



# DIABETIC FOOT DISEASE

Diabetes is a chronic, progressive disease where the body either makes no insulin or does not respond to it well. Insulin is a hormone that assists glucose (from the carbohydrate in food) entering cells where it is used for energy. The disease cannot be cured but can be managed. People who have had diabetes for a long time or whose blood glucose has been poorly controlled are at risk of a range of complications, one of which is diabetic foot disease. *If identified early diabetic foot disease can be treated.*

## Risk factors for Diabetic Foot Disease

Individuals with diabetes are prone to foot ulcers because of two main factors:

- In people with diabetes there is a narrowing of blood vessels to the feet causing a reduced blood flow to them. This is also called peripheral vascular disease. It means the skin of the feet receives less of the nutrients required for wound healing and there is a decreased removal of the by-products of wound healing. As a result healing is more compromised and takes longer with a greater risk of it becoming infected.
- Blood glucose levels that are raised or uncontrolled over a period of time can damage the nerves that deliver messages about sensation and pain from the feet to the

brain. This is called peripheral neuropathy.

The loss of sensation on the feet means that people with diabetes might not notice small cuts or blisters on their feet, particularly underneath the feet as they do not feel the pain of them. If left untreated, these minor injuries can progress rapidly into an ulcer that is difficult to heal.

There are three main types of diabetic foot ulcers:

- ischaemic (due to peripheral vascular disease)
- neuropathic (due to loss of sensation)
- neuro-ischaemic (due to a combination of both poor circulation and lack of feeling in the foot)

Given these changes in circulation and sensation there is a much greater risk of infection and the development of a diabetic ulcer from even just a small break in the skin.

If serious infection or damage from the ulcer cannot be healed then a surgical removal of the foot/leg may be required (an amputation). Amputations can be minor (toe/s or foot) or major (below or above the knee). The surgical scar from the amputation is also at risk of becoming a chronic wound for the same reasons listed above. When a person has an amputation the chances of needing another one greatly increases.



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## Prevention of Diabetic foot ulcers

Management of diabetic foot ulcers is best managed through their prevention. This is why managing your diabetes as best you can is very important. This includes:

- good blood glucose control
- healthy diet
- physical activity
- good care of the skin on your feet (see information sheet on *Foot care for people with Diabetes*)
- A twice yearly check of the feet by a health care professional is advised as they have the equipment and skill to assess circulation and sensation in the feet.

*If you find a break or sore on the skin of your feet, see your health care professional urgently. Diabetic foot ulcers can develop rapidly.*