

Diabetes – The Charcot Foot

Diabetes Advice and Information Leaflet

Aim of the leaflet

This leaflet is aimed at people who have diabetes and have been diagnosed with (or are suspected to have) a condition called Active Charcot Foot Syndrome (commonly known as Charcot foot).

What is Charcot foot?

It is a problem which can affect the foot in people with neuropathy (nerve damage with numbness). The bones of the foot become very fragile and can start to break or dislocate in response to very minor forces – even in response to the forces which occur with standing or walking.

The commonest cause of the Charcot foot is diabetes, but it can occur in people who have a different cause of nerve damage. It is rare – and affects only about 1% of people with neuropathy in diabetes. However, when it occurs, it can lead to gross deformity or ulceration of the foot. It may even result in amputation of the lower part of the leg.

How will I know if I've got Charcot foot?

The early signs of Charcot foot are inflammation (swelling, heat and redness) in the affected area of the foot or ankle. These symptoms are often mistaken for infection. Sometimes it is brought on by a minor injury (such as tripping over something), or recent foot surgery, but it often just starts for no obvious reason. There may be some aching discomfort, or it may be painless (because of nerve damage). In most cases only one foot is affected. However, in some rare cases people can develop Charcot foot in both feet. Your foot may become deformed if you do not get appropriate treatment early enough and you continue to walk on it.

Unfortunately, many doctor and Emergency departments are unaware of Charcot foot and it is often diagnosed as an infection or ankle sprain.



The acute Charcot foot starts with an episode of inflammation which may look like a sprain or an infection



The chronic Charcot foot – a 'rocker bottom' foot caused by dislocation and the fracture of bones in the midfoot

Who will look after my foot?

Ideally, the Charcot foot should be managed by a specialist diabetes foot service. This service usually consists of a group of podiatrists, orthotist, nurses, plaster nurses and consultants who specialise in treating diabetes related foot problems.

How is it diagnosed?

The diabetes foot clinic will examine your foot, and may carry out some simple non-invasive tests, such as temperature and neuropathy testing.

You will be asked to have an X-Ray of the affected foot (if your GP hasn't already done so). This is the best way to see if there are any bony changes to the foot.

If there are no obvious changes on the X-ray, you may be asked to have an MRI (Magnetic Resonance Imaging) scan. This will show areas of inflammation within the bone, which is the earliest sign of the condition.

What is the treatment for Charcot Foot?

The aim of treating the Charcot foot is to prevent foot deformity whilst the inflammation settles. If there has already been some change to the shape of the foot, this is not reversible, but the aim would be to prevent any further deformity.

The most important thing you can do is rest. Immobilising (taking the weight off the foot) is the best way to help the inflammation settle and prevent deformity.

What will the treatment consist of?

The only effective treatment is to reduce the weight on the foot and ankle and prevent it from moving until the inflammation has settled. This is normally done with some form of cast (in the same way as if you had broken a bone). The cast allows you to do minimal weight bearing, but prevents putting too much pressure on your foot.

Treatment options:

- Non-removable lightweight fibre-glass cast of the lower limb (to the knee).
- Removable lightweight fibre-glass cast (can be taken off in bed or for shower).
- Removable cast walker with prescription insole

The non-removable cast is the preferred treatment for Charcot foot, as it is the best way to offload and immobilise the foot, however it is not suitable for everyone.

The removable casts do not support the foot as well as the non-removable cast, however when worn, they can still be effective at offloading the foot.

What other treatment will I get?

You will have regular appointments with the diabetes foot team to monitor your foot and change the cast. These will normally be every 1-2 weeks, but may vary according to individual needs.

At these appointments, the team will regularly check the temperature of your foot (and compare it to the other foot), as this lets us know if the inflammation is settling. If wearing a non-removable cast, the cast will be removed prior and you will then have a new cast applied.

You may be asked to have a follow-up X-Ray at some appointments if further damage is suspected. This will be done without the cast, so you will have the cast removed, taken to X-Ray and then have the cast replaced.

Infection of the Charcot foot is common. Because of the neuropathy unrecognised skin lesions and trauma with or without deformity can lead to ulceration with consecutive infection . You may receive antibiotic to treat the infection. The antibiotics could be given orally or via injection and length of treatment would depend on site and severity of the infection.

Does it get better?

Yes. But it can take a long time. No-one knows what causes the Charcot foot, but it is a condition which persists for several months (sometimes a year or more) before it eventually settles, and the bones regain their strength.

If the foot has changed shape, you may need prescription footwear from an orthotist. This is because the changed shape will cause added pressure on the skin which overlies any bony prominences. This pressure will lead to a build of hard skin (called "callus"), which can break down and form an ulcer.

How long does the treatment take?

This is a very difficult question to answer, as everyone's treatment takes different lengths of time. It can vary according to method of cast used, and how much rest you can have. What we do know is that the average length of time in a cast in the UK is 9 months.

Will it come back again?

Charcot foot sometimes flares up again within in a year or so of apparent healing, but this may be because it was never properly healed in the first place. On the other hand, the process may affect the other foot, and is thought to do in about 30% of cases.

How can I help my condition?

You should follow the medical advice you are given. You will need to keep your weight off your foot as much as possible, as Charcot foot can be very disabling if it is not treated appropriately.

The following advice will help you to manage your condition.

- ◆ Keep your diabetes under control by following the advice you have been given in the past.
- ◆ Keep checking your other foot as there will be more pressure on it and this could cause a further problem
- ◆ Contact a member of the specialist diabetes service if you notice any change or are worried about your treatment in any way.
- ◆ Your specialist diabetes foot service is here to support you, help you manage your Charcot foot, offer advice and answer any questions you may have

Contact details for help and advice

Community Podiatry Clinics
Carlisle Locality - Telephone: 01228 608020 Podiatry Service, North Carlisle Medical Centre, Eden Street, Carlisle, CA3 9JZ
Eden Locality - Telephone: 01768 245628 Podiatry Service, Penrith Health Centre, Penrith, CA11 8HW.
Allerdale Locality - Telephone: 01900 705120 Podiatry Service, Workington Community Hospital, Park Lane, Workington, CA14 2RW.
Copeland Locality - Telephone: 01946 68635 Podiatry Service, Flatt Walks Health Centre, Castle Meadows, Whitehaven CA28 7QE
General Practitioner, Nurse Practitioner or Practice Nurse
Contact the GP surgery you are registered with.
Multidisciplinary Diabetic Foot Clinic (MDFT)
Clinics are provided at West Cumberland Hospital, Whitehaven and the Cumberland Infirmary, Carlisle Postal address: Diabetes Centre, Cumberland Infirmary, Newtown Rd, Carlisle, CA2 7HY Telephone - 01946 68599 (answer service, monitored between the hours Monday – Friday 9am until 4pm)
NHS Out of Hours Services
Please telephone 111
Accident and Emergency at Cumberland Infirmary or West Cumberland Hospital

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