



Caring for a Diabetic Foot or Residual Limb in a Farming Environment

What Is Diabetes?

A person who has diabetes has blood glucose levels that are higher than normal. After our bodies turn the food that we eat into glucose (sugar) to use for energy, insulin that is produced by the pancreas takes that glucose into our bodies' cells. If a person has diabetes, either there isn't enough insulin produced to transport the glucose or the body can't effectively use the insulin that is produced. Therefore, glucose builds up in the blood.

Diabetes can cause serious health complications including heart disease, blindness, kidney failure, and lower-extremity amputations. It is the sixth leading cause of death in the United States.¹

Diabetes contributes to the deaths of 1,600 Mississippians each year. In 2002, more than 270,000 Mississippians had diabetes; one-third of those cases went undiagnosed.²

Concerns for the Diabetic Foot

High blood glucose from diabetes causes two problems that can hurt your feet:

1. **Nerve Damage.** Damaged nerves reduce your feeling of pain, heat, and cold in your legs and feet. This can lead to a cut or sore on your foot developing or getting worse before you even know it is there. This lack of feeling caused by nerve damage is called *diabetic neuropathy*.
2. **Poor Blood Flow.** This happens when there is not enough blood getting to your legs and feet. Poor blood flow makes it hard for a sore or infection to heal. This problem is called *peripheral vascular disease*. Smoking when you have diabetes makes this problem even worse.

Concerns for the Residual Limb

Comfort in a prosthetic socket depends on these three things:

- A good fit
- Correct alignment
- Proper skin care

Be sure to **communicate** with your prosthetist. It is your prosthetist's responsibility to make sure your prosthesis is correctly fitted and aligned, but you must tell them if something is wrong.³

Be sure your prosthetist knows about the type of work you do on the farm and the stress that your residual limb will be under.

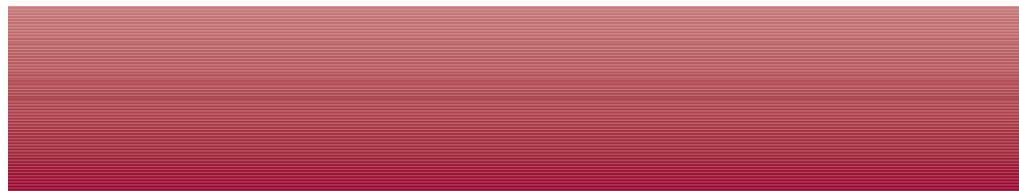
Care for the Diabetic Foot

It's no secret to farmers or agriculture workers that being on your feet outdoors all day can be tough. The potential for blisters and exposure to harsh weather conditions puts your feet at a very high risk. For people with diabetes, this risk is increased because of the potential for nerve damage and poor blood flow.

The best way to keep from having an amputation is to protect the insensitive foot. Try to avoid trauma and excessive pressure on the soles of your feet when you walk.⁴

What Can You Do?

- **Keep your feet dry and clean.** Farm work often begins before sunrise, well before the dew has dried, and it doesn't stop because it is "too wet outside." Diabetic feet should be kept dry and clean. Carry a change of socks for sweaty feet. When washing, test the water temperature with your elbow or a thermometer to make sure it is not too hot. Warm water is best, between 90 and 100 °F. Dry your feet carefully, especially between your toes.



- **Always wear proper footwear.** Farmers cover a lot of ground during the day, from the house to the barn and the pasture, or checking field rows. Wear well-fitting shoes that protect your feet from injuries from the outside environment. The correct shoes should also eliminate areas of high pressure inside the shoe. This may mean you need to wear special shoes or boots and/or use special inserts inside the shoes to distribute pressure.
- **Keep your feet well maintained.** Cut your toenails straight across. Your doctor can provide detailed instructions.
- **Inspect your feet every day** to check for cuts, sores, blisters, redness, calluses, or other problems. This is extremely important to do on a daily basis if you have nerve damage or poor blood flow.
- **Keep the blood flowing to your feet.** Take breaks when riding on the tractor for long periods of time. Wiggle your toes and move your ankles up and down for 5 minutes, two or three times a day. Don't cross your legs for long periods of time. Don't smoke.
- Alcohol-based products dry out the skin, causing cracking or peeling. Do not use these because they can create a potential site for infection.
- Use softening creams only when your skin is at risk of cracking or peeling.
- Use the thinnest dressing possible if you must cover an abrasion. An abrasion caused by pressure will get worse if you add a bulky dressing.
- To eliminate pressure sores, see your prosthetist if you gain more than 5 pounds, and do not wear the prosthesis for extended periods of time without taking occasional breaks.³

If you have diabetes or think you might, please consult your physician or other appropriate healthcare provider.

The MS AgrAbility Project helps agricultural workers who have disabilities by providing information on assistive technology, equipment and workplace modifications, and safe practices regarding physical and mental limitations.

Visit us online
msucares.com/safety/agrability

For more information, call (601) 736-8251

Helpful Web Sites
www.msdh.state.ms.us
www.cdc.gov
www.diabetes.org
www.oandp.org
www.amputee-coalition.org

Care for the Residual Limb

The physical demands on a farmer are increased if that person is working with a prosthesis. The residual limb is completely, or sometimes partially, encased in an airtight socket. This restricts air flow and sweat evaporation.

When your acidic, salty sweat dries, it forms tiny crystals like sandpaper on your skin. This is an irritant. If the skin is not cleaned, bacteria can grow and infect broken skin.

What Can You Do?

- Wash the residual limb with a mild or antibacterial soap and rinse well at least once a day. Use water that is lukewarm or room temperature. Test the water with your elbow or a thermometer. It should be between 90 and 100 °F.
- Daily wash everything that comes in contact with your skin (for example, socks, nylon sheaths, silicone suction cups, sockets, and gel inserts) with a mild or antibacterial soap and rinse well. Follow the manufacturer's instructions closely.

References

¹ www.cdc.gov/diabetes/faq/basics.html

² www.msdh.state.ms.us

³ www.amputee-coalition.org/first_step/firststepv2_s3a02.html

⁴ Journal of the American Podiatric Medical Association, August 1997

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