

THIS IS JUST ONE OF OUR SERIES OF HANDY DOWNLOADABLE LEAFLETS - LEGS MATTER OFFER A WEALTH OF EVIDENCED-BASED INFORMATION AND KNOWLEDGE AROUND THE HEALTH ADVICE ON LEG AND FOOT PROBLEMS.

THIS LEAFLET IS TALKING ABOUT:

# Diabetes foot ulcers

An ulcer is a wound or sore that hasn't healed within two weeks. There are several types of ulcers you can experience on your legs or feet. A diabetic foot ulcer is an open wound or sore found on the foot that's slow to heal on someone with diabetes

## WHAT'S COVERED?

- Overview
- Symptoms
- Causes
- Diagnosis
- Treatment
- Prevention
- Outlook
- Harm
- Resources





# Let's talk about diabetic foot ulcers

## Overview – diabetes/diabetic foot ulcers are found on the foot

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We all get wounds on our feet, sometimes from shoes that have rubbed or by injuring our feet in some other way.

If you know you have diabetes and you have a wound on your foot, then you should seek advice from your healthcare professional urgently (ie within 1 day). If your wound is taking longer to heal or there are no signs of healing, it might be a sign of an underlying problem that needs investigating further.

If you have a non-healing wound on your foot, it is possible this may be caused by peripheral arterial disease (poor circulation), which is a known complication of diabetes and heart disease.

Diabetes can also cause loss of sensation (neuropathy) so you may not notice when you injure your feet as you can not feel pain. Skin damage to the feet, resulting in a wound, can also be caused by trauma or friction.

Less commonly, wounds on the feet can also be caused by venous disease or rarer causes of ulceration such as skin cancers.

## Symptoms – what are the typical symptoms of diabetes foot ulcers?

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People with diabetes may not feel the symptoms (pain) of foot ulceration due to any neuropathy that may be present. As a result, people with foot ulcers associated with diabetes may feel generally unwell (flu-like symptoms, fever, chills, nausea) before they realise that there is a problem. Infection is common across all types of ulceration, often spreading rapidly through the foot resulting in major tissue destruction.

The signs of a red (although this may not be present in pigmented skins), hot, swollen foot should not be overlooked as the progression from an initial minor injury to unsalvageable tissue damage or gangrene can take as little as 48 hours.



## Look - What do diabetes foot ulcers look like?

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Examples of heel cracks and the beginnings of a foot ulcer.

## Causes what can cause diabetes/diabetic foot ulcers?

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### Peripheral arterial disease

Reduced blood flow to the foot means the skin can become thinner and weaker, and more prone to damage from rubbing or friction. Any break in the skin can then develop into an ulcer. One cause of poor healing in the lower leg is when not enough blood is getting to our feet. Blood travels from our heart to our feet through our arteries. If our arteries become too narrow, our skin will not get enough blood to allow the wound to heal as normal.

Arteries can become 'furred' up by the build-up of fibrous and fatty material inside the arteries (atherosclerosis). Atherosclerosis is the underlying condition that causes heart disease such as heart attacks and strokes as well as affecting the arteries that supply the legs. This is called peripheral arterial disease.

You can read more about peripheral arterial disease on NHS Choices and on the British Heart Foundation website.

### Diabetes

Peripheral arterial disease is a known complication of diabetes. You can read more about peripheral arterial disease and diabetes on NHS Choices and on the Diabetes UK website.

Diabetes can also cause loss of sensation (neuropathy) so you may not notice when you injure your foot because you cannot feel the pain.

# Diagnosis – getting diagnosed with a diabetes foot ulcer

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## Self care

If you have diabetes, self checks may identify problems with your feet – consider the ACT NOW acronym, which was devised by IDEAL Diabetes with direct input from people with diabetes. This may help you to identify the warning signs that may result in ulceration and help you know when to seek a referral to specialist care.

- Accident
- Change
- Temperature
- New pain
- Oozing
- Wound

## Making an appointment

If you have a wound on your foot that is not healing, make an appointment at your GP practice or with a podiatrist. You may be given an appointment to see the nurse rather than the doctor as they (and podiatrists) are often responsible for caring for patients with leg and foot problems.

If you know you have diabetes and you have a wound on your foot, then you should seek advice from your healthcare professional urgently (ie within 1 day). Make sure you remove any nail polish from your toenails before your appointment.

## When you see the nurse, podiatrist or doctor, they should:

- Ask about your symptoms and how long you have had problems
- Examine your lower legs and feet
- Check your circulation by palpating your pulses, listening to your pulses with a Doppler. They may also take pressures around your arm, ankle and toe. This test compares blood flow to find out if there are circulation problems in your lower leg. You may have to come back to have your Doppler test on another day or at another clinic but if this test is required, you should have this test within a few weeks of your first appointment
- Test whether you have any loss of sensation in your feet

You might also be offered some more tests to rule out other health problems that can affect your legs and feet, including diabetes, anaemia, thyroid, kidney and cholesterol problems.

If your GP practice thinks you have problems with your arteries, they may refer you for further vascular tests at your local hospital or specialist clinic for opinion and intervention regarding blood supply to the legs and/or feet.

## What to expect at your appointment

Most people with a non-healing foot wound need to be urgently referred to a podiatrist who will act as the gatekeeper to the wider multidisciplinary team.

## You should have an initial assessment that includes an examination of both feet to look for evidence of:

- Neuropathy – use a 10g monofilament as part of a foot sensory examination
- Assessment of circulation to review limb ischaemia (see the NICE guideline on lower limb peripheral arterial disease)
- Ulceration
- Callus
- Infection and / or inflammation
- Deformity
- Gangrene
- Charcot arthropathy
- Medication such as Amlodopine, Hydroxyurea, Nicorandil to treat
- Schleroderma
- Venous disease and Atrophie Blanche in particular

## If you need to have further assessment, this should include:

- Doppler assessment of ankle brachial pressure index and / or toe pressures
- X-rays or other scans to determine any deep tissue (e.g. bone) involvement
- Microbial culture
- Gait analysis which includes looking at the way you walk
- Pressure mapping

# Treatment – how do you treat a diabetes/diabetic foot ulcer?

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It is important to see your GP / Practice Nurse / District Nurse as soon as possible to get an assessment, diagnosis and have a compression garment prescribed.

## Referral options for diabetes foot ulcers

You should be referred to a specialist podiatrist and / or vascular service to look into why your diabetes foot ulcer is not healing. Treatment should include these six main components for any foot-related wound to optimise the chance of wound healing:

- Management of the underlying condition or cause eg control of diabetes, optimising blood flow, management of the oedema etc
- Debridement of the wound. This is the removal of material from within and around the wound such as slough, biofilm and callus which can impede wound healing
- Good management of wound symptoms through appropriate dressing selection or adjunctive therapies.

- Managing infection and bioburden and prevent
- Offloading or deflecting pressure away from the wound. This may involve shoe adaptations, inserts and often casted devices are required.
- Compression therapy where peripheral arterial disease has been excluded. This may include the need for toe garments

### Appropriate footwear and podiatry visits

If you have suffered a chronic foot wound, you should be placed into a protective foot care programme. It's also important that you have regular podiatry visits, footwear and orthotic reviews and that the risk factors such as diabetes are kept under control.

If you have diabetes or peripheral arterial disease and a foot wound, you are at increased risk of cardiovascular incidents such as stroke and heart attack and should have your cardio-vascular risks modified.

## Prevention – how to prevent a diabetes/diabetic foot ulcer occurring or reoccurring

### There are lots of things you can do to help prevent diabetes foot ulcers:

- Ensure you have an annual foot screening in primary care
- Daily self checks by yourself
- Obtain footwear advice
- Maintain a healthy lifestyle
- No smoking
- Optimise blood sugars
- Attend all screening appointments
- Utilise the ACT NOW foot assessment tool and resources to detect any foot problems early and avoid delays in seeking specialist advice and treatment
- Do not delay
- Take all medications as prescribed

## Outlook – when you have a diabetes / diabetic foot ulcer

Foot ulcers can affect 15–25% of people with diabetes at some point during their life time. If you delay in seeking specialist treatment, this can lead to an increase in poor outcomes:

- Infection
- Amputation
- Disability

There is always a risk of recurrence of a foot problem once a person has had an initial ulcer, so there is a need for ongoing vigilance.

Foot ulcers do not just affect feet, they can have an impact on your overall health and they may, in some people, lead to a shortening of life.

**Diabetic foot wounds have a particularly high recurrence rate of around 40% at one year and up to 75% by year five. It is therefore more helpful to think of a diabetes foot ulcer as being in 'remission' rather than 'healed'**

## Harm – the risk factors

### Inaction or insufficient action on diabetic foot ulcers can cause harm. This includes:

- Not checking legs or feet properly or doing basic checks, such as attending podiatry appointments or annual foot screening
- Not performing a vascular and neurological assessment to determine the ulcer risk
- Not using adequate footwear
- Not being referred to multidisciplinary diabetes foot services for specialist podiatry intervention if required
- Not receiving or taking antibiotics as prescribed
- Not optimising blood sugars

**If you have any concerns about the treatment or care you are receiving, it is important to speak up.**



## Resources – for diabetes/ diabetic foot ulcers

- [ACT NOW foot assessment tool](#) (Web page)
- [Diabetes UK: Putting Feet First campaign](#) (Web page)
- [Touch the Toes Test to test for sensation in the feet](#) (PDF download)
- [DESMOND](#), self-management education programme for people with Type 2 diabetes (Web page)

- The NHS and its partner Diabetes UK are delivering a new programme which provides a low calorie, total diet replacement treatment for people who are living with type 2 diabetes and obesity or overweight: [the NHS Type 2 Diabetes Path to Remission Programme](#) (Web page)
- [Top tips for foot care](#) (PDF download)
- [Tips on choosing the right footwear](#) (Web page)

## Clinical guidelines – for foot ulcers

- [NICE Peripheral Arterial Disease Diagnosis and management](#) (Web page)
- [NICE Guidelines for the prevention and management of the Diabetic foot](#) (Web page)
- [Scottish intercollegiate guidelines on diabetes](#) (PDF download)
- [Best practice guidelines. Wound management of diabetic foot ulcers](#) (PDF download)
- [Local management of diabetic foot ulcers](#) (PDF download)

## Research

- The [Cochrane Library](#) publishes systematic reviews about the effectiveness of many treatments for diabetic foot ulcers and summarises this in a useful
- ['Evidently Cochrane' paper](#) (Web page)

## Find out more – some organisations you can contact for further information

### Accelerate

Based in East London, Accelerate can accept national referrals from your GP/specialist to our world-class centre where we pioneer and trial experimental new treatments for chronic leg ulcers/wounds, lymphoedema and mobility challenges.

#### Contact details

020 3819 6022  
[hello@acceleratecic.com](mailto:hello@acceleratecic.com)  
 Find out more at [acceleratecic.org](http://acceleratecic.org)

### Royal College of Podiatry

The Royal College of Podiatry exists to ensure the public has access to high quality foot care delivered by qualified and regulated professionals.

#### Contact details

020 7234 8620  
[reception@rcpod.org](mailto:reception@rcpod.org)  
 Find out at [rcpod.org.uk](http://rcpod.org.uk)

### Diabetes UK

Diabetes UK are the leading UK charity for people affected by diabetes it's their responsibility to lead the fight against the growing crisis. And this fight is one that involves all everyone – sharing knowledge and taking diabetes on together.

#### Contact details

0345 123 2399  
[helpline@diabetes.org.uk](mailto:helpline@diabetes.org.uk)  
 Find out more at [diabetes.org.uk](http://diabetes.org.uk)

The Legs Matter coalition is working together to increase awareness, understanding and prevent harm for lower leg and foot conditions

Help us spread the word about the #hiddenharmcrisis and we can all act to help tackle it.

You can help by following us on social media and sharing, reposting, liking and commenting - we are active on X, Facebook, LinkedIn and Instagram.

You can sign up for our newsletter at [legsmatter.org](http://legsmatter.org) and get all the latest information about our activities.



IN RECOGNITION OF OUR PLATINUM PARTNERS



IN RECOGNITION OF OUR GOLD PARTNERS

