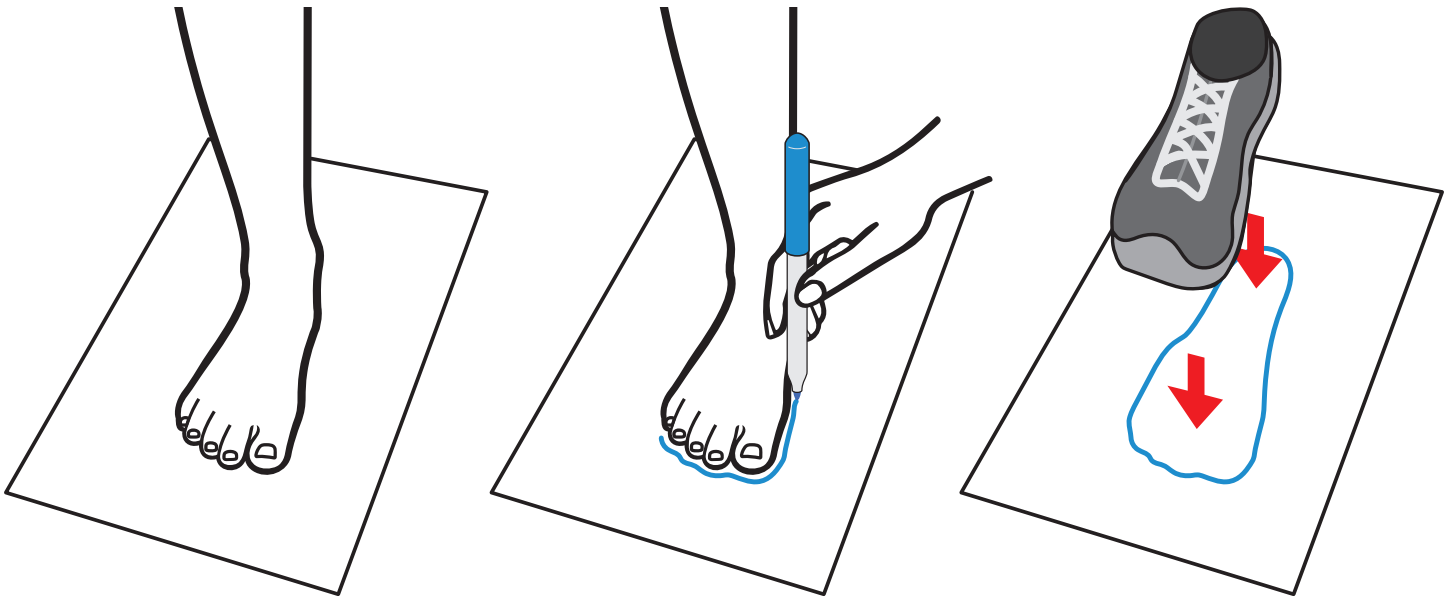
## Shoe Fit Test

Use a blank sheet of paper to trace an outline of each of your feet. This will help you determine if your shoes fit properly.

- Remove your shoes and socks.
- While standing, place one foot on the page and trace around the edge of your foot with a pen. Hold the pen snug to your foot and keep it vertical. Your care partner can help if you cannot reach your feet.
- Remove your foot from the page and place your shoe on top of the tracing.

**If any part of the tracing line is visible from under your shoe, your shoe is too small.**

- Repeat this test for your other foot.



## Your Foot Care Team

The table below lists the different types of care providers and settings that may assist you in managing your diabetes and caring for your feet.

What they are called	What they do
<b>Family physician</b>	Your family physician can monitor your health and help you with diabetes control.
<b>Podiatrist/chiroprapist</b>	A doctor of podiatric medicine (DPM) is trained in treating foot and ankle conditions. In Ontario, they are called chiroprapists.
<b>Foot care nurse</b>	This is a nurse with specialized training who can provide foot care for people at high risk for diabetes-related foot complications.
<b>Pedorthist</b>	A certified pedorthist, or Ped. (C), is trained to modify, make or fit special footwear.
<b>Orthotist</b>	A certified orthotist (CO) has specialized training in custom designed or pre-made orthotic devices for treating foot problems.
<b>Diabetes educator</b>	A certified diabetes educator (CDE) can teach you how to best manage your diabetes.
<b>Diabetic foot clinic</b>	This is a specialized clinic where foot problems associated with diabetes are identified and managed.
<b>Dietitian</b>	A registered dietitian (RD) can work with you to develop a healthy-eating plan to control blood glucose and other diabetes-related health issues.
<b>Social worker</b>	Social workers may assist you with the emotional impact of diabetes, your coping skills and finding financial aid and other resources to help you manage your diabetes and related complications.
<b>Endocrinologist</b>	Endocrinologists can help you gain control over your diabetes through medication management.
<b>Vascular specialist</b>	Vascular specialists can help in identifying and treating peripheral arterial disease, which is often found in people with diabetes.
<b>Infectious disease specialist</b>	Infectious disease (ID) specialists help to manage complex infections, such as those that may occur in a person with a diabetic foot ulcer.



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**CARE AT HOME SERIES**

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