



Southport and  
Ormskirk Hospital  
NHS Trust

# **PATIENT INFORMATION**

## **Diabetic Foot Care**

## **Feet**

Foot problems can affect anyone who has diabetes, whether they are being treated with insulin, tablets non-insulin injections or diet and physical activity only.

People with diabetes are more likely to be admitted to hospital with a foot ulcer than with any other complication of diabetes. This is because diabetes may lead to poor circulation and reduced feeling in the feet. It is important to understand how foot problems develop and how they can be prevented or detected early so that they can be treated successfully.

### **In this section you can find out:**

- how diabetes can affect your feet
- how you can take some simple steps to avoid problems with your feet
- what a foot examination involves.

### **How can diabetes affect your feet?**

If it is poorly controlled, diabetes can damage nerves and blood vessels. Nerve damage is called neuropathy.

There are three types of neuropathy, and they can all affect your feet:

#### **Sensory neuropathy**

This affects the nerves that carry messages from the skin, bones and muscles to the brain and affects how we feel temperature, pain and other sensations. It is the most common form of neuropathy, mainly occurring in nerves in the feet and legs, and can lead to a loss of feeling and a

failure to sense pain. This could mean that you might develop a blister or minor burn without realising it, which, if not treated properly, could become infected or develop into an ulcer.

## **Motor neuropathy**

This affects the nerves responsible for sending messages to the muscles about movements, such as walking. If the nerves supplying your feet are affected it could cause your feet to alter shape. Your toes may become clawed (curled) as your arch/instep becomes more pronounced or the arch may 'fall' causing flat feet. This can cause the bones in your foot to fracture (break) when stressed.

## **Autonomic neuropathy**

This affects the nerves which control activities which our bodies carry out all the time, which we have no control over. Damage to these nerves may affect your sweat glands, reducing secretions and making your skin dry and inelastic. If not looked after the skin may crack and become sore and prone to infection.

## **Circulation**

Diabetes may also affect the circulation by causing the arteries to become 'furred up' (atherosclerosis). This can affect all the major blood vessels, especially those supplying the feet. Without a good blood supply, you will have problems with cuts and sores, which do not heal very well, and as a result of poor circulation, you may also suffer from cramp and pain in your legs and/or feet. If your diabetes is poorly controlled, you run greater risk of poor circulation and the problems associated with a poor blood supply to your feet. High blood pressure; a high fat content in your diet

and, in particular, smoking, all increase the risk of poor circulation.

**Steps you can take to prevent problems happening include:**

- give up smoking
- keep your blood glucose, blood pressure and cholesterol levels as near normal as possible
- eat a healthy diet which is low in fat, sugar and salt, and high in fruit and vegetables
- make sure that your feet are not exposed to extremes of heat or cold
- take regular physical activity, for example a brisk walk each day
- make sure that your socks and shoes are comfortable and fit well
- check your feet daily, including in between your toes
- attend your annual foot review (for those over 12 years old)
- know your risk of developing foot problems
- Many people only see a podiatrist (chiropodist)\* on a referral, so make sure you keep any appointments you are given.

**How do I look after my feet?**

It is a good idea to check your feet every day, looking for signs of calluses (areas of thickened hard skin), changes in colour and breaks in the skin. You might want to use a mirror to see the soles of your feet. If this is difficult, or if your eyesight is not as good as it was, try to get someone else to check your feet for you.

Fortunately, you do not usually need to do anything very different from other people – general advice on footcare applies to you.

## **General hygiene**

Wash your feet each day, use soap and warm water – check the temperature of the water before you put your feet in. Dry your feet carefully, especially between the toes. There is no advantage in soaking your feet: this just makes the skin soggy and increases the risk of damage.

## **Skin**

To keep your skin healthy, use an emollient cream and discuss with your healthcare team which one is best for you. Do not apply any cream between your toes as this will make the area too moist and can make an infection such as athlete's foot more likely.

If you use talc between your toes, be careful not to use too much as often it becomes clogged and can allow an infection to develop. You may find a pumice stone helpful for areas of hard skin, but it must be used with care. Never use a blade. If the hard skin is excessive, seek professional advice. Never use corn removal plasters: they contain acid which can cause the skin to break down.

## **Nails**

Cut your nails regularly. Don't cut them down the sides or too short. Remember, your nails are there to protect your toes. It is safest to trim your nails with a pair of nail clippers and to use an emery board to file the corners of your nails. If it is difficult for you to care for your nails, you should seek help from a podiatrist. You may have to pay for this service.

Cutting a 'v' shape in the nail to stop it in growing is an old fashioned idea which is incorrect.

If you feel your nail is rubbing on your shoe, it may not be the nail which is too long but the shoe which is too short.

Some people try to clean the edges and sides of their nails using the sharp point of nail scissors. This is very dangerous. If you feel that your nails need clearing of dirt and debris, simply use a nailbrush or an old toothbrush and brush from the base of the nail forward.

If it is difficult for you to care for your nails, you should seek help from a podiatrist.

## **Footwear**

The right shoes and stockings/tights/socks will help to keep your feet healthy. This is why your choice of footwear is so important. It is not normally necessary to buy special or expensive shoes. As long as you follow the guidelines below, you should be able to buy the right footwear in a high street store and at a reasonable price.

Shoes that do not fit well, even those that feel comfortable, can cause corns, calluses, in growing toe-nails, blisters and ulcers. If you have neuropathy or poor circulation, wearing unsuitable shoes is likely to make even simple foot problems worse. Finding shoes that fit is not just a matter of buying a pair that feel comfortable or snug. Ideally, to ensure that the shoes you buy are suitable for you, you would have your feet measured for size and width by a trained shoe fitter each time you buy new shoes, but this is seldom available now. So take extra care.

Buy shoes which:

- are broad fitting
- have a deep and rounded toe area
- are flat or low heeled
- are fastened by a lace or buckle to keep the heel in the back of the shoe: the foot can then not slide forward and crush the toes at the end of the shoe.

If you are unsure of the fit or style that is most suitable for you, do ask a registered podiatrist for advice.

Always examine the inside of your shoes for sharp objects or stones before putting them on and replace ruffled innersole linings. Avoid socks, stockings or tights with wrinkles or prominent seams.

Garters and stockings or socks with elastic tops should also be avoided because they may restrict the circulation. Never wear socks with darned areas or holes.

### **What are the danger signs?**

Swollen areas, changes in the colour of your skin or a slow-healing wound could indicate poor circulation, an infection, the early stages of an ulcer, or gangrene. Foot ulcers can be treated successfully, especially in the early stages. If they are left untreated, the risks of infection are high. The earlier the treatment, the more successful the outcome is likely to be, so seek immediate advice.

Pain in the feet and legs should never be ignored. Your body is telling you that there is a problem. Even painless sores can be very serious and should not be ignored. Sores and cuts that do not heal are important danger signs. Seek immediate advice. Your diabetes may not be well controlled, you may have an infection or your circulation may have worsened. All of these can be successfully treated if discovered early.

Check your feet every day: if you notice any of the danger signs you should make an appointment with your GP, podiatrist or nurse immediately. Do not try to treat injuries, corns or other foot problems yourself. Seek professional help. And never use corn removal plasters: they contain acid which can cause the skin to break down.

<b>Changes to nerves</b>	<b>Changes to blood supply</b>
Tingling or pins and needles	Cramp in your calves
Numbness	Shiny, smooth skin
Pain	Losing hair on your feet and legs
Sweating less	Thickened toenails
Feet may look red and feel hot to the touch	Cold, pale feet
Changes in the shape of your feet	Change in the colour of the skin on your feet
Hard skin	Wounds or sores
Losing sense of the position of your feet and legs	Pain in your feet

This chart is reproduced courtesy of the [Society of Chiropodists and Podiatrists](#).

## **What is an infection?**

An infection occurs when the body is unable to protect itself from micro-organisms (such as bacteria, viruses and fungi). If you have diabetes, you may be more likely to get an infection if your diabetes is poorly controlled or you have neuropathy. This is because you may not realise you have developed an infection until it is already widespread and harder to treat.



## **The signs of an infection on the skin are:**

<b>Colour</b>	White skin will usually be bright pink or red; brown or black skin may become darker
<b>Pain</b>	The infected area may throb and be very painful (though this may not be the case if you have neuropathy)
<b>Swelling</b>	The infected area may be puffy and appear swollen
<b>Movement</b>	The pain and swelling may mean that it becomes difficult to move the infected area (though this may not be the case if you have neuropathy)
<b>Temperature</b>	The infected area may feel hot to the touch
<b>Pus</b>	The area may be weeping a yellow/green matter called pus; this consists of dead cells and micro-organisms

If any of these signs are present, arrange an immediate appointment with your GP, diabetes nurse or podiatrist. If you cannot get an appointment for the same day, go to your nearest hospital Accident and Emergency department.

In the meantime:

- bathe your foot in a bowl of warm water
- cover the area with a sterile dressing (these are readily available from the local pharmacist and should be kept in the first-aid kit at home)
- try to take the pressure off the area
- make sure you wear suitable footwear and try not to do anything that might hurt or irritate your foot.

## **How do I get help to look after my feet?**

There are a number of ways to find help with footcare.

Your GP or practice nurse is usually the best place to start. S/he will give you advice and information or help you to make an appointment with one of the following:

- the podiatrist who works in the GP practice
- the community podiatry service
- the hospital podiatry service
- the local diabetes centre
- a registered podiatrist who works in private practice
- the diabetes specialist nurse.

All these services are free of charge, except if you choose to see a registered podiatrist who works in private practice.

### **Always seek help with your feet if:**

- you have had diabetes for many years and have never had your feet checked
- you find it difficult to check or care for your feet
- you have any questions about caring for your feet.

### **What can I expect at a foot examination?**

Your legs and feet should be examined every year by someone trained in foot examination. You will be asked to remove your stockings/socks and shoes and, if you wear trousers, you will be asked to roll up your trouser legs so that your legs, as well as your feet, can be examined.

You will probably be asked questions about your present and past medical health; do include any medication you are taking. If you are seeing a podiatrist you may wonder why s/he needs information which does not seem to apply to the feet directly. The most important reason for these questions is that the examiner needs to get a full picture of your health before they can recommend the best treatments for you.

## **You may also be asked questions such as:**

- do you have, or have you ever had, an ulcer?
- how do you look after your feet?
- do you have any pain?
- how often do you check your feet and what do you check for?
- how well are you managing your diabetes?

This is an important opportunity for you to ask questions and seek advice.

## **Tests**

The following tests will be carried out – and none of them cause any discomfort or pain.

### **Neuropathy testing**

The examiner will have a range of simple instruments to test for any numbness in your feet. Sensation will be checked with either gentle pressure to the underside of your toes and the ball of your foot using either finger touch or a fine plastic strand called a monofilament or vibration using a tuning fork. The examiner may also test your reflexes to discover if you can feel the difference between hot and cold on your skin.

### **Circulation testing**

The examiner will feel the pulses that you have in your feet and legs to check how well the blood is circulating to your feet. Equipment may be used to listen to the sound of the blood moving in the arteries of the legs and feet. Your blood pressure may be taken in the same way as the doctor or nurse does on your arm, only this time you may have the blood pressure taken in your legs.

## **Foot inspection**

Your feet will be checked for corns, calluses or changes in their shape. Your footwear will be checked to make sure it will not be the cause of any foot problems.

You will be told the result of the examination and whether you are [at risk of foot problems](#). If all is well you will be given general footcare advice until your next annual foot review. If you are at risk you will be referred to see a member of a foot protection team, who will treat any immediate problems and advise on the best ways to look after your feet and keep them healthy.

## **Caring for your feet when you're on holiday**

If you have good circulation and no problems with your feet, there is no need to take special precautions other than checking your feet each day and keeping them clean and dry.

If you are planning to buy new shoes for your holiday, buy them well in advance and wear them first at home to be sure that they fit well and are comfortable.

If you are holidaying where it is warm, be aware that sand and pavements might be hot. If you know you have any loss of sensation in your feet, avoid walking barefoot. Wear plastic sandals on the beach and in the sea.

Avoid sunburn: use a sunscreen with a high protection factor, and include your toes and the tops of your feet.

If you have circulation problems or numbness in your feet or legs, remember that long journeys on trains, buses and planes can make your feet swell. Walk up and down the aisle every half-an-hour – the exercise will help keep the

swelling down. To avoid your shoes becoming too tight, take a pair of comfortable shoes for the journey.

If your skin gets very dry, you may need to apply more moisturising cream than usual. Pay special attention to your heels, as dry skin here cracks easily. After swimming, dry your feet thoroughly, especially the area between your toes, to avoid athlete's foot.

Examine your feet for sores, swelling or colour changes. If any problems develop, visit a local registered podiatrist or doctor. Delaying treatment will make foot problems worse, so seek early treatment for all foot problems. Clean blisters, cuts or grazes by bathing your foot in warm water, then apply a sterile, dry dressing.

**During your contact with us, it is important that you are happy with your care and treatment. Please speak to a member of staff and/or the ward/department Sister/Charge Nurse if you have any questions or concerns.**

## **MATRON**

A Matron is also available during the hours of 9.00 to 5.00 pm Monday to Friday. During these periods, ward/department staff can contact Matron to arrange to meet with you. Out of hours, a Senior Nurse can be contacted via the ward/department to deal with any concerns you may have.

## **INFECTION CONTROL REQUEST**

Preventing infections is a crucial part of our patients' care. To ensure that our standards remain high our staff have regular infection prevention and control training and their practice is monitored in the workplace. We ask patients and visitors to assist us in preventing infections by cleaning their hands at regular intervals and informing staff of areas within the hospital that appear soiled.

As a patient there may be times that you are unsure whether a staff member has cleaned their hands; if in doubt please ask the staff member and they will be only too happy to put your mind at ease by cleaning their hands so that you can see them.

## **SPECIAL INSTRUCTIONS**

### **ANY CONDITION SPECIFIC DANGER SIGNALS TO LOOK OUT FOR:**

Swollen areas, changes in the colour of your skin or a slow healing wound.

### **CONTACT INFORMATION IF YOU ARE WORRIED ABOUT YOUR CONDITION**

- Your own GP –
- Community Podiatry Team – 01704 387220
- Vascular Nurse Specialist – 01704 705124
- Vascular Secretary – 01704 704665

### **OTHER USEFUL TELEPHONE NUMBERS/CONTACTS:**

NHS 111

Stop Smoking Helpline (Sefton) - 0300 100 1000

Stop Smoking Helpline (West Lancashire) - 0800 328 6297

**Please call 01704 704714 if you need  
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**Thank you**

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