Check Yourself to Protect Yourself
A Guide to Diabetes Control
A Course for Improving Diabetes Outcomes
Taking Care of Our Feet

REACH: Charleston & Georgetown Counties Diabetes Coalition

© September 2000, REACH Charleston and Georgetown Diabetes Coalition, 99 Jonathan Lucas Boulevard, PO Box 250160, Charleston, S.C., USA 29425
May be reproduced with permission and credit for nonprofit education purposes only. (Call 843-792-5872 for permission); Updated 2009

Ezekiel 37:10 “So I prophesied as he commanded me, and the breath came into them, and they lived, and stood up upon their feet, an exceeding great host.”
Potential Guest Speakers (if desired): Guest speakers who could answer questions include health care professionals such as podiatrist, certified diabetes educator, foot care nurse, nurse practitioner, physician assistant or doctor.

Main Ideas:

Participants will learn how to take care of their feet, cut their toenails, select shoes, and prevent foot problems that can lead to foot sores (ulcers) and/or amputation.

Goals for this Lesson:

After the lesson, participants will be able to:

✓ Explain how to take care of feet and nails to prevent foot problems.
✓ Demonstrate how to check and care for feet each day to identify early signs of foot problems.
✓ Use the monofilament to check for loss of feeling in feet.
✓ List the steps in selecting appropriate footwear.
✓ List foot problems to report to health provider.
✓ Ask the health care provider for foot exam.
✓ List problems that can cause foot problems.
✓ Discuss ways to prevent foot problems.
Recommended Items needed for all activities in this Lesson  (essential items are indicated with *)

- **The instructor will need:**
  - At least one pair of gloves or box of gloves (For use if touching feet and remember to change before moving to another participant)
  - Lesson overheads or posters or video and VCR
  - Flip chart or large newsprint
  - Large markers (2 colors)
  - *Monofilament
  - Pumice stone
  - Emory board
  - Nail clippers (large and small)
  - Razor blade **(to show what not to use)**
  - *2 pieces of plain paper or poster board (8.5 x 11 inches)
  - *1 pen or pencil
  - *1 shoe with rounded toe, high toe box, good support (example for women and men)
  - 1 shoe with pointed toe, little support, etc. (example for men and women)
  - *One copy of CDC’s “Take Charge of Your Diabetes” OR “My Guide to Sugar Diabetes” (from REACH) for each participant
  - *One copy of Booklet or Handout Sheet “Take Care of Your Feet for a Lifetime” or NIDDK “Prevent diabetes problems: Keep your feet and skin healthy” for each participant
  - *One copy of Patient Card “Control Your Diabetes by Knowing and Controlling Your ABCs” (from REACH) for each participant
  - Medicare forms for protective shoes to distribute to clients with Medicare coverage and diabetes.
  - *Sign-in Sheet for participants
  - *Evaluation Sheet to record comments at the end of the session

- **Each participant will need:**
  - *2 pieces of plain paper or poster board (8.5 x 11 inches)
  - *1 pen or pencil
  - *1 monofilament to test for sensation
  - Mirror to look at feet
  - Samples of foot lotions (if available)
  - *One copy of CDC’s “Take Charge of Your Diabetes” OR “My Guide to Sugar Diabetes” from REACH
  - *One copy of NDEP’s Booklet or Handout Sheet “Take Care of Your Feet for a Lifetime” or NIDDK’s “Prevent diabetes problems: Keep your feet and skin healthy”
  - *One copy of Patient Card “Control Your Diabetes by Knowing and Controlling Your ABCs” from REACH
Lesson Facts:

**Daily Foot Care:**
- Always wear shoes and socks/hose.
- The best socks are cotton, wool, or densely padded acrylic socks that provide maximum comfort, have no seams that rub feet, and keep feet warm and dry. See: [http://healthpsych psy.vanderbilt.edu/diabetic%20Socks.htm](http://healthpsych psy.vanderbilt.edu/diabetic%20Socks.htm)
- Wash (but do not soak) feet in warm (not hot) water and dry well between toes each day.
- Rub lotion, cream, baby oil, or petroleum jelly on tops and bottoms of your feet, **but not between toes.**
- Use talcum or foot powder if feet sweat. **Do not use powder with corn starch.**
- Check feet daily to identify ANY changes in feet or problems such as dryness, cracking feet, swelling, red spots, cracks between toes, corns, blisters, sores, scratches or infections.
- Cut toenails straight across but follow the curve of your toe. Don’t cut short or in at corners.
- Smooth sharp edges and corners of nail VERY LIGHTLY with emery board. Do not use metal file.
- Remove calluses by gently rubbing with emery board or pumice stone. Check with your health provider to get okay and be careful.
- If you get a manicurist to do your feet, always tell them that you have diabetes. Tell them how to care for your feet and cut your toenails.
- **Do not** use razor blades or do “bathroom surgery” and **do not** use corn/callus pads or medicines on corns or calluses.
- **Do not** use Epsom Salts, iodine, merthiolate, mercurochrome, alcohol, or liniment on your feet. These can burn skin.
- **Do not use heating pads, hot water bottles, or microwavable warmers** as these can burn the skin.
- For healthier feet, make sure your feet get a good blood supply to “feed the feet.” When sitting for long times (more than 30 minutes), keep legs straight and up on a stool or chair. **Do not sit with legs crossed.**

**Buying New Shoes:**
- Purchase new shoes in afternoon or evening when feet are largest.
- Try on both shoes and buy for the bigger foot.
- Make sure the shoe is big enough for all parts of your feet, with plenty of toe room.
- Feel the inside of shoe with your hand for seams, rough places that may injure your feet.
- Break in new shoes by wearing them only 1-2 hours each day for several weeks and check feet carefully for signs of rubbing.
Partner with your Doctor or Health Provider by:

- Controlling your blood sugar and not smoking can help protect your feet.
- Taking your shoes and socks off and asking your health care provider to look at your feet at every visit.
- Telling your health care provider if your feet tingle, burn, or hurt, or if you are not able to feel heat, cold, or touch.
- Telling your health care provider about any foot changes, no matter how small.
- **Calling your health provider if a cut, sore or blister on the foot does not start to heal in 1 day.**
- Asking your doctor if you qualify for special shoes covered by Medicare.
- Asking your doctor if you have any of the following problems that increase your chances of foot problems:
  - Loss of feeling in feet.
  - Signs of increased foot pressure.
  - Bone deformity.
  - Low or faint or absent pulses in feet.
Lesson Activities:

Activity 1: Checking and caring for feet each day to identify early signs of foot problems.

Items needed for Activity 1

- The instructor will need:
  - At least one pair of gloves or box of gloves
  - Lesson overheads or posters or video and VCR
  - Flip chart or large newsprint
  - Pumice stone
  - Emory board
  - Nail clippers (large and small)
  - Razor blade (to show what not to use)
  - 1 pen or pencil
  - *One copy of “Take Charge of Your Diabetes” OR “My Guide to Sugar Diabetes”
  - *One copy of Booklet or Handout Sheet “Take Care of Your Feet for a Lifetime” or NIDDK “Prevent diabetes problems: Keep your feet and skin healthy”
  - *One copy of Patient Card “Control Your Diabetes by Knowing and Controlling Your ABCs”
  - *Sign-in Sheet for participants
  - *Evaluation Sheet to record comments at end of session

- Each participant will need:
  - 1 pen or pencil
  - *One copy of “Take Charge of Your Diabetes” OR “My Guide to Sugar Diabetes”
  - *One copy of Booklet or Handout Sheet “Take Care of Your Feet for a Lifetime” or NIDDK “Prevent diabetes problems: Keep your feet and skin healthy”
  - *One copy of Patient Card “Control Your Diabetes by Knowing and Controlling Your ABCs”
  - Mirror to look at feet
  - Samples of foot lotions (if available)
Activity 1 Lesson

- Use the “Foot Care Guide for People with Diabetes” booklet and review pages 1-4 or use the Video or Overheads for the lesson.

- Demonstrate how to use the mirror to check the feet, and how to spread and look between each toe.

- Remind participants that baby oil or petroleum jelly is a less expensive moisturizer for feet.

- Remind participants to avoid powders that contain cornstarch. If some of the powder spills on floor, be careful as the powder can cause you to slip and fall. Get the powder up immediately.

- Ask participants to set a time and place to check feet each day.

- Ask some participants to share their plans and how they chose the time and place.

- Ask participants if they use manicurist to do feet. Remind them to talk about foot care and diabetes with the manicurist.

- Show some examples of needed foot care “tools” such as emery board and nail clippers.

- Show pumice stone and how to use but use carefully and only with health provider’s okay.

- Show some examples of tools not to use such as razor blades.

- Remind participants to always wear shoes and socks/hose (but avoid garters/rolling hose that interferes with circulation).

- Share patient stories and ask participants if they have any similar stories they can share:
  - Person with diabetes walked to mail box on hot pavement in summer and did not feel heat. Feet blistered, became infected, and lost part of foot.
  - Doctor with diabetes dropped keys in shoe. He did not check shoes. He was in OR all day doing surgery. Later, he removed shoes and realized key had stuck deep into foot. It took more than 4 months for foot to heal.
  - Man who did not know he had loss of feeling in feet. He repaired large trucks and stood on hot truck engine, but did not feel heat. He developed thick solid blisters on bottoms of both feet, and almost lost both feet. Now he always tests the heat with his hand before standing on engine. (Note: remind all not to “pop” even small blisters.)
**Activity 2: Checking for loss of feeling in the feet --Practice using the monofilament**

**Items needed for Activity 2**

- **The instructor will need:**
  - At least one pair of gloves or box of gloves (For use if touching feet and change before moving to another participant)
  - *Lesson overheads or poster showing how to use monofilament
  - Flip chart or large newsprint pad
  - Large markers (2 colors)
  - *Monofilament and instructions on use
  - *Sign-in Sheet for participants
  - *Evaluation Sheet to record comments at end of session

- **Each participant will need:**
  - *1 patient monofilament to test for sensation
  - *Booklet or Handout Sheet for each participant; *Take Care of Your Feet for a Lifetime*

**Activity 2 Lesson**

- Have the participants get in groups of 3 persons.

- Give each participant a monofilament and explain: “It’s a fancy “fishing line” that is of a certain thickness. Show or place drawing on flip chart.

- Give each person a diagram showing:
  - --Sites for testing the monofilament
  - --How much pressure to apply just so the monofilament bends in a curve.

- Show them how long to apply the monofilament for 5 seconds. Touch skin on foot (not corn or callous) with the monofilament and bend in curve on count of “one thousand 1”. Hold there and count rapidly (silently) “one thousand 2,
one thousand 3, one thousand 4, one thousand 5.” Remove immediately. Apply to another area of the foot as shown in the foot diagram.

➢ Explain that the test is not painful and that the touch of the monofilament should feel like a light touch to the foot. Have each person practice on their own hand or arm first and then on each other.

➢ Have each person apply the monofilament to their partner using the recommended sites, time (5 seconds), and recommended pressure. The person whose foot is being tested should not be able to see the filament while testing and the foot should be resting comfortably with bottom exposed. The partner should touch skin on foot (not corn or callous) with the monofilament and bend in curve on count of “one thousand 1”. Hold there and count rapidly (silently) “one thousand 2, one thousand 3, one thousand 4, one thousand 5.” Remove immediately. Apply to another area of the foot as shown in the foot diagram.

➢ If the person does not feel it, the tester should check three times before stating that the person does not feel the touch. Also, ask the person to compare the feeling of the monofilament in one foot to the feeling in the other foot or the arm. That way, the person can pick up early signs of loss of feeling.

➢ Check both feet.

➢ Check to see that each participant can demonstrate how to test with the monofilament.

➢ Have the checker or 3rd person record the test by marking an x on the picture of the foot where feeling is missing.

➢ Instruct the participant to show the results to his/her doctor/health care provider on the next visit and ask the doctor/health care provider to recheck the exam.

➢ Explain to each participant, that if feeling is absent in the foot, the doctor will need to check for nerve disease in the leg and foot and that the loss of feeling puts this foot in danger of injury.

➢ REMINDER: If the participant says his or her feet are numb, check for sensation anyway. Some think that have the sensation of numbness is the same as having no feeling. This isn’t true.

➢ If the participant does lack feeling in the feet, he/she should be encouraged to avoid using “glass” in their bathroom. If broken they could step on a sliver of glass and not realize that the glass is stuck in the foot. (I have had patient pull off their shoe and have a large safety pin stuck in their foot!!!!!)
Activity 3: Selecting Appropriate Footwear: List the steps

Items needed for Activity 3

- The instructor will need:
  - At least one pair of gloves or box of gloves (For use if touching feet and change before moving to another participant)
  - Flip chart or large newsprint
  - Large markers (2 colors)
  - *2 pieces of plain paper or poster board (8.5 x 11 inches)
  - *1 pen or pencil
  - *1 shoe with rounded toe, high toe box, good support (example for women and men)
  - 1 shoe with pointed toe, little support, etc. (example for men and women)
  - White socks with no seams
  - *One copy of “Take Charge of Your Diabetes” OR “My Guide to Sugar Diabetes”
  - *One copy of Booklet or Handout Sheet “Take Care of Your Feet for a Lifetime” or NIDDK “Prevent diabetes problems: Keep your feet and skin healthy”
  - *One copy of Patient Card “Control Your Diabetes by Knowing and Controlling Your ABCs”
  - *Sign-in Sheet for participants
  - *Evaluation Sheet to record comments at end of session

- Each participant will need:
  - *2 pieces of plain paper or poster board (8.5 x 11 inches)
  - *1 pen or pencil
  - *One copy of “Take Charge of Your Diabetes” OR “My Guide to Sugar Diabetes”
  - *One copy of Booklet or Handout Sheet “Take Care of Your Feet for a Lifetime” or NIDDK “Prevent diabetes problems: Keep your feet and skin healthy”
  - *One copy of Patient Card “Control Your Diabetes by Knowing and Controlling Your ABCs”
Activity 3 Lesson

➢ Review the steps to selecting footwear

Proper footwear is very important for the prevention of serious foot problems. Some points to review:

- Shop for shoes in the afternoon or evening, feet are usually a little swollen by the end of the day.
- Have both feet measured while you are standing.
- Always fit the larger foot. No two feet are alike.
- The shoe should fit the shape of the foot.
- Lower heeled shoes make the foot more stable.
- Shoes with lace ties or Velcro® give extra depth and better fit. Toes need plenty of space.
- Avoid shoes with narrow toes, high heels, thongs, or vinyl tops.
- Avoid shoes that are too loose or too tight.
- When in doubt, consult a prescription shoe fitter who is called a “certified pedorthist.” Special made shoes can fit feet with all kinds of shapes.
- Medicare may cover special prescription shoes for you. Ask your health provider if you qualify. If you do, ask him/her to complete the Medicare forms for referral for special shoes.
- Select socks that are cotton, wool, or densely padded acrylic socks that provide maximum comfort, have no seams that rub feet, and keep feet warm and dry. White is best because you can easily see blood if foot is injured in any way.

➢ Draw the feet exercise and see if the shoe is too small.

- Give each person 2 pieces of paper.
- Divide participants in groups of 2-3.
- With shoes removed, demonstrate how to trace the outline of the foot on the paper. Remember to stand and bear weight on the foot while drawing the outline. Label as right or left foot. Repeat with other foot.
- Have participants trace their feet or each other’s foot on paper.
- Demonstrate how the shoes that are too small may put pressure on the foot by setting the shoe on the tracing of the foot. If the tracing is visible on any side then the shoe is probably too small and is putting pressure on the foot.
- Remind participants that they can take the tracing of the foot with them when they purchase shoes. Set the shoe on the tracing, and if the shoe is too small don’t even try it on.

➢ Selecting and breaking in new shoes.

- Make sure the shoes are smooth on the inside without any rough seams.
- Break in new shoes slowly by wearing them for 1-2 hours a day at first for several weeks. After removing the shoe, look for red areas on the foot.
**Activity 4: Partnering with your Doctor or Health Provider to keep your Feet Healthy**

**Items needed for Activity 4**

- **The instructor will need:**
  - Lesson overheads or posters
  - Flip chart or large newsprint pad
  - Large markers (2 colors)
  - *One copy of “Take Charge of Your Diabetes” OR “My Guide to Sugar Diabetes”*
  - *One copy of Booklet or Handout Sheet “Take Care of Your Feet for a Lifetime” or NIDDK “Prevent diabetes problems: Keep your feet and skin healthy”*
  - *One copy of Patient Card “Control Your Diabetes by Knowing and Controlling Your ABCs”*
  - Medicare forms for protective shoes to distribute to clients with Medicare coverage and diabetes.
  - *Sign-in Sheet for participants*
  - *Evaluation Sheet to record comments at the end of session*

- **Each participant will need:**
  - *One copy of “Take Charge of Your Diabetes” OR “My Guide to Sugar Diabetes”*
  - *One copy of Booklet or Handout Sheet “Take Care of Your Feet for a Lifetime” or NIDDK “Prevent diabetes problems: Keep your feet and skin healthy”*
  - *One copy of Patient Card “Control Your Diabetes by Knowing and Controlling Your ABCs”*
  - For Medicare participants: Medicare form for protective shoe prescription if desired.
**Activity 4 Lesson**

- Divide the participants in groups of 2-3 and ask “How can you be a partner with your doctor or health provider?”

- Ask the participants to role-play what they would do related to their feet when they go to the doctor or health provider. If in groups of 2, one would be the patient and the other the provider. If in groups of 3, the 3rd person would be the observer and offer suggestions for how to start conversation with provider.
  
  The patient should:
  - Remove shoes and socks.
  - Tell the provider about any foot problems.
  - Show the monofilament exam results to the provider.
  - Ask if the patient is eligible for special shoes.
  - Ask if there are any problems with the feet, nerves, or circulation in the feet.
  - Ask what can be done to prevent any problems.

- After inspection ask group members to share their experiences.

- Ask each participant “When is your next diabetes check-up with doctor/health care provider scheduled?”

- If no appointment is scheduled, make a note and contact the participant about setting up an appointment.

- Note: There are persons with diabetes who think they know a lot about diabetes and they don’t need regular appointments every 3-4 months. There are other persons with diabetes who surrender to the doctor or health provider and don’t take an active role in helping their provider manage their diabetes. The best way to manage your diabetes and stay as healthy as possible is to work in partnership with your doctor.

- If the health care provider rushes into the examining room and seems very busy or disinterested in examining the participant’s feet, discuss how to handle the situation with the group.

- Ask if there are participants who have Medicare coverage. Discuss current Medicare coverage for protective shoes and distribute forms that participant can take to health care provider to obtain evaluation for protective shoes.
Summary of all Activities (review with participants before leaving):

**Daily Foot Care:**

- Always wear shoes and socks/hose.
- Wash (but do not soak) feet in warm (not hot) water and dry well between toes each day.
- Apply lotion, baby oil or petroleum jelly to dry feet but **not between toes**.
- Use talcum or foot powder if feet sweat. **Do not use powder with cornstarch**.
- Daily foot inspection can identify signs of circulation problems, nerve damage, or infections that can cause serious foot problems.
- Watch for dryness, cracking, or red spots, cracks between toes, corns, blisters, sores, scratches or infections.
- Cut toenails even with end of toe and follow the curve of your toe.
- Smooth sharp edges lightly with emery board.
- Remove calluses by gently rubbing with emery board or pumice stone. Get an okay from your health provider and be careful.
- **Do not** use razor blades or do “bathroom surgery” and **do not** use corn/callus pads or medicines on corns or calluses.
- **Do not** use Epsom salts, iodine, merthiolate, mercuriochrome, alcohol, or liniment on your feet. These can burn skin.
- **Do not use heating pads, hot water bottles, or microwavable warmers**, as these can burn the skin.
- **Do not cross legs when sitting**.
- Raise legs/feet on a stool when sitting for long time (more than 30 minutes).
- If you use a manicurist, discuss diabetes and how to take care of feet and cut toenails with them.

**Use of Monofilament to Check for Loss of Feeling:**

- Check feet using the monofilament each month to determine if feeling in either feet is less than feeling in the other foot or feeling in the arm. If feeling is decreasing, risks of foot problems are higher.
- Report any change to health care provider and ask provider to check feet.

**Buying New Shoes:**

- Purchase new shoes in afternoon or evening when feet are largest.
- Try on both shoes and buy for the bigger foot.
- Make sure the shoe is big enough for all parts of your feet, with plenty of toe room.
- Feel the inside of shoe with your hand for seams, rough places that may injure your feet.
- Break in new shoes by wearing them only 1-2 hours each day for several weeks.
- Select light colored socks or footwear made from cotton, wool, or densely padded acrylic socks that provide maximum comfort, have no seams that rub feet, and keep feet warm and dry.
Partner with your Doctor or Health Provider by:

- Controlling your blood sugar and **not smoking** can help protect your feet.
- Taking your shoes and socks off and asking your health care provider to look at (examine) your feet each visit.
- Telling your health care provider if your feet tingle, burn, or hurt, or if you are not able to feel touch, heat, or cold.
- Telling your health care provider about any foot changes, no matter how small.
- **Calling your health provider if a cut, sore or blister on the foot does not start to heal in 1 day.**
- Asking your doctor or health provider if you qualify for special shoes covered by Medicare.
- Asking your doctor or health provider if you have increased chance of developing foot ulcer or amputation.

Overall Summary Statement:

- If you:
  - take special care of your feet and inspect your feet each day
  - take care in selecting and wearing shoes
  - **do not smoke** and
  - work in partnership with your health care provider by reporting early signs of foot problems and controlling your blood sugar so that your A1C is less than 7, and your blood pressure is less than 130/80
  
  your chance of foot problems and amputation is reduced.
Questions:

Thank participants for coming. Ask if they have questions, answer the questions only if you are sure of the answer. If you are unsure of an answer, tell them that you will talk to a diabetes foot care expert and have the answer at the next session.

Evaluation:

Ask the participants to complete the Participant Profile.
Ask the participants, the sponsoring organization, the coordinator and the instructor:
✓ What went well?
✓ What can be improved?
✓ What are suggestions for future events and activities for improving diabetes in your community?

Record the information on Community Event Report, attach completed Participant Profiles and return to: REACH US
Give certificate of completion to each participant.

Taking Care of Our Feet Lesson Authors:

- Carolyn Jenkins, DrPH, APRN-BC-ADM, RD, LD, FAAN
  Associate Professor, College of Nursing and
  Principal Investigator, REACH 2010
  Medical University of South Carolina
  Charleston, South Carolina
  Phone: (843) 792-4625   Fax: (843) 792-5822   E-Mail: jenkinsc@musc.edu

- REACH Charleston and Georgetown Community Health Advisors
  Sharon Burns, CMT, MA   (Downtown Charleston and Mount Pleasant)
  Gloria Smith, LPN   (The Sea Islands)
  Virginia Thomas, BS, EPS/ET   (North Charleston and West Ashley)
  Sheila Powell (Awendaw and McClellanville)
  (Charleston County)   Phone: (843) 792-5872   Fax: (843) 792-5822

  Everlena Lance (Georgetown County Diabetes CORE Group)
  Florene Linnen (Georgetown County Diabetes CORE Group)
  (Georgetown County)   Phone: (843) 545-8723 Extension 113   Fax: (843) 545-8346

- Reviewed and approved by Pamela Arnold, APRN-BC-ADM and Teresa Kelechi, Ph.D