

GUIDANCE FOR DIABETES SELF-CARE

MODULE 01: FOOT CARE



PAHO



Pan American
Health
Organization



World Health
Organization
REGIONAL OFFICE FOR THE
Americas

GUIDANCE FOR DIABETES SELF-CARE

Module 01: Foot care

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DIABETES AND YOUR FEET

01 Introduction

This document describes a key element in diabetes care and is intended for people with diabetes, their families, and carers.

It is designed to promote diabetes self-care and lists some basic recommendations to help prevent diabetic foot lesions. It is not intended to replace any instructions given by doctors or health care teams, but to serve as an aid to help prevent one of the most common complications of diabetes.



This document
DESCRIBES

Why diabetes causes foot problems

Why the presence of foot wounds is serious, common, and a medical emergency

Tips for everyday foot care

Why foot care should be prioritized

How to prevent foot injuries

Resources to learn more about diabetes foot care

02

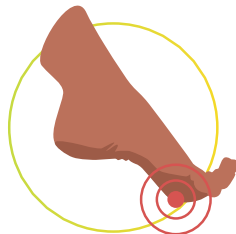
Why diabetes causes foot problems

Foot problems are common in people with diabetes. This is because high blood sugar levels (hyperglycemia) over extended periods can affect blood circulation and lead to nerve damage, particularly in the legs and feet (diabetic peripheral neuropathy).

Other factors that can
INCREASE THE RISK
of foot problems in persons with
diabetes



Poorly controlled
blood sugar levels



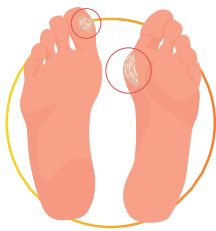
Diabetic peripheral
neuropathy
(damage to nerves
in feet)



Peripheral arterial disease
(circulatory damage to the
lower extremities)



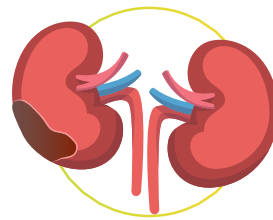
Foot deformities
such as bunions,
hammertoes, or claw
toes



Corns and
calluses



Previous injuries or
amputations



Diabetic kidney disease,
especially in people on
dialysis or kidney transplant
recipients



Smoking

Peripheral diabetic neuropathy causes a loss of sensation and can sometimes also lead to foot deformities.

This in turn can lead to incorrect weight loading on your foot or difficulty walking. As people with diabetic peripheral neuropathy lose sensitivity to pain, heat, and cold, they may not notice injuries, burns, or other foot injuries and, therefore, delay seeing their doctor.

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Why the presence of foot wounds is serious, common, and a medical emergency

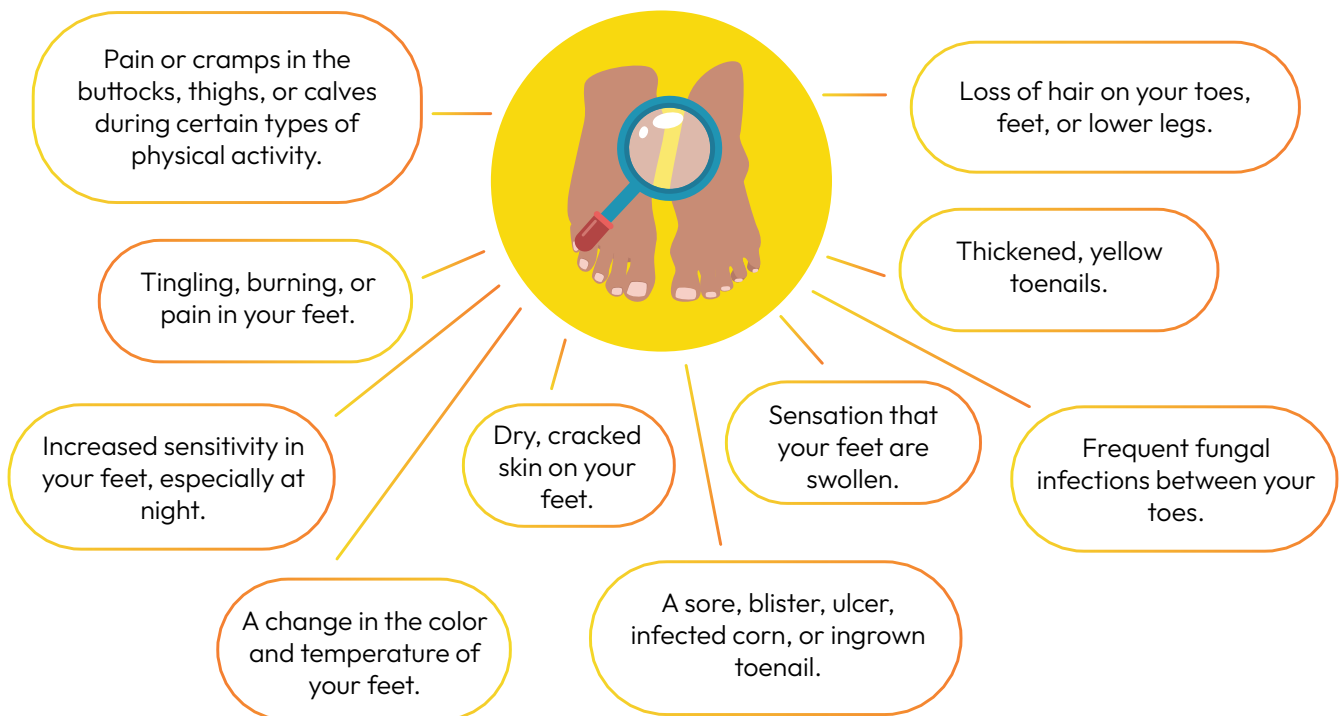
Go to the doctor's office and **start treatment as soon as possible** if you have any foot injury. Because of the damaged blood vessels, wounds heal very slowly and can easily become infected. **The consequences are sometimes so severe that amputation may be necessary.**

Many people with diabetic peripheral neuropathy have no symptoms at all. This is a risk factor because the lack of pain increases the likelihood of injury, ulcers, and amputations.

You should see your doctor regularly and request that your feet be examined to rule out possible complications.



OTHER SYMPTOMS MAY APPEAR
with diabetic peripheral neuropathy that
would require medical attention.
These include



DIABETIC FOOT ULCER

Diabetic foot ulcer is a serious and common complication. It is one of the leading causes of death in people with diabetes.

Ulcers may occur anywhere on the foot or ankle. They are usually caused by ill-fitting footwear or walking barefoot (remember that diabetes causes reduced sensitivity to pain, heat, and cold). When the skin breaks, it loses its protective function. Ulcers are, therefore, open to infections. Sometimes the damage is so severe that surgical removal (amputation) of a toe, a foot, or a leg is required.

One of the best ways to reduce the risk of foot ulcers, and therefore amputation, **is the prompt detection of injuries and immediate appropriate treatment.**

Foot ulcers are a medical emergency and can be life-threatening. Seek medical care as soon as possible.

To avoid
SERIOUS FOOT PROBLEMS
you should



Inspect your feet every day, looking at the top and bottom of your feet as well as between your toes. Check for cuts, scratches, blisters, redness, swelling, or nail problems. Use a magnifying hand mirror to check the bottom of your feet.

If you have trouble checking your feet (movement or vision problems), **ask someone to help you do so.**

Bathe your feet in lukewarm water--never hot. Check the water temperature with your elbow or wrist. Keep your feet clean by washing them daily.

Be gentle when bathing your feet: **Wash them using a soft washcloth or sponge.** Dry by blotting or patting and carefully dry between the toes.

After washing and drying your feet, **use a moisturizer** to prevent dry skin from itching or cracking.

Cut nails carefully in a well-lit area. Ideally it should be done by an experienced podiatrist. If you must do it yourself, always cut nails straight across and file the edges, preferably with an emery board.



Avoid antiseptic soaps as they strip the skin of its natural protection.

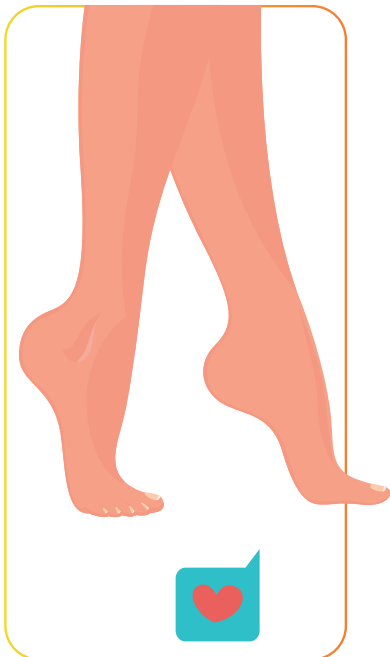
Do not soak your feet, to prevent breakdown of the skin.

Do not moisturize between your toes as this could encourage a fungal infection.

Do not cut nails too short, as this could lead to ingrown toenails. If you have a visual impairment, let someone else cut your nails. If you have any concerns about your nails, consult your doctor.

Never treat “cut” corns or calluses yourself. Do not use medicated pads. Visit your doctor for appropriate treatment.

PROTECT YOUR FEET



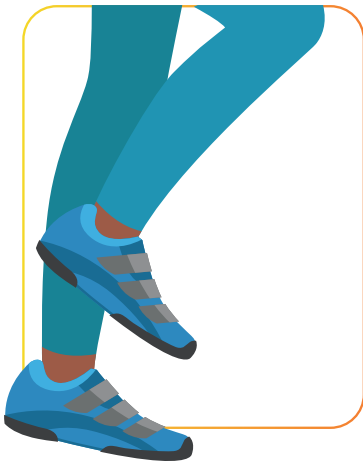
- Do not use “callus removers,” metal files, or pumice stones.
- Keep your feet warm and dry.
- Do not use heaters or hot water bottles to warm your feet.
- Never go barefoot or just with socks. Not even at home! Always wear shoes or slippers. You could step on something and get hurt or cut.
- If you must remain in bed for illness or are bedridden, consult your medical team for temporary protective measures to prevent heel pressure sores.
- Have your feet checked regularly by a professional with experience in diabetic foot care.

SOCKS AND STOCKINGS

- Change your socks every day. Wash them inside out.
- Wear shoes with clean cotton socks or stockings, without bulky seams. If seamless socks are not available, put socks on inside out, with seams facing outward.
- The elastic on the top of the socks should be soft to allow good blood circulation.



FOOTWEAR



- Shake out your shoes and feel the inside before putting them on. Remember that your feet may not feel pebbles or other foreign objects in the shoe, so always inspect them before putting them on.
- Wear appropriate socks and footwear. The inside length of the shoe should be 0.4 to 0.8 inches (1 to 2 centimeters) longer than the foot and should not be too tight or too loose.
- Wear shoes with a round-toe shape with plenty of room to comfortably move your toes.
- Avoid open-toe shoes or sandals.
- Buy shoes later in the day (when feet may be more swollen) and try them on to see if they fit properly.
- Break in new shoes slowly, wearing them for an hour or two a day.
- If you have any foot deformity, callus, or previous injury, talk to your doctor about the need for therapeutic footwear. This type of footwear includes extra-depth shoes as well as custom-made footwear and insoles.
- Never wear the same shoe that caused a foot ulcer or injury.



If you answer **YES** to any of the following questions, **URGENT ACTION MAY BE NEEDED**

Have you noticed changes in skin color on your feet?

Have you lost feeling in your feet?

Have you had pain in your legs or feet lately?

Have you noticed changes in the shape of your feet?

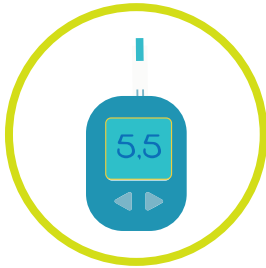
Do you have cuts or scratches on your feet?

Do you have ingrown toenails?

Do you have itching or cracking between your toes or on the soles of your feet?



If you notice any of these changes in your feet, do not wait for the next appointment. Contact your health center or emergency department right away.



Manage your diabetes. Keep your blood sugar under control.



Do not smoke. Smoking decreases blood circulation to your feet.



Do not use hot water bottles or put your feet near stoves.



Do not walk barefoot, even in summer.



Do specific exercises for your feet, 10 minutes a day. For example: a) Make circles with your feet, first in one direction and then in the other; b) Move feet up and down; and c) Wiggle your toes.

Other self-care measures, such as **eating a balanced diet**, **regular physical activity**, **losing weight if you are overweight or obese**, or **controlling blood pressure**, are also important in diabetic foot care.



Remember that any problems with your feet, such as changes in skin color, fungal infections, or wounds (however small), should be monitored immediately. Do not wait for the next appointment. Go to your health center and have your medical team evaluate you.



For more information on diabetes foot care, visit the links to the following publications:

Centers for Disease Control and Prevention. Diabetes and your feet. Atlanta: CDC; 2022. Available from: <https://www.cdc.gov/diabetes/library/features/healthy-feet.html>

International Diabetes Federation. Clinical practice recommendation on the diabetic foot: A guide for health care professionals. Brussels: International Diabetes Federation; 2017. Available from: <https://idf.org/about-diabetes/resources/?type=276>

International Working Group on the Diabetic Foot. Practical guidelines on the prevention and management of diabetes-related foot disease. IWGDF 2023 update. Amsterdam: IWGDF; 2023. Available from: <https://iwgdfguidelines.org/wp-content/uploads/2023/07/IWGDF-2023-01-Practical-Guidelines.pdf>

Pan American Health Organization. HEARTS D: Diagnosis and management of type 2 diabetes. Washington, D.C.: PAHO; 2020. Available from: <https://www.paho.org/en/documents/hearts-d-diagnosis-and-management-type-2-diabetes>

GUIDANCE FOR FOOT CARE IN PEOPLE WITH DIABETES

This document describes a key element in diabetes care. It is aimed at people with the disease, their families, and caregivers. Its purpose is to contribute to the self-management of diabetes by providing some basic orientations to prevent the appearance of foot injuries.

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