FootCareMD
A step in the right direction

Shoes and Orthotics for Diabetics

Proper footwear is an important part of an overall treatment program for people with diabetes, even for those in the earliest stages of the disease. If there is any evidence of neuropathy, or lack of sensation, wearing the right footwear is crucial. By working with a physician and a footwear professional, such as a certified pedorthist, many patients can prevent serious diabetic foot complications.

Objectives

Footwear for people with diabetes should achieve the following objectives:

- **Relieve areas of excessive pressure.** Any area where there is excessive pressure on the foot can lead to skin breakdown or ulcers. Footwear should help to relieve these high-pressure areas and therefore reduce the occurrence of related problems.
- **Reduce shock and shear.** A reduction in the overall amount of vertical pressure, or shock, on the bottom of the foot is desirable, as well as a reduction of horizontal movement of the foot within the shoe, or shear.
- **Accommodate, stabilize and support deformities.** Deformities resulting from conditions such as Charcot involvement, loss of fatty tissue, hammer toes and amputations must be accommodated. Many deformities need to be stabilized to relieve pain and avoid further destruction. In addition, some deformities may need to be controlled or supported to decrease progression of the deformity.
- **Limit motion of joints.** Limiting the motion of certain joints in the foot can often decrease inflammation, relieve pain, and result in a more stable and functional foot.

Shoes

If you are in the early stages of diabetes, and have no history of foot problems or any loss of sensation, a properly fitting shoe made of soft materials with a shock absorbing sole may be all that you need. It is also important for patients to learn how to select the right type of shoe in the right size, so that future problems can be prevented. The excessive pressure and friction from the wrong kind of shoes or from poorly fitting shoes can lead to blisters, calluses and ulcers, not only in the insensitive foot but also in feet with no evidence of neuropathy.

It is highly recommended that shoe fitting for patients with any loss of sensation be done by a professionally trained shoe fitter or board-certified pedorthist. People with insensitive feet tend to purchase a shoe that is too tight because the size that feels right is often too small.

In achieving proper shoe fit, both the shape and size of the shoe must be considered. You should try to match the shape of the shoe to the shape of your foot. This means that you should be sure your shoes have adequate room in the toe area, over the instep and across the ball of the foot, and there should be a snug fit around the heel.

When considering your correct shoe size, remember that the width is just as important as the length. The proper shoe size is the one where the widest part of the foot, which lies across the foot at the base of the toes, is in the widest part of the shoe. There should also be 3/8- to 1/2-inch between the end of the shoe and the longest toe. In addition, a shoe with laces is recommended to provide the adjustability needed for any swelling or other deformities and to allow the shoe to be fit properly without any danger of slipping off.

Prescription Footwear

Many diabetics need special footwear prescribed by a physician. Prescription footwear includes:

- Healing shoes. Immediately following surgery or ulcer treatment, some type of shoe may be necessary before a regular shoe can be worn. These include custom sandals (open toe), heat-moldable healing shoes (closed toe) and post-operative shoes.
- In-depth shoes. The in-depth shoe is the basis for most footwear prescriptions. It is generally an oxford-type or athletic shoe with an additional 1/4- to 1/2-inch of depth throughout the shoe, allowing extra volume to accommodate any needed inserts or orthoses, as well as deformities commonly associated with a diabetic foot. In-depth shoes also tend to be light in weight, have shock-absorbing soles, and come in a wide range of shapes and sizes to accommodate virtually any foot.
- External shoe modifications. This involves modifying the outside of the shoe in some way, such as modifying the shape of the sole or adding shock-absorbing or stabilizing materials.
- Orthoses or inserts. An orthosis is a removable insole which provides pressure relief and shock absorption. Both pre-made and custom-made orthoses or inserts are commonly prescribed for patients with diabetes, including a special total contact orthosis, which is made from a model of your foot and offers a high level of comfort and pressure relief.
- Custom-made shoes. When extremely severe deformities are present, a custom-made shoe can be constructed from a cast or model of the patient's foot. These cases are rare. With extensive modifications of in-depth shoes, even the most severe deformities can

usually be accommodated.

Taking good care of your feet means making sure you have the right foot wear. Whether you have been recently diagnosed or have had diabetes for many years, proper footwear can help prevent serious foot problems. Be sure to talk to your physician about the type of shoes, modifications and orthoses that are right for you.

What Are Orthotics?

Orthotics are devices that are worn to correct foot and ankle problems non-surgically. They include foot pads, shoe inserts and ankle braces.

Foot pads are placed on the sole of the shoe. They are used to treat conditions that include metatarsal and sesamoid pain.
Shoe inserts are also placed in the shoe. These devices are used to treat a wide variety of problems that include foot arthritis and flat feet. There are many different kinds of inserts, from ones that are soft to ones that are quite rigid. Some come in predetermined sizes or contours, while others need to be custom molded to an individual's specific foot shape.

Ankle braces are devices the patient must put on before fitting into a shoe. They are used to treat a variety of diseases like ankle arthritis, foot drop and tendinitis. Similar to foot inserts, these braces come in a wide variety. Depending on the type, severity and location of the condition, some braces need to be custom made for the patient and may require a couple visits to get the best fit.

Resources

Diabetic Foot Overview

How to Care for Your Diabetic Feet

Diabetic Foot Problems

Foot Ulcers and the Total Contact Cast

The Diabetic Foot and Risk: How to Prevent Losing Your Leg