

FOOT CARE FOR A LIFETIME



A Comprehensive
Guide for Care of the
Insensitive Foot

U.S. Department of Health and Human Services
Health Resources and Services Administration
Healthcare Systems Bureau
National Hansen's Disease Programs



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CARING FOR YOUR INSENSITIVE FEET

The loss of protective sensation puts you at a high risk for injury, permanent deformity, and even amputation. Following the guidelines of this booklet will help you protect your feet and greatly reduce the chances of foot problems that commonly occur with Diabetes and neuropathy. Regular foot exams by your footcare specialist, daily self-inspection, and wearing protective footwear are the keys to keeping your feet healthy. It is important that you become familiar with the information in this booklet and begin to put it into practice so that these principles will become habits in your daily routine. After reading this booklet, please discuss any questions or concerns you have with your footcare specialist. This will eliminate any confusion and you can plan together for your routine footcare.

The following areas will be addressed:

Daily Foot Care

- Cleaning your feet
- Toenail care
- Nail care tips

Daily Self-Inspection

- When to inspect
- Inspection tips
- What to look for

Socks and Shoes

- Selecting your shoes
- Fitting your shoes
- Wearing new shoes
- Socks

Foot Care Warnings!

Helpful Resources



WORDS YOU SHOULD KNOW

Protective Sensation: Having enough feeling in your feet to quickly notice a problem or injury.

Loss of Protective Sensation* (LOPS): The level of sensory loss that puts you at risk of having an injury without feeling it. For example, if you have a loss of protective sensation, discomfort from a poorly fitting shoe, a pebble in your shoe, or even a wrinkle in your sock may cause skin damage before you recognize the problem.

Insensitive Foot: A foot that has lost protective sensation. An individual who has lost protective sensation must ALWAYS wear protective footwear every time the foot touches the floor.

Ulcer: Any opening in the skin. When your foot is insensitive, an ulcer most often occurs on the bottom of the foot or over a bony part of your foot.

Barefoot: Walking without protective footwear. Walking in socks or slippers is still considered barefoot and can cause an ulcer.

Protective Foot: There are no standards for protective footwear. A shoe intended for use in patients with neuropathy does NOT mean that it is appropriate or safe for our foot. You must consult your footcare specialist to ensure you have the correct footwear.

Footcare Specialist: This may be a Podiatrist, Nurse, Pedorthist, Orthotist, or Therapist who has specialized training in foot care and is responsible for the routine care of your feet.

*Loss of protective sensation is determined by your ability to feel a 10g monofilament. This test can be performed by your footcare specialist.



DAILY FOOT CARE

Cleaning Your Feet:

- Check the water temperature with your hand or elbow to make sure the bath water is a safe temperature. A safe temperature is below 110 degrees F (42-43 degrees Celcius).
- Wash your feet with warm (NOT HOT), soapy water.
- Avoid soaking your feet. Soaking your feet for prolonged periods of time can actually dry the skin.
- While you are washing, do a thorough inspection of your feet.
- Rinse with warm (NOT HOT), clean water.
- Dry your feet carefully, especially between your toes.
- Apply fragrance free and alcohol free moisturizing lotion immediately after cleaning your feet, but DO NOT put lotion between your toes. Keeping the area between the toes too moist may cause skin breakdown.



Toenail Care:

Toenails need care on a regular basis because long or thick nails can press on neighboring toes and cause open sores. It is best to consult a footcare specialist before attempting to cut your own toenails. If you or a family member cuts your toenails, please follow the tips below.

Nail Trimming Tips:

- Trim toenails straight across.
- DO NOT cut into the corners of the nail/toe. This can cause an ingrown toenail.
- Use a nail file or Emory board to gently round the edges of the nail.
- NEVER use knives, scissors or razor blades to trim your toenails.



Improperly cut nail is too short and into the corners of the nail.

Properly cut nail is straight across and avoids the corners of the nail.



Thick nails can cause pressure on the nail bed



Long nails can damage surrounding skin



Use the proper tools to trim your nails



DAILY SELF-INSPECTION

The single most important thing you can do to protect your feet is daily self-inspection. Finding problems early and getting help when the problem is small can prevent permanent damage and deformity to your feet. Contact your footcare specialist immediately if you see a problem on your foot, no matter how small it may seem.

When to Inspect:

- Before you put on your socks and shoes
- After you take off your socks and shoes
- After you take a bath or shower
- At regular intervals throughout the day

Inspection Tips:

- Check between all of your toes. These areas are not generally visible and are often overlooked.



- If you cannot see the bottom of your foot, use a mirror or ask for help from family members or friends.

What to Look For:

- Blisters, cuts or scratches can lead to infection if ignored.
- Color changes (blue, bright red or white spots): Color changes can be a sign that the skin is damaged.
- Areas of excessive dryness can crack and allow bacteria to enter the skin.
- Callus or corns are signs of excessive pressure and need to be addressed immediately.
- Swelling can be a sign of injury to the soft tissue or bone and should be brought to the attention of your footcare specialist immediately.



Fig. 1 Heavy callus becomes dry and cracked and can cause an ulcer.



Fig. 2 Untrimmed callus acts like a rock in your shoe. It can cause damage to the underlying tissue or even an open sore as you walk.



Fig. 3 Look for any areas of discoloration.



Fig. 4 Cracking of the callus allows bacteria to enter the skin and can cause infection.



SHOES AND SOCKS

When your feet have a loss of protective sensation, the shoes (and socks) you wear can either help you to live a healthy and productive life, or can contribute to repeated open sores that may gradually lead to amputation. No single type or style of shoe is appropriate for everyone. People with insensitive feet have special footwear needs that must be addressed by a footcare specialist in order to prevent ulcers caused by shoes that don't fit properly. The following information is provided to help you make wise choices in the shoes you select and wear every day.

Selecting Shoes:



- Without protective sensation, it is difficult for you to know if the shoe is fitting correctly. You may be tempted to choose a shoe that is too tight because it may “feel” better. **DO NOT** rely on your judgment or feeling as you select your shoes.
- **DO NOT** choose a shoe just because it is marked “Diabetic shoe”. Select a shoe based on the recommendation of your footcare specialist.
- Select a shoe that reflects the measured size, shape, and special needs of your feet. See Fig.1 and 2.
- Select a shoe made of real leather or stretchable material so it will accommodate your foot; or is able to be modified to accommodate your foot.
- Let your footcare specialist check the fit of the shoe **BEFORE** you wear it so you can return it if you need a different size or style. Check the return policy before purchasing new shoes.

Fitting Shoes:

- **DO NOT** purchase a shoe based on the size you've always worn. There is no size standard for shoes (i.e. size 8D with one manufacturer is different than another manufacturer).
- A properly fitting shoe should have the following characteristics:
 - At least 1 inch (a thumb width) between the longest toe and the end of the shoe for proper length.
 - Be able to pinch some material at the sides or top of the shoe for proper width.
 - The shape of the shoe should match the shape of the foot.
 - This can be measured by removing the insert of the shoe and tracing it onto a piece of paper. Then place your foot on the drawing of the insert and trace your foot. Compare the two tracings and see if the shape of the insert matches that of your foot, and if your foot fits within the boundaries of the insert. (See Fig. 2)

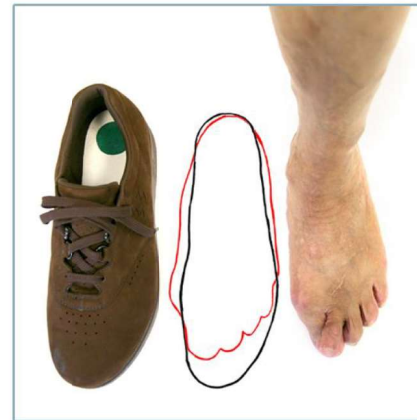


Fig. 1 Improperly fitting shoe with the borders of the foot outside the tracing of the insert.

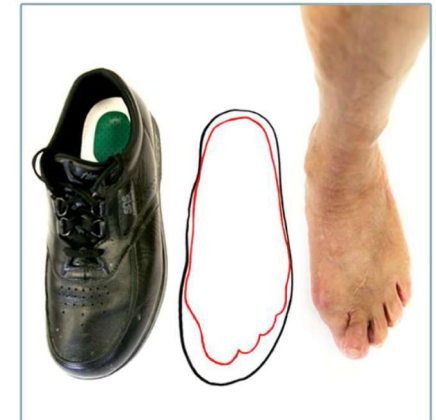


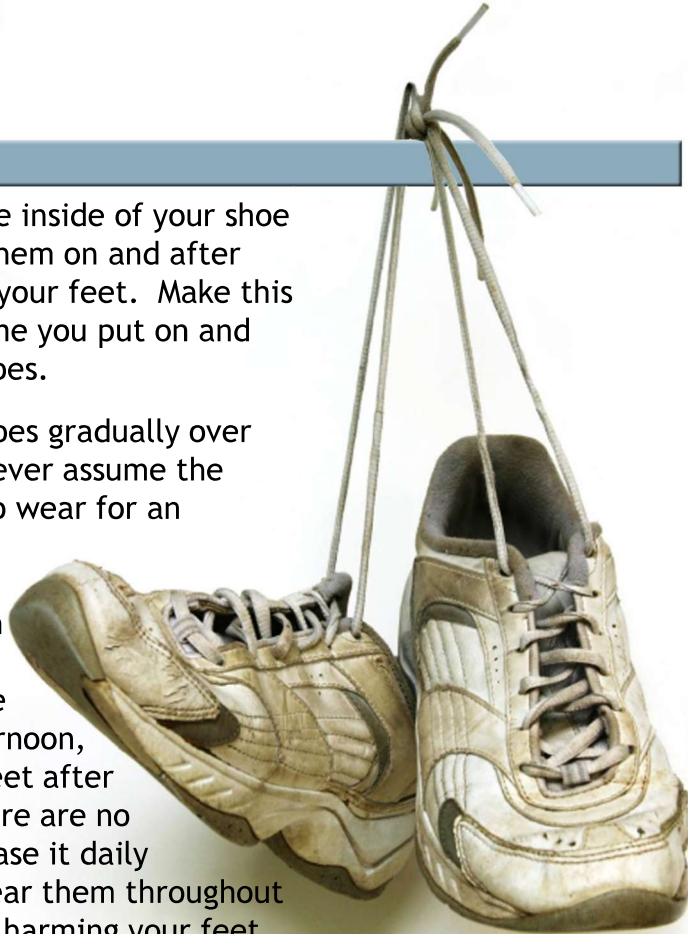
Fig. 2 Properly fitted shoe will have the entire foot inside the tracing.



SHOES AND SOCKS

Wearing Shoes:

- Always check the inside of your shoe before putting them on and after taking them off your feet. Make this a habit every time you put on and take off your shoes.
- Break-in new shoes gradually over several days. Never assume the shoes are safe to wear for an extended time when they are new. Begin with one hour in the morning and one hour in the afternoon, checking your feet after each use. If there are no problems, increase it daily until you can wear them throughout the day without harming your feet.
- Shoes will generally need replacing at least once every year. If you have Medicare Part B and require special footwear, talk to your doctor to see if you qualify for insurance assistance with the purchase of your special footwear.
- Keep your shoes clean and good repair.
- Make sure your footcare specialist checks your shoes every time you have a check-up.



Socks:

Socks can either protect or harm the insensitive foot. If socks are loose and wrinkled within the shoe, there is potential for localized pressure that can harm your foot.

A good pair of socks:

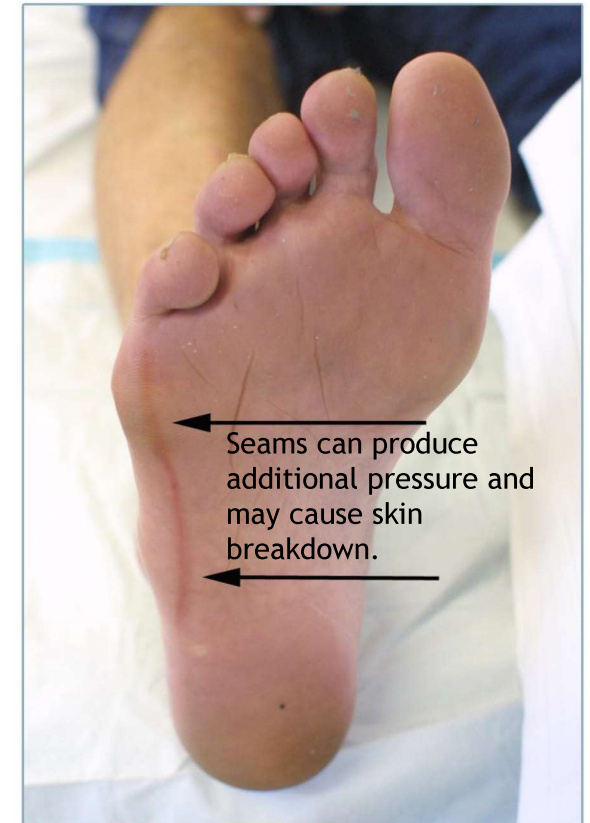
- Should provide a good fit and have enough elastic to stay up on the leg.
- Should not have heavy seams that can cause added pressure on the toes.
- Should be white in color so blood or drainage is visible from a blister or ulcer should one occur.
- Always wear socks with your shoes. Socks provide a protective barrier between your skin and your shoe and may prevent skin breakdown.



Seamless socks can prevent pressure problems.



Shoes should be replaced at least once a year.



Seams can produce additional pressure and may cause skin breakdown.



FOOTCARE WARNINGS!

- DO NOT use heating pads, electric blankets or hot water bottles. When your feet are sensitive, you can burn them easily without knowing it.
- DO NOT use harsh chemicals on your skin such as callus or corn removers, Hydrogen Peroxide, Alcohol, and Betadine.
- DO NOT use knives, scissors, or razor blades to trim your toenails or callus.
- NEVER go barefoot. . . not even in the bath or shower. Wear a shower sandal or shower shoe to protect your feet from the hard surface of the tub/shower. Ask your footcare specialist what type of shower shoe would be best for you.
- DO NOT wear plastic flip flops or narrow toed shoes.



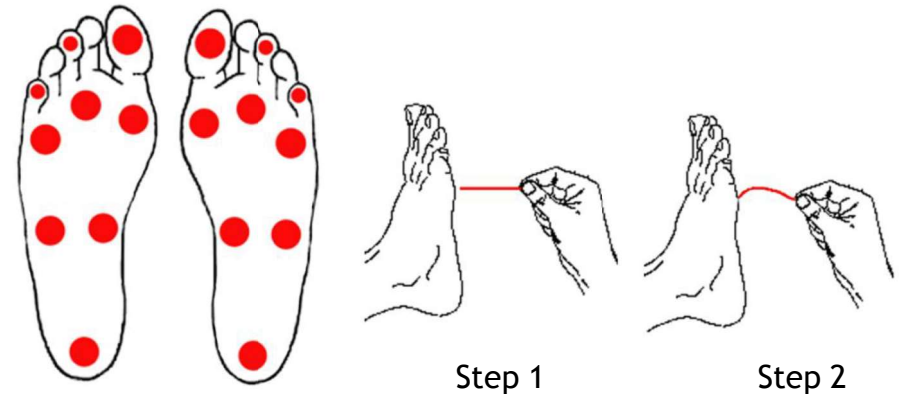
Walking barefoot puts excessive pressure on the bottom of the foot and can cause an ulcer.



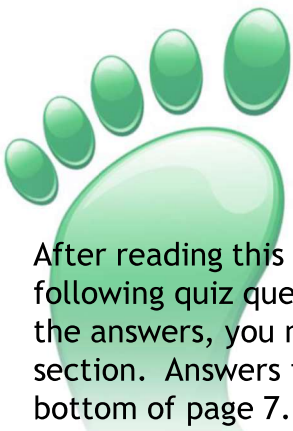
This type of shoe fails to protect your feet from the environment and the straps can cause pressure.

SELF-TEST FOOT SCREENING

Every person who has neuropathy should have a foot screen. An individual who can feel the filament in the selected sites should not develop foot ulcers associated with neuropathy. Follow the instructions below to determine the level of sensation in your feet.



1. Hold the filament by the paper handle as shown in step 1.
2. Use a smooth motion to touch the filament to the skin on your foot. Touch the filament along the side of and NOT directly on an ulcer, callus, or scar. Touch the filament to your skin for 1-2 seconds. Push hard enough to make the filament bend as shown in step 2.
3. Touch the filament to both of your feet in the sites circled in red on the drawing above. Place a (+) in the circle if you can feel the filament at that site and a (-) if you cannot feel the filament at that site.
4. The filament is reusable. After use, wipe with an alcohol swab.
5. If you are unable to feel even one of the areas marked in red, see your footcare specialist as soon as possible. You may have a loss of protective sensation.



FOOT CARE QUIZ

After reading this booklet, you should be able to answer the following quiz questions. If you have difficulty with any of the answers, you may want to go back and review that section. Answers to the questions can be found on the bottom of page 7.

1. True or False - Walking in socks and slippers is OK for the foot if it's only for a short period of time.
2. True or False - If a shoe is labeled a "Diabetic Shoe" it will be safe and appropriate for you to wear.
3. Self inspection of your feet should be performed
 - a. Once a day
 - b. 3-4 times a week
 - c. At regular intervals throughout the day and anytime you remove your shoes.
4. True or False - Using scissors to trim your nails is OK as long as they are sharp.
5. True or False - Your footcare specialist should always check your footwear before you wear it for the first time to make sure it fits properly.
6. Which of the following are appropriate to warm your feet if they feel cold?
 - a. Heating pad
 - b. Hot water bottle
 - c. Electric blanket
 - d. None of the above
7. True or False - Corn and callus removers are safe to use on the diabetic foot.

HELPFUL RESOURCES



LEAP Lower Extremity Amputation Prevention Program
www.hrsa.gov/leap 1-800-642-2477

American Diabetes Association
www.diabetes.org 1-800-342-2383

Centers for Disease Control and Prevention
www.cdc.gov/diabetes 1-877-232-3422

American Podiatric Medical Association
www.apma.org/diabetes 1-301-581-9200

National Diabetes Education Program
www.ndep.nih.gov 1-301-496-3583

Diabetes Life www.dlife.com

Foot Care Quiz Answers

- | | |
|----------|----------|
| 1. False | 5. True |
| 2. False | 6. D |
| 3. C | 7. False |
| 4. False | |