What is a diabetic wound? A diabetic foot ulcer is an open sore or wound that most commonly occurs on the bottom of the foot in approximately 15% to 20% of people with diabetes. Diabetes is a leading cause of non-traumatic lower extremity amputation in the United States and approximately 15% to 25% of patients with diabetes who develop a foot ulcer will go on to have an amputation.

Who is at risk for developing diabetic foot ulcers? Anyone who has diabetes can develop a foot ulcer. Native Americans, African-Americans, Hispanics and older men are more likely to develop ulcers. People who are insulin-dependent are at a higher risk of developing foot ulcers as are patients with diabetes-related kidney, eye, and heart disease. Being overweight and using alcohol and tobacco also contributes to the role in developing foot ulcers.

How do diabetic ulcers form? Ulcers form due to a combination of factors, such as loss of feeling in the foot, poor circulation, foot deformities, friction and pressure, and trauma, as well as the duration of diabetes. Patients who have diabetes for many years can develop neuropathy, a lack of feeling in the feet due to nerve damage caused by elevated blood sugar levels. The nerve damage often occurs without pain and one may not even be aware of the problem. Your podiatrist can test your feet for neuropathy with a simple and painless tool called a monofilament.

Vascular disease: Vascular disease can complicate a foot ulcer, reducing the body’s ability to heal and increasing the risk for infection. Elevated blood glucose can reduce the body’s ability to fight off potential infection and also delay healing.

Appropriate wound management includes the use of specialized dressings and topically applied medications. These range from normal saline to advanced products such as growth factors, ulcer dressings and skin substitutes that have been shown to be highly effective in healing foot ulcers.

For a wound to heal there must be adequate circulation to the ulcerated area. Dr. Honick can determine circulation levels with noninvasive testing. If circulation is not adequate you may need to see a vascular surgeon for additional testing and intervention.

How are diabetic foot ulcers treated? The primary goal in the treatment of foot ulcers is to heal the wound as quickly as possible. The faster the healing, the less chance for infection.

There are several key factors in the appropriate treatment of a diabetic foot ulcer. These will include prevention of the infection, taking pressure off the area called “offloading.” Removing dead skin and tissue, called debridement, as well as applying medications or dressings are used to heal the ulcer. Managing blood glucose and other health problems are of particular importance.

There are several important factors to keep an ulcer from becoming infected. These include keeping blood glucose levels under tight control, keeping the ulcer clean and bandaged, and cleansing the wound on a daily basis and avoiding barefoot walking.

It is important to offload ulcers on the bottom of the foot to promote faster healing. The patient may be asked to wear special footwear or use a wheelchair or crutches. These devices will help to reduce pressure to the ulcer and speed the healing process.

The science of wound care has advanced significantly over the past 10 years. The old thought of “let the air get to it” is now known to be harmful to healing. Wounds heal faster with a lower risk of infection if they are kept covered and moist. The use of Betadine, hydrogen peroxide, whirlpools and soaking are not recommended.

Appropriate debridement of wound.

Blood sugar under good control.

Reducing friction and pressure.

Restoring adequate blood flow.

Vascular disease: Vascular disease can complicate a foot ulcer, reducing the body’s ability to heal and increasing the risk for infection.