

# Diabetic Complications and Amputation Prevention



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People with diabetes are prone to having foot problems, often because of two complications of diabetes: nerve damage (neuropathy) and poor circulation. Neuropathy causes loss of feeling in your feet, taking away your ability to feel pain and discomfort, so you may not detect an injury or irritation. Poor circulation in your feet reduces your ability to heal, making it hard for even a tiny cut to resist infection.

Having diabetes increases the risk of developing a wide range of foot problems. Furthermore, with diabetes, small foot problems can turn into serious complications.

## Diabetes-related Foot and Leg Problems

**Infections and ulcers (sores) that don't heal.** An ulcer is a sore in the skin that may go all the way to the bone. Because of poor circulation and neuropathy in the feet, cuts or blisters can easily turn into ulcers that become infected and won't heal. This is a common – and serious – complication of diabetes and can lead to a loss of your foot, your leg, or your life.

**Corns and calluses.** When neuropathy is present, you can't tell if your shoes are causing pressure and producing corns or calluses. Corns and calluses must be properly treated or they can develop into ulcers.

**Dry, cracked skin.** Poor circulation and neuropathy can make your skin dry. This may seem harmless, but dry skin can result in cracks that may become sores and can lead to infection.

**Nail disorders.** Ingrown toenails (which curve into the skin on the sides of the nail) and fungal infections can go unnoticed because of loss of feeling. If they are not properly treated, they can lead to infection.

**Hammertoes and bunions.** Nerve damage affecting muscles can cause muscle weakness and loss of tone in the feet, resulting in hammertoes and bunions. If left untreated, these deformities can cause ulcers.

**Charcot foot.** This is a complex foot deformity. It develops as a result of loss of sensation and an undetected broken bone that leads to destruction of the soft tissue of the foot. Because of neuropathy, the pain of the fracture goes unnoticed and the patient continues to walk on the broken bone, making it worse. This disabling complication is so severe that surgery, and occasionally amputation, may become necessary.

**Poor blood flow.** In diabetes, the blood vessels below the knee often become narrow and restrict blood flow. This prevents wounds from healing and may cause tissue death.

## What Your Foot and Ankle Surgeon Can Do

Your foot and ankle surgeon can help wounds heal, preventing amputation. There are many new surgical techniques available to save feet and legs, including joint reconstruction and wound healing technologies. Getting regular foot checkups and seeking immediate help when you notice something can keep small problems from worsening. Your foot and ankle surgeon works together with other health care providers to prevent and treat complications from diabetes.

## Your Proactive Measures

You play a vital role in reducing complications. Follow these guidelines and contact your foot and ankle surgeon if you notice any problems:

- **Inspect your feet daily.** If your eyesight is poor, have someone else do it for you. Inspect for:
  - *Skin or nail problems:* Look for cuts, scrapes, redness, drainage, swelling, bad odor, rash, discoloration, loss of hair on toes, injuries, or nail changes (deformed, striped, yellowed or discolored, thickened, or not growing).
  - *Signs of fracture:* If your foot is swollen, red, hot, or has changed in size, shape, or direction, see your foot and ankle surgeon immediately.

## Diabetic Complications and Amputation Prevention *continued*



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- **Don't ignore leg pain.** Pain in the leg that occurs at night or with a little activity could mean you have a blocked artery. Seek care immediately.
- **Nail cutting.** If you have any nail problems, hard nails, or reduced feeling in your feet, your toenails should be properly trimmed.
- **No "bathroom surgery."** Never trim calluses or corns yourself, and don't use over-the-counter *medicated* pads.
- **Keep floors free of sharp objects.** Make sure there are no needles, insulin syringes, or other sharp objects on the floor.
- **Don't go barefoot.** Wear shoes, indoors and outdoors.
- **Check shoes and socks.** Shake out your shoes before putting them on. Make sure your socks aren't bunched up.
- **Have your circulation and sense of feeling tested.** Your foot and ankle surgeon will perform tests to see if you've lost any feeling or circulation.

### When Is Amputation Necessary?

Even with preventative care and prompt treatment of infection and complications, there are instances when amputation is necessary to remove infected tissue, save a limb, or even save a life. ■

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This information has been prepared by the Consumer Education Committee of the American College of Foot and Ankle Surgeons, a professional society of over 6,000 foot and ankle surgeons. Members of the College are Doctors of Podiatric Medicine who have received additional training through surgical residency programs.

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