# **Diabetes and feet** Information & advice for self-care



Advice: Being diabetic may not necessarily mean you are at high risk of developing foot complications, however if you have any concerns please discuss this with your GP or healthcare professional.

## What is it?

Diabetes is a disease that develops from high blood glucose levels, which can cause damage to the nerve systems in your body by stopping important messages getting to and from your brain. The nerves most likely to be affected are the longest ones – those that reach all the way down to your legs and feet. This nerve damage is sometimes called neuropathy.

High blood glucose levels can also damage your blood vessels and thereby circulation to your feet and legs, due to less blood getting to your skin, muscles and tissues.

# Is it serious?

Any injury or hard skin has the potential to develop into something more serious if you have diabetes. When the skin is damaged, it may not heal so easily and sometimes this can cause an ulcer to form on your foot.

Additionally, if you have lost feeling in your feet, it is possible that you may unknowingly damage your feet. You may stand on sharp objects like a nail, piercing the skin even down to the bone without realising it. If unnoticed and not treated appropriately, this can have potentially serious consequences and could lead to an amputation. Such an outcome is less likely if you seek expert advice from your multidisciplinary foot care team.

## Who gets it?

Anyone can suffer from diabetes and you are more likely to if your close relatives have the disease. Other risk factors include obesity, high cholesterol and blood pressure, as well as physical inactivity. Your chances also increase as you get older.

### How do I know I have it?

Diabetes may affect your feet in a number of ways. One of the early changes can be loss of sensation (peripheral neuropathy) in your feet, often starting at the toes. Your chances of losing feeling in your feet (neuropathy) increases with the number of years that you have diabetes, and research suggests that up to one in three people with diabetes have some loss of sensation.

The onset of neuropathy is gradual and often people who develop this complication are unaware of it at the start. Often it occurs between 7 and 10 years

of having diabetes, although in some cases it can occur sooner where blood sugar levels have not been so well controlled. Very occasionally, pain or a burning sensation may accompany loss of feeling (painful neuropathy).

Additionally, when the nerves in your feet are affected, other changes may follow, for example, your toes may start to claw and the bones in your feet can become more susceptible to fractures. Another change that can occur is reduced blood flow to your feet. Diabetes may also affect your ability to heal and reduce your natural ability to fight bacteria. Consequently, you should take particular care of any scratches, cuts or blisters on your feet.

# How do I prevent it?

Preventing foot problems involves managing your diabetes well, controlling blood glucose levels (along with your cholesterol and blood pressure) and leading a healthy, active lifestyle. Your chances of doing this will be great increased if you do not smoke. By adopting these measures, you can prevent or slow down any changes to the nerves and blood vessels that supply your legs and feet.

In addition, regular foot care is important in preventing the build-up of hard skin, as well as moisturising your feet in order to keep the skin supple, and always wearing the right shoes and socks that fit properly. Everyone who has diabetes should also have their feet checked regularly with a healthcare professional (podiatrist, nurse or doctor), and at the very least once a year at their annual review. However, if you are at increased risk of complications, these inspections may be done more frequently.

Simple self-care measures include:

- Always check your feet every day
- Clean and dress any cuts, scratches or wounds
- Always wear footwear
- Always wear shoes that fit properly
- Never sit with your feet too close to a fire
- Visit a podiatrist for corns and calluses
- Avoid using corn plasters

#### What are the treatments?

If you have diabetes, you can expect your healthcare professional to see you regularly throughout the year, along with ideally other members of a multidisciplinary foot care team. However, if you are at increased risk of an ulcer, these inspections may be more frequent and carried out by a podiatrist.

The podiatrist will normally check both the blood supply to your feet and any evidence of loss of sensation in your feet. Blood supply will be checked by looking at the colour of the skin, checking the pulses in the feet and by asking questions about certain kinds of pains in your feet and legs.

Usually, people have two pulses in their feet: one on the top (dorsalis pedis) and one on the inside of the ankle (posterior tibial). Most often, the podiatrist will check these pulses by feeling the pulse with their fingers or they will use a small hand held scanner (called a doppler) to listen to the pulse.

Sensation will most commonly be checked with a monofilament and tuning fork. The monofilament is a plastic probe that is designed to buckle at a given pressure and is a good indicator for loss of feeling.

The podiatrist will also be looking for any foot deformity or signs of excessive loading that may warrant either footwear advice or in some cases an insole.

#### When should I see a podiatrist about it?

If you experience any form of neuropathy or pain or discomfort, it is advisable to consult your diabetic clinic or podiatrist, since it is possible in many cases to alleviate these symptoms. If you see any of the following in your feet, you should also seek medical attention or consult your podiatrist:

- Walking becomes more difficult
- Applying or wearing shoes becomes more difficult
- Tingling sensation or pins and needles
- Part or all of your foot becomes swollen
- Breaks in the skin, opens sores/blisters or a discharge
- Skin colour changes (redder, bluer, paler, blacker) over part or all of the foot
- Swelling in your feet and/or an unusual odour
- Part or all of your foot feels much hotter or colder than usual
- Hard skin (callus)
- Cramp in your calves
- Shiny smooth skin and/or losing hair on your feet and legs

#### When should I see an NHS podiatrist?

If you have any foot health concerns and think this may potentially lead to a complication, please consider discussing a podiatry referral with your GP.

If your foot becomes red, hot or swollen with new pain, with or without a wound, please ask your GP to refer you to the Podiatry Service.

For more detailed and comprehensive information about diabetes and foot care generally, please consult the websites below:

www.footindiabetes.org www.diabetes.org.uk www.patient.co.uk www.nhs.uk www.nice.org.uk

#### Compliments, concerns or complaints

PALS may be the best starting point if you have a question or concern. If you would like to find an NHS dentist, know where your nearest doctor is or talk through a problem you have had with a service, you can contact the PALS service.

#### Tel: 01502 445447

#### Email: ECCH.patientliaison@nhs.net

Or write to: PALS, East Coast Community Healthcare, Hamilton House, Battery Green Road, Lowestoft, NR32 1DE

This content was produced by the College of Podiatry. Find out more: https://cop.org.uk/common-foot-problems



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