

Diabetic foot :

A **diabetic foot** is a foot that exhibits any pathology that results directly from diabetes mellitus or any long-term (or "chronic") complication of diabetes mellitus. Presence of several characteristic diabetic foot pathologies such as infection, diabetic foot ulcer and neuropathic osteoarthropathy is called **diabetic foot syndrome**.

Due to the peripheral nerve dysfunction associated with diabetes (diabetic neuropathy), patients have a reduced ability to feel pain. This means that minor injuries may remain undiscovered for a long while. People with diabetes are also at risk of developing a diabetic foot ulcer. Research estimates that the lifetime incidence of foot ulcers within the diabetic community is around 15% and may become as high as 25%.

In diabetes, peripheral nerve dysfunction can be combined with peripheral artery disease (PAD) causing poor blood circulation to the extremities (diabetic angiopathy). Around half of patients with a diabetic foot ulcer have co-existing PAD.

Where wounds take a long time to heal, infection may set in and lower limb amputation may be necessary. Foot infection is the most common cause of non-traumatic amputation in people with diabetes



Treatment of diabetic foot can be challenging and prolonged; it may include orthopaedic appliances, antimicrobial drugs and topical dressings.

Most diabetic foot infections (DFIs) require treatment with systemic antibiotics. The choice of the initial antibiotic treatment depends on several factors such as the severity of the infection, whether the patient has received another antibiotic treatment for it, or whether the infection has been caused by a micro-organism that is known to be resistant to usual antibiotics (e.g. MRSA). The objective of antibiotic therapy is to stop the infection and ensure it does not spread.

It is unclear whether any particular antibiotic is better than any another for curing infection or avoiding amputation. One trial suggested that ertapenem with or without vancomycin is more effective than tigecycline for resolving DFIs. It is also generally unclear whether different antibiotics are associated with more or fewer adverse effects.

Summary of management of the diabetic foot includes:

- Education, including the importance of routine preventative podiatry care, and appropriate footwear. The person should check their feet every day and report any sores or cuts that do not heal, puffiness, swelling, and skin that feel hot to the touch.
- Control of glucose, blood pressure and cholesterol; smoking cessation and weight control.
- Risk assessment.
- Mechanical foot interventions to prevent ulceration.
- Antibiotics to manage and prevent infection.
- Management of peripheral arterial disease, including bypass surgery.
- Wound management, including keeping the wound dry and debridement of dead tissue.
- Amputation.