

ORTHOTIC SOLUTIONS, INC.

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Diabetic Statistics

- In May of 1993, Medicare's Therapeutic Shoes for Persons with Diabetes Benefit took effect.
- According to the American Diabetes Association, there are over 20 million Americans with diabetes.
- 25% of persons with diabetes develop foot problems, ulcers being the most common.
- Each year more than 86,000 amputations are performed as a direct result of diabetes.

Definition

Diabetes is a serious disease that can develop from **lack of insulin production** in the body **or** due to **the inability of the body's insulin to perform its normal everyday functions**. Insulin is a substance produced by the pancreas gland that helps process the food we eat and turn it into energy.

Diabetes affects approximately 21 million Americans and is classified into 2 different types: Type 1 and Type 2.

Type 1 is usually associated with juvenile diabetes and is often linked to heredity.

Type 2 commonly referred to as adult onset diabetes, is characterized by elevated blood sugars, often in people who are overweight or have not attended to their diet properly.

Complications

Diabetes disrupts the vascular system, affecting many areas of the body such as the eyes, kidneys, legs, and feet. **People with diabetes should pay special attention to their feet.** Diabetic foot conditions develop from a combination of causes including **poor circulation and neuropathy**.

Neuropathy

Diabetic Neuropathy can cause **insensitivity or a loss of ability to feel pain, heat, and cold**. Diabetics suffering from neuropathy can develop minor cuts, scrapes, blisters, or pressure sores that they may not be aware of due to the insensitivity. If these minor injuries are left untreated, complications may result and **lead to ulceration and possibly even amputation**. Neuropathy can also cause deformities such as Bunions, Hammer Toes, and Charcot Feet.

It is very important for diabetics to take the necessary precautions to prevent all foot related injuries. Due to the consequences of neuropathy, daily observation of the feet is critical. When a diabetic patient takes the necessary preventative foot care measures, he or she reduces the risks of serious foot conditions.

Poor Circulation

Diabetes often leads to peripheral vascular disease that inhibits a person's blood circulation. With this condition, there is a narrowing of the arteries that frequently leads to significantly decreased circulation in

the lower part of the legs and the feet. **Poor circulation contributes to diabetic foot problems** by reducing the amount of oxygen and nutrition supplied to the skin and other tissue, **causing injuries to heal poorly. Poor circulation can also lead to swelling and dryness of the foot.** Preventing foot complications is more critical for the diabetic patient because **poor circulation impairs the healing process and can lead to ulcers, infection, and other serious foot conditions.**

Treatment and Prevention

Footwear

Diabetic Footwear, multidensity inserts and orthotics play an important role in diabetic foot care. Orthotics designed with Plastazote foam, the #1 material for protecting the insensitive diabetic foot, is usually recommended. Plastazote is a material designed to accommodate pressure (hot spots) by conforming to heat and pressure. By customizing to the foot, Plastazote provides the comfort and protection needed in diabetic foot care. Footwear constructed with Plastazote is also recommended frequently for the diabetic patient. **Diabetic footwear should also provide the following protective benefits:**

- Extra depth and a high, wide toe box (high and wide space in the toe area).
- Soft, breathable material to accommodate swelling and other foot deformities.
- Removable inserts for fitting flexibility and the option to insert orthotics if necessary.
- Rocker Soles designed to reduce pressure in the areas of the foot most susceptible to pain, most notably the ball-of-the-foot.
- Firm Heel Counters for support and stability.

Foot care

Proper foot care is especially critical for diabetics because they are prone to foot problems such as:

- Loss of feeling in their feet
- Changes in the shape of their feet
- Foot ulcers or sores that do not heal

Simple daily foot care can prevent serious problems. According to the National Institute of Health, the following simple everyday steps will help prevent serious complications from diabetes:

1. **Take Care of Your Diabetes**

Make healthy lifestyle choices to keep your blood sugar close to normal. Work with your health care team to create a diabetes plan that fits your lifestyle characteristics.

2. **Check Your Feet Every Day**

You may have foot problems that you are not aware of. Check your feet for cuts, sores, red spots, swelling, or infected toenails. Checking your feet should become part of your daily routine. If you have trouble bending over to see your feet, use a plastic mirror to help. You can also ask a family member to help you. Important Reminder: Be sure to call your doctor immediately if a cut, sore, blister, or bruise on your foot does not heal after one day.

3. **Wash Your Feet Every Day** Wash your feet in warm, NOT HOT, water. Do not soak your feet because your skin will get dry. Dry your feet well. Be sure to dry between your toes. Use talcum powder to keep the skin dry between the toes.
4. **Keep the Skin Soft and Smooth**
Rub a thin coat of skin lotion or cream on the tops and bottoms of the feet. Do not put lotion between your toes, because this might cause infection.
5. **Wear Therapeutic Shoes and Diabetic Socks At All Times**
Wearing **Therapeutic shoes provides for maximum comfort, protection, width and depth needed** for the diabetic foot. Never walk barefoot, not even indoors. It is extremely easy to step on something and hurt your feet. Always wear seamless socks, stockings, and nylons with your shoes to help avoid the possibility of blisters and sores developing. Diabetic socks are seamless socks that are made of materials that wick moisture away from your feet and absorb shock and shear. Always check the insides of your shoes before putting them on. Make sure the lining is smooth and there are no foreign objects in the shoe, such as pebbles. Wear shoes that fit well and protect your feet.
6. **Protect Your Feet From Hot and Cold**
Always wear shoes at the beach or on hot pavement. Put sunscreen on the tops of your feet for protection from the sun. Keep your feet away from radiators or open fires. DO NOT use hot water bottle or heating pads on your feet. If your feet are cold, **wear Night Gauntlets** or seamless socks at night. Lined boots are good to keep your feet warm in the winter.
7. **Keep the Blood Flowing to Your Feet**
Put your feet up when you are sitting. Wiggle your toes for 5 minutes, 2 or 3 times a day. Move your ankles up and down and in and out to improve blood flow in your feet and legs.
 - DO NOT cross your legs for long periods of time.
 - DO NOT wear tight socks, elastic, or rubber bands, or garters around your legs.
 - DO NOT wear restrictive footwear or foot products. Foot products that can cut off circulation to the feet, such as products with elastic, should not be worn by diabetics.
 - DO NOT smoke. Smoking reduces blood flow to your feet. If you have high blood pressure or high cholesterol, work with your health care team to lower it.
8. **Be More Active**
Ask your doctor to plan an exercise program that is right for you. Walking, dancing, swimming, and bicycling are good forms of exercise that are easy on the feet. Avoid all activities that are hard on the feet, such as running and jumping. Always include a short warm-up or cool-down period. Wear protective walking or athletic shoes that fit well and offer good support.
9. **Communicate With Your Doctor**
Ask your doctor to check the sense of feeling and pulses in your feet at least once a year. Ask your doctor to tell you immediately if you have serious foot problems. Ask your doctor for proper foot care tips and for the name of your local podiatrist.