

With an estimated 2.3 million Canadians currently living with diabetes and approximately 14-24 per cent of those at risk to developing a foot ulcer that will result in the amputation of a foot or leg, the Pedorthic Association of Canada is urging Canadians with the disease to make footcare a daily priority.<sup>1</sup>

Long term complications in people with diabetes frequently manifest in foot problems such as infections and ulcerations that can lead to amputation. In fact, foot problems are the leading cause of hospitalization for Canadians living with the disease.

“The majority of foot problems diagnosed in people with diabetes could have been avoided through daily footcare and proper shoe selection. Many people with diabetes have reduced circulation or sensation in their feet and are not able to feel if something in the shoe or the shoe itself is irritating their foot causing wounds or ulcers. With this in mind, it is vital for them to visually examine their feet and have their shoes professionally fitted rather than relying on how their feet ‘feel’ to avoid foot problems,” said Paul Lucas, 2008 President of the Pedorthic Association of Canada and a Canadian Certified Pedorthist.



Canadian Certified Pedorthists are orthotic and footwear experts. Pedorthists (C. Ped (C)) are one of the few healthcare professionals trained in the assessment of lower limb anatomy and biomechanics. With specialized education and training in the design, manufacture, fit and modification of foot orthotics and footwear, Pedorthists help to alleviate pain, abnormalities and debilitating conditions of the lower limbs and feet that if left untreated could result in limited mobility.

According to Lucas, neuropathy, which is the loss of sensation in the foot, and decreased circulation known as vascular disease are the leading causes of infection and ulceration in those living with diabetes. “A number of people with diabetes often miss the warning signs of possible infection or ulceration because they believe if they are not experiencing pain or discomfort that there isn’t a problem. And, if they only see a minor skin irritation on the foot, they tend to ignore it - not believing it could get worse and lead to other complications. They don’t understand that decreased circulation hinders the body’s ability to heal itself leaving them vulnerable to infection and ulceration that can ultimately lead to amputation.”

The Canadian Diabetes Association ([www.diabetes.ca](http://www.diabetes.ca)) recommends that all people with diabetes should be instructed on proper footcare and have foot examinations at least once a year to avoid the risk of amputation. Foot examinations should include an assessment of any structural abnormalities of the foot such as feet that lean excessively to one side, causing friction between the side of the foot and the shoe, signs of neuropathy and vascular disease, and evidence of any ulcerations and/or infections.

Along with regular foot examinations, a daily footcare routine is equally vital to help maintain the health of the feet and protect against foot problems that could lead to amputation.

The Pedorthic Association of Canada recommends the following daily footcare tips for people with the disease:

- Do a daily visual foot inspection, be alert for redness, swelling, broken skin, sores or bleeding. See a doctor immediately if any of these problems arise.
- Wear proper fitting shoes around the house and outdoors to protect feet from injury.
- Wash feet with soap and warm water everyday, but do not soak them.
- Avoid heat pads or hot water bottles even though the feet might get cold easily because with a lack of sensation it is easy to burn the feet if the water is too hot.
- Avoid socks with heavy seams, as they can cause irritation of the skin and lead to breakdown or ulceration.
- Do not wear tight, constrictive socks or clothing that can limit blood flow to the extremities.

Canadian Certified Pedorthists are trained to troubleshoot shoe fit issues for people with diabetes and help to reduce the risk of amputation by assessing structural features of the foot. Additionally, through orthoses and shoe modifications, pedorthists are able to help alleviate the effects of lower limb and foot abnormalities to help prevent foot problems before they begin.

Shoe selection is equally important as daily footcare in helping to safeguard the feet against foot problems. The Pedorthic Association of Canada recommends the following shoe fitting tips for people with diabetes:

- Have shoes fitted by a trained specialist such as a Canadian Certified Pedorthist.
- Key features for footwear include soft uppers (everything located above the insole of the shoe including laces, tongue, etc.) with minimal seams, firm but cushioned soles, removable insoles, a strong heel counter (the hard piece of material located at the back of the shoe) and a rockered sole.
- Avoid restrictive footwear such as high heels with pointed toes or shoes that are narrow in style.
- When buying a new pair of shoes, it is good practice to remove the insole from the shoe and stand on it to see if the foot overlaps the insole, indicating that the shoe is too narrow or short for the foot.
- There should be a full finger width between the end of the longest toe and the end of the shoe.
- Avoid seams over the toe area of the shoes.
- If there is a problem with lower limb swelling, graduated compression stockings can help control swelling and maintain the fit of shoes over the course of a day.

Through regular foot examinations and by following the tips outlined in these daily footcare and shoe selection tips, those living with diabetes can better maintain the health of their feet and live a more healthy life.

<sup>1</sup>Complications: Footcare & the Trouble with Ulcers, Timothy B Kalla D.P.M, FACFAS. Canadian Diabetes Association