

What is a diabetes-related foot ulcer and why have I got one?

Being told you have a diabetes-related foot ulcer can raise a lot of questions, including how does having diabetes lead to a wound developing on your foot? Read on to find out more...



A diabetes-related foot ulcer is one of the complications of diabetes. Diabetes is a long-term condition that is characterised by high blood sugar levels, which is also sometimes referred to as blood glucose.

There are two common types of diabetes. Type 1 diabetes is an autoimmune disease in which the immune system of the body destroys the insulin-producing cells of the pancreas so it is no longer able to produce insulin. Insulin is like a key that helps unlock your cells and allows glucose (sugar) in your blood to move into your cells where it is used for energy. Insulin also helps the body

store any extra glucose. Type 1 diabetes is mostly diagnosed in children and young adults who need to take insulin every day to stay alive, but it can be diagnosed in adulthood.

Type 2 diabetes is the most common type of diabetes. It arises when the cells in your body do not make or use insulin properly. Your pancreas may be producing insulin but it may not be making enough to keep your blood sugar level within the normal range. Additionally type 2 diabetes can be caused when the cells in your body don't react to the insulin like they should. This is known as insulin resistance.

You are more likely to develop type 2 diabetes if you have risk factors, such as being overweight or obese, or a family history of the disease. You can develop type 2 diabetes at any age and can help delay or prevent type 2 diabetes by leading a healthier lifestyle, such as losing weight or preventing weight gain and exercising.

Damage caused by uncontrolled blood sugar

Whichever type of diabetes you have, the key to good health is maintaining tight control of your blood sugar, or glucose, levels. You will be advised how to do this by your healthcare professional, and it may involve using insulin or medication, in combination with a healthy diet. If your blood sugar control is poor, over time, it can result in damage to your heart, kidneys, feet and eyes. This usually occurs because the elevated glucose in your blood stream causes damage to the blood vessels, such as thickening, hardening or narrowing. These changes in the lower limb are known as peripheral vascular disease, and it can cause the blood supply to your feet to become restricted. A reduced blood supply to the skin on your feet means it receives a lower number of infection-fighting cells, nutrients and oxygen, all of which can make your feet

vulnerable to damage, and it may mean wounds take longer to heal. If peripheral vascular disease is severe, it can even lead to an infection or even gangrene.

Similarly, nerve damage can happen in the same way. When it arises in the lower limbs it is known as peripheral neuropathy and can lead to a loss of sensation, which can put the feet at risk of harm.

Diabetes-related foot ulcer

Some people with diabetes can go on to develop a diabetes-related foot ulcer. Poor circulation and/or reduced sensation in the feet can contribute to the wound developing, as damage to the foot can go unnoticed until it has developed into a wound. It can also mean it is difficult for the wound to heal, since the reduced blood supply to the foot can deprive the wound of nutrients and cells it needs to heal effectively.

Once a wound is present, it needs to be monitored and treated regularly to encourage healing, and to avoid infection. Poor sensation and blood supply can mean that infection can quickly become serious in some people, leading to limb or even life-threatening infection if it is not quickly treated.




*Keith Harding, Professor Emeritus,
Cardiff University, comments:*

‘A diabetes-related foot ulcer is a complication of diabetes which can have serious consequences for the patient if it is not cared for appropriately. It is important to care for your wound in partnership with your healthcare professional to help it to heal quickly’.