

The Society of Chiropodists and Podiatrists

Diabetes and your feet

A guide to maintaining healthy feet for people with diabetes



The SOCIETY of
CHIROPODISTS
& PODIATRISTS

www.feetforlife.org



Diabetes and your feet

Many people with diabetes know that they have to take special care of their feet, but they perhaps don't know why. Understanding how and why foot problems develop will help you to take action to prevent them.

This booklet explains:

- **how diabetes can affect your feet**

and how you can:

- **prevent foot problems**
- **keep your skin and toenails in great condition**
- **look after your feet when you're on holiday**

By understanding how your feet can change with diabetes and by learning how to spot those changes, you can take positive action to keep your feet healthy.

This information is for anyone with type 1 or type 2 diabetes. It will also help you whether you have had diabetes for a few months or many years. Your family, friends or your carer may also find it useful.

The information in this booklet should not replace any information your health professional gives you. However, it can help you to understand what they tell you.

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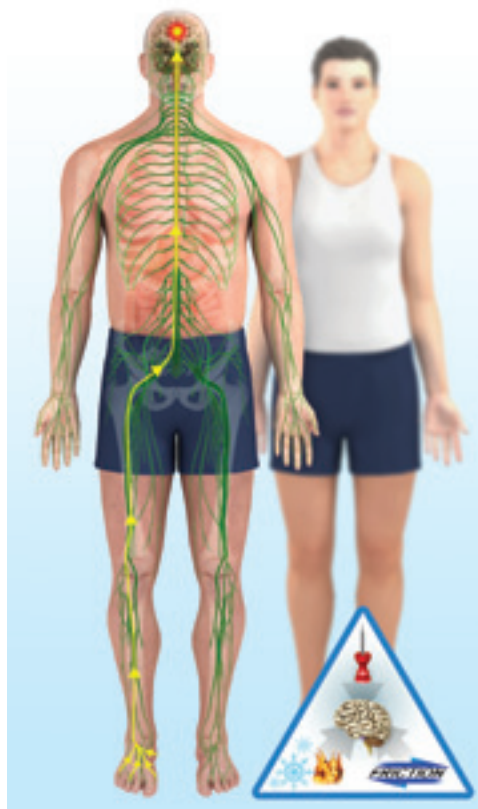
How can diabetes affect my feet?

Over a long period of time high blood glucose levels can cause damage to different areas of your body and this includes your feet and legs.

High blood glucose levels can cause damage to the nerve systems in your body, which stops important messages getting to and from your brain. The nerves in your body that are most likely to be affected are the longest ones – those that have to reach all the way to your feet and legs. Damage to your nerves is the thing most likely to affect your feet if you have diabetes.

Nerve damage is also sometimes called neuropathy. When it affects your feet it can lead to the following:

- **Damage to sensory nerves**
- **Damage to motor nerves**
- **Damage to autonomic nerves.**



Damage to sensory nerves, which means that you start to lose sensation in your feet and are less able to feel pain, temperatures and vibrations



Damage to motor nerves, which can affect the muscles in your feet causing toe joints and bones to change shape



Damage to autonomic nerves which can reduce the amount of sweat that your feet produce, which will make your skin very dry.



Blood vessels



The other important reason why some people with diabetes develop foot problems is because high blood glucose levels can also damage your blood vessels. This can affect the blood supply (circulation) to your feet and legs and may mean that less blood gets to your skin, muscles and tissues.

Foot note

Many people with diabetes believe that foot problems are caused by a poor blood supply, and therefore think that if their feet are warm and pink then they are healthy. In fact, foot problems are often caused as a result of damage to the nerves that supply your feet and legs. Because nerve damage often shows itself gradually you may not know that you are at risk of foot problems. So, even if you feet look healthy, it's important to check them regularly and to make sure your nerves are tested at your annual diabetes review.

What signs should I look for?

Because damage to the nerves and blood supply to your feet happens gradually, it's important to know what to look for and how to spot the signs of any change.

By checking your feet regularly you can spot the signs of any damage early. This means that you can get help quickly and can prevent the damage from getting any worse. There are a number of different things for you to look out for. These are the main ones.

Changes to nerves	Changes to blood supply
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

As well as the symptoms which you might spot yourself, your health professional will also be testing for changes to your feet. When you go to your annual diabetes review he or she will look for changes to your nerves and the blood supply as well as checking the shape and condition of your feet.

Foot note

If you see or feel any of these changes when you are checking your feet it's important to get advice. Make an appointment to see your podiatrist, nurse or doctor. Don't put it off - the sooner you get help, the fewer problems you are likely to have.

Changes to nerves

Tingling or pins and needles in your feet or lower legs. This feeling is usually there all the time. It can be mild or more severe, for example, it can be uncomfortable enough to give you trouble sleeping.

Numbness. You could start to lose the sensation and feeling in your feet and legs. This means that you may not be able to feel pain or hot and cold, which also means that you may not notice small injuries like cuts, burns or blisters.

Pain. Although you might not be able to feel some kinds of pain, for example when your shoes rub, nerve damage can sometimes cause you to feel a constant pain in your feet and legs. This can be severe. You might have shooting pains or feel like your feet are burning. Your skin can also feel very sensitive, so that clothes or sheets feel unpleasant if they touch you.

Sweating less. Your feet may sweat less than you would normally expect. This can cause dry skin which can be a problem as it can easily become cracked and sore.

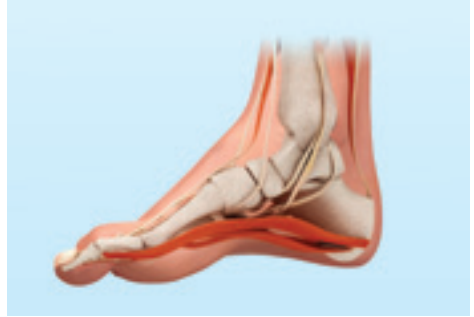
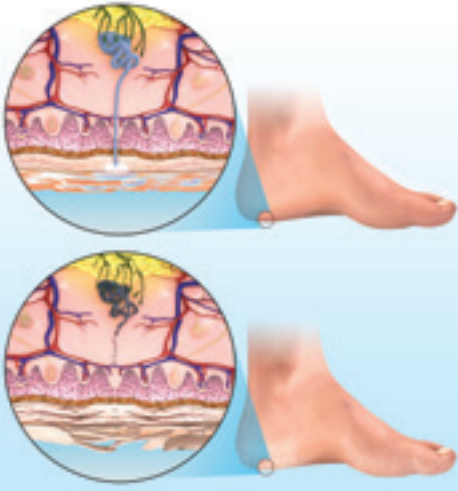
Losing sense of the position of your feet and legs. You may not be able to sense where your feet or legs are in relation to the rest of you, or what they are doing. When this sense starts to fail you may find that you start to walk in a different way, or have trouble balancing.



Changes to nerves can result in numbness in the feet or lower legs, tingling and pins and needles.



The skin on your feet may look red and feel hot to the touch.



Changes in the shape of your feet. Because nerve damage can affect the messages sent to your muscles, which help to control how you move, your feet might change shape. The arch of your foot can drop and your toes can start to curl under.

Sweating less. Your feet may sweat less than you would normally expect. This can cause dry skin which can be a problem as it can easily become cracked and sore.



Hard skin. Because you have less feeling you may not know when you're putting extra pressure on your feet or when you have walked too much. Where there is extra or constant pressure on your feet, hard skin builds up. This is sometimes called callus.



Changes to blood supply

Cramp in your calves when you walk, which goes when you rest. You may also have pain in your thighs or buttocks.



- Shiny, smooth skin.
- Losing hair on your feet and legs.
- Thickened toenails.
- Cold, pale feet.
- Any change in the colour of the skin on your feet, for example, red, purple, blue or paler skin.

Wounds or sores that take a long time to heal.



Pain in your feet when you put them up – for example, when you go to bed at night. You may have a burning type of pain in the arch or ball of your foot or in your toes which gets better when you lower your feet down such as when you dangle your feet out of bed.

What do these changes mean for me?

Damage to the nerves and blood supply to your feet makes it more likely that you will develop foot problems. This is because nerve damage and poor circulation can change the shape of your feet, the sensations you are able to feel and the condition of your skin. To find out if you could be at risk of developing foot problems ask yourself these questions:

- **Can I feel the things I used to?**

Nerve damage means that you may not notice if you step on something sharp, develop a blister or cut yourself, because you may not feel any pain. If you can't feel heat or cold you could burn yourself without knowing, or let your feet become very cold.

- **Am I walking in a different way?**

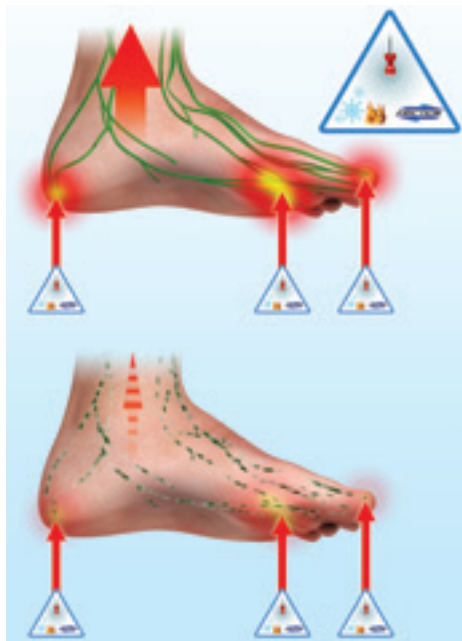
You might walk in a different way than you normally would because of changes to the nerves that send messages to the muscles in your feet. These changes can increase the pressure on different areas of your foot, which can lead to the development of hard skin.

- **Is my skin drier than usual?**

You could develop very dry skin because you're not sweating as much as usual. Very dry skin can become cracked, which makes an infection more likely.

- **Have my feet changed shape?**

You might develop different shaped feet. If the arch of your foot drops or your toes curl under you will start to put pressure on different parts of your foot. This pressure can cause a build up of hard skin.



Nerve damage and poor circulation can change the shape of your feet, the sensations you are able to feel and the condition of your skin.

- **Am I healing as well as usual?**

A poor blood supply to your feet means that any injuries won't heal as quickly as you would expect them to. This means that any wounds like cuts and blisters can become infected.

If you answered 'yes' to any of these questions, talk to your podiatrist, nurse or doctor for information and advice.

What changes to my feet am I checking for?

There are two main ways that foot problems can start – because of an injury like a cut, or a blister caused by shoes rubbing or because of hard skin. Check your feet for:

- **Any damage to your skin**, like a cut, blister, burn or scald. These injuries can take a long time to heal if you have diabetes and sometimes these wounds can become infected. Occasionally an infection can become serious.
- **Hard skin**. This builds up on the parts of your feet where there is a lot of pressure or repeated pressure, for example where your shoes or socks rub on your skin. If an area of hard skin builds up, then the pressure on the skin under it starts to increase. This causes damage to the tissues underneath. Eventually this pressure can cause a wound to form under the hard skin.

Any area of skin on your feet and toes could potentially become damaged but there are some places where your skin is more at risk.



These are areas to keep a close eye on when you check your feet:

- **The ball of your foot** (the underneath of your foot just below your toes). This is an area where your skin is under a lot of pressure, because when you walk much of your weight is on the ball of your foot.
- **Any areas where your bones might stick out** - for example if you have a bunion or hammer toes. Your skin can become damaged on the areas that stick out if your shoes don't fit well.
- **Places on your feet where shoes or socks might rub**. When you walk your shoes and socks can rub backwards and forwards over your skin which creates forces, like friction. These forces cause your skin to become pulled and stretched, which damages the blood supply and your skin.

What can I do to prevent foot problems?

Although there are health professionals who can help you to keep your feet healthy and deal with any problems, you will be the one looking after your feet day to day. Preventing foot problems in the future is about being positive and active now, rather than acting only when there is a problem.

Preventing problems starts with managing your diabetes well, leading a healthy lifestyle and keeping your blood glucose levels well controlled. By doing this you can prevent or slow down any changes to the nerves and blood vessels that supply your feet and legs.

Also important is good, regular foot care, which means taking care of your feet everyday and taking steps to prevent damage to your skin. This means preventing the build up of hard skin and protecting your feet from injury. Washing and moisturising your feet every day will keep the skin supple and healthy, checking them daily will help you to spot any injury or skin damage quickly.

It's also important to know when and where to seek help if you do have a problem. Find out what you need to do if you see a problem starting and which health professionals in your area can help you to take care of your feet.



Why is preventing foot problems so important?

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

An ulcer is a wound or sore that takes a long time to heal. This kind of wound starts as a break in the skin which gets worse instead of better. The skin around an ulcer may look red or darker than normal. You may also be able to see some of the tissues underneath the top layer of skin. If the wound becomes infected then the skin may be swollen and you may have some fluid coming from it.



If you think you have an ulcer it is important to see your doctor straightaway. They can be serious but many can be treated successfully.

In very extreme cases if an infection doesn't get better your doctor may suggest an operation to remove the infected toe or foot. This only happens in the most severe cases of infection and is a last resort. This kind of surgery is a frightening thing to think about and it's natural to be worried. However, there are many things you can do to prevent foot ulcers from developing.

Foot note

Although foot ulcers can be very serious they aren't inevitable and can be prevented. By looking after your skin, checking your feet regularly and getting help quickly if you spot a problem, you can prevent minor problems from becoming more serious.

What can I do now?



Looking after your feet is something that's best done every day. But it's something which doesn't take long – in fact just a few minutes every day can be enough to help prevent serious problems in the future. Here are the key things you can do to look after your feet:

- **Develop your own daily foot care routine.** This means washing and moisturising your feet and checking them for injuries or changes to your skin.
- **Wear the right shoes and socks.** Many foot problems are caused by footwear that doesn't fit properly. Choose well fitting shoes that protect and support your feet and never go barefoot.
- **Take care of your feet.** Get nail or skin problems treated quickly and look after your toenails.
- **If you see a problems starting,** take action quickly. Learn how to take care of injuries and know when and where to get help if a problem is more serious.



How do I look after my feet?

Try building foot care into your routine when you get up or before you go to bed. If you have a bath or shower every day then that's an ideal time to add in your foot care. There are three steps to your routine:

3 steps, 3 minutes

1. **Check** your feet
2. **Wash** them with warm water and soap
3. **Moisturise**

Foot note

If any small wound has not started to heal more than two days after an injury then you should see your podiatrist, nurse or doctor straightaway. If you have damage to your nerves or the blood supply to your feet then you shouldn't wait, but instead see your doctor as soon as you can, however small the injury may be.



Step 1: Check your feet

You're looking for any changes from yesterday as well as the previous days and weeks. Check for:

- swelling
- redness
- any other change in the colour of your skin – for example, pale, bruised or purple skin
- injuries like blisters or cuts
- fluid coming from any wound
- pain - especially if you usually have little or no feeling in your feet

If you find it difficult to bend down or lift your feet up to check properly then use a mirror. Put it on the floor so you can see the soles of your feet. Or ask someone else to look for you - your partner or carer for example.

Small injuries like cuts and grazes can often be looked after by you at home. Clean the injury and put on some antiseptic cream and a dry, sterile dressing. Check the injury regularly and if you see signs that it is infected (redness, swelling or fluid coming from the wound) see your GP straightaway.

If you spot any other changes to your feet that last for more than two days, see your GP.



Step 2: Wash your feet with warm water and soap

Check the temperature of any water before you put your feet in it, to make sure it's not too hot. You can do this by dipping your elbow or hand in.

Use a mild normal soap or cleanser to clean your feet. Don't soak your feet, for example don't spend too long soaking in the bath. Soaking makes your skin soggy which means it can be easily damaged.



Step 3: Use a moisturiser

Ask your pharmacist for a moisturiser that you can use for dry skin. There are moisturising creams available just for the skin on your feet.

Use the moisturiser after you have dried your feet and rub it into the main parts of your foot, both underneath and on top, to keep the skin on your feet supple. Don't use it between your toes as it will make your skin there moist, which could make an infection like athlete's foot more likely. If you use talc, only use a small amount as it can become clogged up, which increases your chances of developing an infection.



Dry your feet well, taking care to dry well between your toes. Drying your skin well will help prevent infections like athlete's foot from starting. It's also important to make sure your feet are properly dry after you have been swimming.

That's it. That's your basic daily foot care routine.

Of course, as well as helping to prevent foot problems, this skin care routine will help you to keep your feet in top condition, with supple and healthy skin and feet that not only look good but feel great!

How do I get started?

You may not have looked after your feet in this way before so you might need to remind yourself to check your feet every day and develop a regular routine. This is something you might find difficult because it's not something you have done automatically before, like you would clean your teeth every day for example. These tips may help you:

- **Choose when and where you're going to check your feet each day.** This could be in your bedroom when you get up, or in the bathroom, after a shower, for example. Try to check your feet at this time and in this place every day.
- **At first you may find it difficult to remember to check your feet,** but if you do your check in the same place and at the same time every day, over time it will become easier. You will soon find yourself doing it automatically, without having to give it any thought.
- **If you do find it difficult to remember to check your feet,** use reminders, for example set a reminder on your mobile phone or stick a note on the bathroom mirror.



How do I look after my toenails?

To cut, or not to cut?

If you can reach them, and see well enough to be able to cut them, then there is no reason why you can't cut your own toenails. However, if you have damage to the nerves or blood supply to your feet, don't attempt to cut them yourself, unless you have been shown how to, by a podiatrist or nurse for example. A podiatrist (also called a chiropodist) is a foot specialist trained to treat people who have diabetes, as well as other medical conditions.

If you're taking care of your own nails then cut them when they have grown to just beyond the end of your toes. This is usually about every six to eight weeks. Use a good pair of nail clippers and an emery board. You can get these from your pharmacy.

Trim your nails following the shape of your toe and use the emery board to take off rough edges. Cutting down the sides of nails or cutting them very short can damage them.



Don't use anything sharp to clean down the side and edges of nails because this can damage the nail or cause an ingrown toenail.

Nail problems

If you have an ingrown toenail or you think you have a nail infection (easily broken, thick or discoloured nails), don't try treating it yourself. Make an appointment to see your podiatrist, nurse or doctor.

If you have any trouble looking after your nails, for example if you can't reach them, then see your doctor or nurse to arrange for some help.

Can I have beauty treatments?

If you want to pamper your feet by getting a pedicure or using a foot spa then the following information may help:

- **You can wear nail varnish on your toenails.**

However if you wear it all the time you might not see any problems with your nails or a nail infection. So, take off and reapply your nail varnish regularly so that you can check your nails. Have periods of time when you don't wear nail varnish at all.

- **You can also have a pedicure** but make sure that you go to someone who is well qualified and who knows how to use beauty treatments on someone who has diabetes. Tell your beauty therapist that you have diabetes when you make the appointment.

- **Many people with diabetes can also use foot spas with care.** Check the temperature of the water to make sure it's not too hot before you put your feet in. However, if you have been told by your podiatrist, nurse or doctor that you have nerve damage to your feet then don't use foot spas at all.

Having a tattoo on your feet can potentially be very harmful if you have diabetes. This is because tattoos will damage your skin which can lead to an infection.



Do I need to do anything special when I'm on holiday?

If you usually have no problems with your feet then there is nothing very different you need to do when you're on holiday. However, a bit of planning before-hand and few sensible precautions can help you to enjoy your holiday and prevent any problems with your feet.

- **If you're travelling for long periods of time**, keep your feet and legs moving. Sitting for a long time can make your feet swell, which will make your shoes tight and may cause them to rub. Get up and walk around as often as you can to keep your leg muscles working.
- **Make sure** you have your usual moisturiser packed and take a high factor sunscreen if you need it.
- **Take shoes with you that you have worn before** and that fit your feet comfortably. Don't take new unworn shoes.
- **If you're going on a beach holiday** pack shoes that you can wear on the sand or in the sea, for example shoes which you don't mind getting wet.
- **Pack a small first aid kit** which will help you to treat any small injuries on your feet. If you're visiting a country where there are mosquitoes or other insects that may bite, take insect repellent with you as well.

Holiday first aid kit

- Plasters
- Sterile dressings and tape
- Antiseptic cream
- Cream for bites and stings

- **Keep up your daily foot care routine** when you're on holiday. If you're somewhere hot or very cold you may need to use more moisturiser, as your skin could be drier than usual.
- **Wear shoes all the time.** The sand on the beach, the tiles by the pool and pavements can all get very hot in the sun and could burn the soles of your feet if you go barefoot. Shoes can also prevent injuries from sharp objects hidden in the sand on the beach and on the sea floor, especially if the sea floor is uneven or rocky. You can buy plastic shoes that will protect your feet and which won't be damaged by salt water.
- **If you do injure your feet get help and treatment straight away**, don't wait until you get home. As soon as you notice an injury, clean it and put on antiseptic cream and a dry dressing. Try to keep your weight off the injury as much as you can.

Holiday feet

- Exercise your feet and legs on the journey
- Wear shoes all the time, even on the beach or in the sea
- Keep up your daily foot care routine
- If you damage your skin get help straightaway – don't wait until you get home

What other help can I get to look after my feet?

Everyone who has diabetes should have their feet checked regularly and at least at their annual review. A healthcare professional that has been specially trained to look after people with diabetes will do the check up with you. This could be your podiatrist*, nurse or doctor.

By always going to your appointments you will be able to find out about any problems early and can get advice on foot care, shoes and any problems you may be having. Even if you think a problem may be small or not worth worrying about, always tell your health professional if you notice any changes to your feet.

If you need help in between your annual reviews, make an appointment with the person who usually looks after your diabetes care. He or she can help you to make an appointment with a podiatrist.

How to contact a podiatrist

The person who usually looks after your diabetes care can help you to make an appointment with a podiatrist. You can also make an appointment to see a podiatrist privately without going to your GP but make sure they are registered by the Health Professions Council (HPC) and are a member of The Society of Chiropodists and Podiatrists. If you decide to seek a private podiatrist you can use the following link on the Society's website <http://www.feetforlife.org/cgi-site/chiropodist.cgi> or look at the front of the chiropodists and podiatrists section in Yellow Pages for The Society of Chiropodists and Podiatrists listing.

If you can't reach your feet or see them properly, and have no one at home who can help you with day to day foot care, then your doctor or nurse will arrange for you to have help.



By understanding how your diabetes can affect your feet and by developing your own foot care routine you will be able to manage your foot care with confidence. You will be taking a positive and active step towards having healthy feet for life.

If you have diabetes then it's time to take notice of your feet!

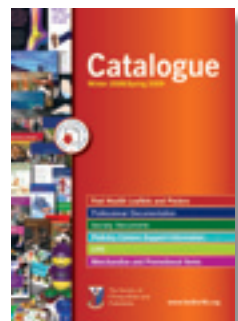
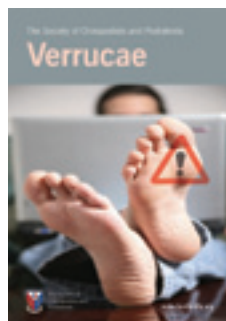
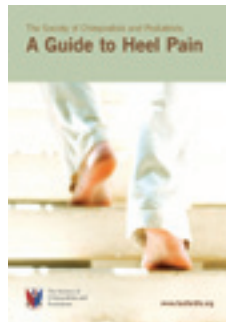
This simple, quick and easy foot care routine can help you to keep your feet in great condition. By looking after your skin, taking a few simple precautions and by planning ahead you can help to prevent foot problems in the years to come.

Take the first step towards healthy feet for life and put your feet first!

* The term podiatrist and chiropodist can be used interchangeably

Further foot health information

The Society of Chiropodists and Podiatrists provides a number of foot health information leaflets for you to either download from www.feetforlife.org, or send for a copy from the address on page 24.



Useful contacts

Diabetes UK

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A UK Charity for people with Diabetes

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The educational information in this leaflet has been kindly written though a programme led by podiatrist Judith Anders MChS with the help from people with diabetes and health professionals who specialise in foot care and diabetes.

With the compliments of:

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