



Diabetes and Foot Problems

Foot problems are common in people with diabetes. You might be afraid you'll lose a toe, foot, or leg to diabetes, or know someone who has, but you can lower your chances of having diabetes-related foot problems by taking care of your feet every day. Managing your blood glucose levels, also called blood sugar, can also help keep your feet healthy.

How can diabetes affect my feet?

Over time, diabetes may cause nerve damage, also called [diabetic neuropathy](#), that can cause tingling and pain, and can make you lose feeling in your feet. When you lose feeling in your feet, you may not feel a pebble inside your sock or a blister on your foot, which can lead to cuts and sores. Cuts and sores can become infected.

Diabetes also can lower the amount of blood flow in your feet. Not having enough blood flowing to your legs and feet can make it hard for a sore or an infection to heal. Sometimes, a bad infection never heals. The infection might lead to [gangrene](#).

Gangrene and foot ulcers that do not get better with treatment can lead to an [amputation](#) of your toe, foot, or part of your leg. A surgeon may perform an amputation to prevent a bad infection from spreading to the rest of your body, and to save your life. Good foot care is very important to prevent serious infections and gangrene.

Although rare, nerve damage from diabetes can lead to changes in the shape of your feet, such as [Charcot's foot](#). Charcot's foot may start with redness, warmth, and swelling. Later, bones in your feet and toes can shift or break, which can cause your feet to have an odd shape, such as a "rocker bottom."



Charcot's foot can cause your feet to have an odd shape, such as a "rocker bottom."

What can I do to keep my feet healthy?

Work with your health care team to make a diabetes self-care plan, which is an action plan for how you will manage your diabetes. Your plan should include foot care. A foot doctor, also called a podiatrist, and other specialists may be part of your health care team.

Include these steps in your foot care plan:

Tips to Take Care of Your Feet

- [Check your feet every day.](#)
- [Wash your feet every day.](#)
- [Smooth corns and calluses gently.](#)
- [Trim your toenails straight across.](#)
- [Wear shoes and socks at all times.](#)
- [Protect your feet from hot and cold.](#)
- [Keep the blood flowing to your feet.](#)
- [Get a foot check at every health care visit.](#)

Check your feet every day

You may have foot problems, but feel no pain in your feet. Checking your feet each day will help you spot problems early before they get worse. A good way to remember is to check your feet each evening when you take off your shoes. Also check between your toes. If you have trouble bending over to see your feet, try using a mirror to see them, or ask someone else to look at your feet.

Look for problems such as

- cuts, sores, or red spots
- swelling or fluid-filled blisters
- ingrown toenails, in which the edge of your nail grows into your skin
- corns or calluses, which are spots of rough skin caused by too much rubbing or pressure on the same spot
- plantar warts, which are flesh-colored growths on the bottom of the feet
- [athlete's foot](#)
- warm spots



If you have certain foot problems that make it more likely you will develop a sore on your foot, your doctor may recommend taking the temperature of the skin on different parts of your feet. A “hot spot” can be the first sign that a blister or an ulcer is starting.

Cover a blister, cut, or sore with a bandage. Smooth corns and calluses as explained below.

Wash your feet every day

Wash your feet with soap in warm, not hot, water. Test the water to make sure it is not too hot. You can use a thermometer (90° to 95° F is safe) or your elbow to test the warmth of the water. Do not soak your feet because your skin will get too dry.



After washing and drying your feet, put talcum powder or cornstarch between your toes. Skin between the toes tends to stay moist. Powder will keep the skin dry to help prevent an infection.

Smooth corns and calluses gently

Thick patches of skin called corns or calluses can grow on the feet. If you have corns or calluses, talk with your foot doctor about the best way to care for these foot problems. If you have nerve damage, these patches can become ulcers.



If your doctor tells you to, use a pumice stone to smooth corns and calluses after bathing or showering. A pumice stone is a type of rock used to smooth the skin. Rub gently, only in one direction, to avoid tearing the skin.

Do **NOT**

- cut corns and calluses
- use corn plasters, which are medicated pads
- use liquid corn and callus removers

Cutting and over-the-counter corn removal products can damage your skin and cause an infection.

To keep your skin smooth and soft, rub a thin coat of lotion, cream, or petroleum jelly on the tops and bottoms of your feet. Do not put lotion or cream between your toes because moistness might cause an infection.

Trim your toenails straight across

Trim your toenails, when needed, after you wash and dry your feet. Using toenail clippers, trim your toenails straight across. Do not cut into the corners of your toenail. Gently smooth each nail with an emery board or nonsharp nail file. Trimming this way helps prevent cutting your skin and keeps the nails from growing into your skin.



Have a foot doctor trim your toenails if

- you cannot see, feel, or reach your feet
- your toenails are thick or yellowed
- your nails curve and grow into the skin

If you want to get a pedicure at a salon, you should bring your own nail tools to prevent getting an infection. You can ask your health care provider what other steps you can take at the salon to prevent infection.

Wear shoes and socks at all times

Wear shoes and socks at all times. Do not walk barefoot or in just socks – even when you are indoors. You could step on something and hurt your feet. You may not feel any pain and may not know that you hurt yourself.

Check the inside of your shoes before putting them on, to make sure the lining is smooth and free of pebbles or other objects.



Make sure you wear socks, stockings, or nylons with your shoes to keep from getting blisters and sores. Choose clean, lightly padded socks that fit well. Socks with no seams are best.

Wear shoes that fit well and protect your feet. Here are some tips for finding the right type of shoes:

- Walking shoes and athletic shoes are good for daily wear. They support your feet and allow them to “breathe.”
- Do not wear vinyl or plastic shoes, because they do not stretch or “breathe.”
- When buying shoes, make sure they feel good and have enough room for your toes. Buy shoes at the end of the day, when your feet are the largest, so that you can find the best fit.
- If you have a [bunion](#), or hammertoes, which are toes that curl under your feet, you may need extra-wide or deep shoes.¹ Do not wear shoes with pointed toes or high heels, because they put too much pressure on your toes.

- If your feet have changed shape, such as from Charcot's foot, you may need special shoes or shoe inserts, called orthotics. You also may need inserts if you have bunions, hammertoes, or other foot problems.

When breaking in new shoes, only wear them for a few hours at first and then check your feet for areas of soreness.

[Medicare Part B insurance](#)  and other health insurance programs may help pay for these special shoes or inserts. Ask your insurance plan if it covers your special shoes or inserts.

Protect your feet from hot and cold

If you have nerve damage from diabetes, you may burn your feet and not know you did. Take the following steps to protect your feet from heat:

- Wear shoes at the beach and on hot pavement.
- Put sunscreen on the tops of your feet to prevent sunburn.
- Keep your feet away from heaters and open fires.
- Do not put a hot water bottle or heating pad on your feet.



Wear socks in bed if your feet get cold. In the winter, wear lined, waterproof boots to keep your feet warm and dry.

Keep the blood flowing to your feet

Try the following tips to improve blood flow to your feet:

- Put your feet up when you are sitting.
- Wiggle your toes for a few minutes throughout the day. Move your ankles up and down and in and out to help blood flow in your feet and legs.
- Do not wear tight socks or elastic stockings. Do not try to hold up loose socks with rubber bands.
- **Be more physically active.** Choose activities that are easy on your feet, such as walking, dancing, yoga or stretching, swimming, or bike riding.

- Stop smoking.



Smoking can lower the amount of blood flow to your feet. If you smoke, ask for help to stop. You can get help by calling the national quitline at 1-800-QUITNOW or 1-800-784-8669. For tips on quitting, go to [SmokeFree.gov](https://www.smokefree.gov) .

Get a foot check at every health care visit

Ask your health care team to check your feet at each visit. Take off your shoes and socks when you're in the exam room so they will remember to check your feet. At least once a year, get a thorough foot exam, including a check of the feeling and pulses in your feet.



Get a thorough foot exam at each health care visit if you have

- changes in the shape of your feet
- loss of feeling in your feet
- [peripheral artery disease](#)
- had foot ulcers or an amputation in the past¹

Ask your health care team to show you how to care for your feet.

When should I see my health care provider about foot problems?

Call your health care provider right away if you have

- a cut, blister, or bruise on your foot that does not start to heal after a few days
- skin on your foot that becomes red, warm, or painful—signs of a possible infection
- a callus with dried blood inside of it, which often can be the first sign of a wound under the callus
- a foot infection that becomes black and smelly—signs you might have gangrene

Ask your provider to refer you to a foot doctor, or podiatrist, if needed.

References

[1] American Diabetes Association. Microvascular complications and foot care. *Diabetes Care*. 2016;39(Suppl. 1):S78.

Clinical Trials

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and other components of the National Institutes of Health (NIH) conduct and support research into many diseases and conditions.

What are clinical trials, and are they right for you?

Clinical trials are part of clinical research and at the heart of all medical advances. Clinical trials look at new ways to prevent, detect, or treat disease. Researchers also use clinical trials to look at other aspects of care, such as improving the quality of life for people with chronic illnesses.

[Find out if clinical trials are right for you](#) [NIH](#) .

What clinical trials are open?

Clinical trials that are currently open and are recruiting can be viewed at www.ClinicalTrials.gov [NIH](#) .

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