

FOOT CARE AND DIABETES

“Diabetic patients spend more days in the hospital with foot problems than any other reason, yet these problems are usually preventable.”

People with diabetes have a significant chance of developing a problem with their feet within twenty years after onset of diabetes. It is estimated that there are 12 million people with diabetes – that is 24 million feet and 120 million toes! It is for this reason that the American Diabetes Association and your health care providers want you to pay special attention to your feet.

Why are people with diabetes at risk for foot problems?

- Diabetes may affect the nerves that tell your feet if they are being injured.
- Diabetes may affect the circulation that brings blood to your feet.
- Diabetes may affect your eyes, which allow you to see a problem and treat it immediately.
- Diabetes may reduce the effectiveness of white blood cells to fight infection.

Skin Changes

The skin functions as a barrier, keeping the insides “in” and the outsides “out.” If there is a break in it, bacteria from the “outside” can get in and that leads to infection. Infections are the main reason for foot amputations and most infections involving a diabetic patient’s feet start directly in a place where there is a break in the skin.

Skin ulcers are the complication of neuropathy. This represents loss of skin from an injury either noticed or more dangerously “unnoticed.” They may occur underneath a common skin lesion such as a corn, callus or blisters. Suspicious or newly formed lesions should be inspected by a health care professional.

Dry skin is another common problem seen in long-standing diabetes. As with anything that dries out, it has a tendency to “crack.” These cracks are called fissures and represent a break in the skin that may get infected.

Neuropathy

One of the most common complications of diabetes is damage to the nerve called neuropathy. This affects about 80% of people who have diabetes for twenty years or longer and is the leading cause of foot problems. Why?? With nerve destruction, the various protective senses are lost allowing injury to occur unknowingly. Take, for instance, touching a hot stove....”Ouch!!” Yet, with neuropathy, the nerves do not tell the brain you “feel” something hot, so you don’t move your hand and the skin gets burned.

Walking in poorly fitted shoes may cause corns and calluses to form. However, as previously mentioned, these lesions may represent problems by hiding bigger problems. Usually, if

something is painful, we would stop walking or take our shoes off. However, with neuropathy, we don't feel the pain and keep walking, forming the ulcer under the callus.

Therefore, with the loss of any sense, we need to compensate by using our other senses. **LOOK** to see if skin has been injured. If there is a problem, go to a doctor's office or emergency room to have the site professionally evaluated, even if you think it is trivial. A trivial problem today may be a serious problem tomorrow! Take care of it today!

Circulation

Changes in circulation occur with aging. However, with diabetes, they occur more quickly. Just like with hardening of the arteries that affects the heart vessels, diabetes hardens the blood vessels of your legs. Diabetes also destroys the capillaries, or tiny blood vessels, that feed the tissues of various systems in your body. The legs and feet are the first to be affected because they are the furthest from your heart.

Some of the symptoms that may be warnings of circulatory problems include:

- Leg cramps that occur while walking, but go away with rest. It commonly recurs with walking the same distance. This is called "intermittent claudication."
- Pain in the feet, especially in bed, that goes away when the feet hang down over the side of the bed.
- Sores that don't heal.
- Lack of hair growing on your legs.
- Feet that look red when hanging and turn white when elevated.

GUIDELINES FOR DAILY FOOT CARE

The best way to deal with the diabetic foot is to prevent a problem before it happens. However, if a problem develops, early detection is the key. You must rely on the other senses, as well as family, friends and your doctor to help detect the potential problems and institute early treatment.

Wash your feet, but do not soak them. Soaking softens the skin and makes it susceptible to infections. **NEVER** use hot water – neuropathy impairs the ability to sense the temperature accurately and may affect the hands as well as the feet. Also, hot water has a more drying effect than warm water. Therefore, either have someone else check the temperature or check it with your elbow. Use a mild soap, rinse and dry your feet well, especially between your toes.

Examine your feet daily. Check the bottoms for sores and calluses. If you cannot, have a friend or family member look for you, or use a mirror under the foot to see hidden areas.

Shoe Fit – Have your feet measured when you buy new shoes. Break new shoes in slowly and look for pressure areas or red spots from where your shoes rub. Do not wear tight shoes

thinking they will stretch while you wear them. Beware of blisters. When you are diabetic you heal slowly – a sore that takes 15 minutes to create can take months to heal. Wear clean dry socks that do not bind, preferably diabetic socks which are soft and stretchy.

Skin Care includes the use of lotions to help keep it from dry out. Don't put lotions between your toes and **NEVER** cut or pull dead or callused skin. Use an emery board or pumice stone to remove them. Do not walk around barefoot – especially outside.

Nails should also be trimmed with an emery board. Cutting may inadvertently lead to an injury. If you cannot reach or see your toes easily, have a podiatrist trim your toenails.

Temperatures may also cause injury. This usually presents as a result of burns from the hot pavement in the summer or frost bite from cold exposure in the winter.

If in doubt, call your doctor or go to the emergency room of your local hospital.

Bones

Even your bones may be affected by diabetes. Although this affects only a few people with diabetes, it is a source of confusion. It presents following some kind of injury like an ankle sprain, fracture or you may not remember doing anything. You may see a change in the shape of your foot with swelling, redness, and possibly pain. Think **INFECTION** first, but if this isn't an infection, consider "Charcot" joint disease – the bone problem of diabetes. See your doctor immediately if there is a change in the shape of your foot or the height of the arch.

Summary:

These combinations of things put your feet at risk. They are very vulnerable because you are not aware of the injury (neuropathy) or can't see that there is an injury (retinopathy) and have poor circulation and can't heal the injury (peripheral vascular disease). Charcot fracture can change the shape of your foot and make pressure areas that may lead to an ulcer. Once a break in the skin has occurred, the barrier is broken and bacteria can get in to cause an infection. If your sugar has not been well controlled, the white blood cells can't fight the infection effectively. Infections hurt, yet in the presence of neuropathy, you may not feel any pain; just that your foot is swollen and can't fit in your sho, or you may notice drainage in your sock. It doesn't take long for an infection to occur and lead to more serious problems. The best way to treat an infection is to prevent it! And if it is already a problem, then early treatment is the key – the earlier the better!

Call your **orthotist/prosthetist** if you have any concerns or questions about your feet. Have regular (annual) visits for replacement of diabetic shoes and inserts.

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