

Wounds Canada Develops Infographic to Increase Awareness of Diabetic Foot Complications

The Burden of Diabetic Foot Complications

Foot complications, such as ulcers and amputations, are leading causes of morbidity in patients with diabetes mellitus. The lifetime risk of developing a foot ulcer for diabetic patients may be as high as 25%, but this statistic could be drastically lowered through simple preventative measures. Most severe foot ulcers are caused by minor trauma that is left untreated, and these can often lead to amputation. Foot injuries can be easily identified at early stages with proper surveillance—before they become potentially catastrophic health problems. Unfortunately, early identification and intervention are not nearly as prevalent in Canada as they should be, resulting in an unacceptable rate of serious ulceration and amputation across the country.

There are currently three major challenges with diabetic foot complications:

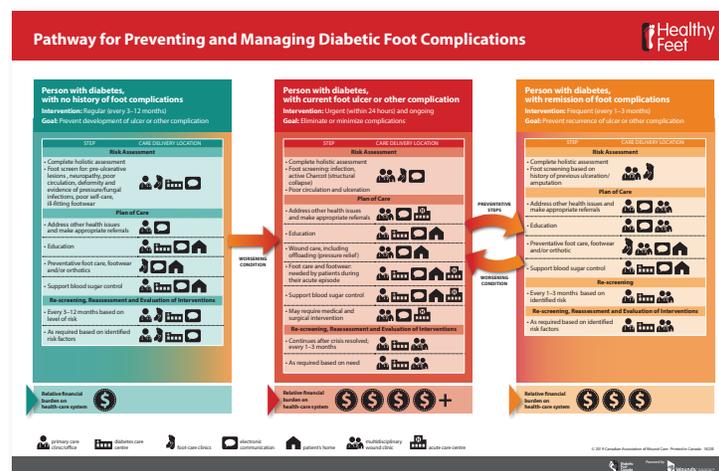
- Patients with diabetes lack the awareness and education to recognize the importance of daily foot inspections that identify foot

changes and minor trauma, and then to act on the knowledge by contacting an appropriate health-care professional.

- Minor foot injuries or changes in persons with diabetes are not viewed as serious enough to cause alarm among health-care professionals. This is due to lack of awareness, as well as lack of funding and policies to support preventative interventions at early stages. As a result, patients don't get the treatment they need in time to avoid the serious consequences that often accompany untreated or poorly treated foot trauma.
- Canadian health-care systems are generally not set up to support prevention activities, meaning minor problems become major problems before any health-care interventions take place. In the area of diabetic foot care, policy makers

lack knowledge not only of how early interventions can save limbs and lives, but also of the significant cost-savings associated with early intervention and prevention.

Fortunately, there are solutions. Many hospitalizations, amputations and



deaths could be prevented if patients with diabetes and health-care professionals learn to recognize how easily diabetic foot injuries can spiral out of control and lead to ulceration and amputation, and then act on that knowledge, and if health systems implement policies and provide appropriate funding to support their activities. In addition, the provinces and territories would save millions in direct and indirect costs.

Diabetic Foot Canada Task Force

To address this deficit in awareness, knowledge and funding, a group of interested stakeholders formed the Diabetic Foot Canada Task Force. The task force comprises representatives from national diabetes-, wound-care- and foot-care-related associations; regional wound care clinicians with multidisciplinary backgrounds; and patients. The group has met to discuss the topic of diabetic foot complications, including the scope of the problem and solutions to the highest priority challenges. This unique collaboration unites professionals and patients from across the country with one common goal: to reduce diabetes-related foot complications, preventable amputations and loss of life for people living with diabetes in Canada.

Development of the Diabetic Foot Enabler

The Diabetic Foot Canada Task Force identified multiple barriers to the implementation of effective diabetic foot care across Canada and agreed to develop an infographic representing a pathway for managing diabetic foot complications. The intention was for the infographic to outline the most important aspects of care—which are often overlooked—and present them in a way that is understandable to all members of Canadian society, whether or not they have a health-care background. Upon completion of the pathway infographic, all organizations and individuals with an interest in this area, including those who were not members of the task force, would be free to use the document to engage in discussions with policy

makers, politicians, clinicians, health-care administrators, patients and the public.

The task force developed a draft infographic with input from the supporting organizations, clinical experts and patients living with diabetes. The completed document was then reviewed by a separate group of experts, Wounds Canada's National Strategy Committee members, who represent all areas of Canada and include patients, clinicians from a range of disciplines, researchers and communications specialists. In all, some 38 individuals provided initial input and review. The result is an easy-to-read infographic (see following pages) that highlights the key components for the prevention and management of foot complications for all Canadians diagnosed with diabetes.

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Pathway for Preventing and Managing Diabetic Foot Complications



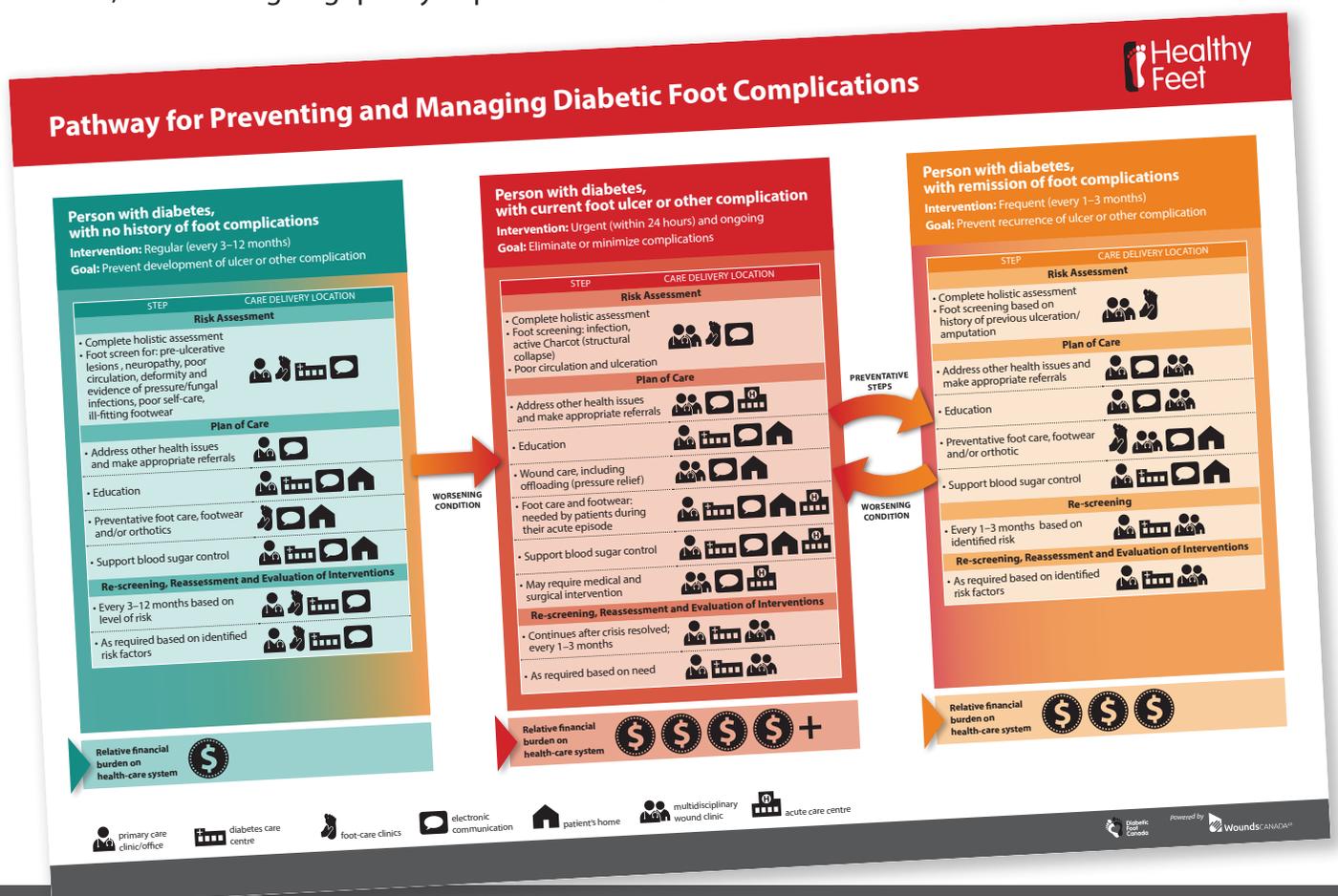
Diabetic foot wounds are serious, debilitating and are considered one of the most feared complications of diabetes. They are also the leading cause of amputations in Canada, with a five-year mortality rate as high as 50%. Recognizing that 85% of amputations can be prevented, the Canadian Diabetic Foot Task Force recommends:

All persons with diabetes receive

1. affordable and timely access to the medications, devices, education and care necessary for achieving optimal diabetes control and preventing serious complications such as amputation
2. access to publicly funded services and devices to prevent and treat foot ulcers and avoid amputation, including preventative foot care, foot care education, professionally fitted footwear and devices and timely referrals to multidisciplinary teams

All health regions/agencies

1. prevent and manage foot complications by providing a well-defined referral pattern, and by co-ordinating care and communication between health-care professionals who support people with diabetes as part of a multi-disciplinary team
2. publish, on an annual basis, reliable data on diabetes-related foot care, using internationally recognized metrics, to assist ongoing quality improvement efforts

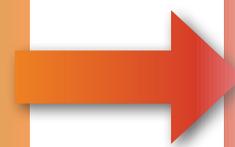


Person with diabetes, with no history of foot complications

Intervention: Regular (every 3–12 months)

Goal: Prevent development of ulcer or other complication

STEP	CARE DELIVERY LOCATION
Risk Assessment	
<ul style="list-style-type: none"> • Complete holistic assessment • Foot screen for: pre-ulcerative lesions, neuropathy, poor circulation, deformity and evidence of pressure/fungal infections, poor self-care, ill-fitting footwear 	
Plan of Care	
<ul style="list-style-type: none"> • Address other health issues and make appropriate referrals 	
<ul style="list-style-type: none"> • Education 	
<ul style="list-style-type: none"> • Preventative foot care, footwear and/or orthotics 	
<ul style="list-style-type: none"> • Support blood sugar control 	
Re-screening, Reassessment and Evaluation of Interventions	
<ul style="list-style-type: none"> • Every 3–12 months based on level of risk 	
<ul style="list-style-type: none"> • As required based on identified risk factors 	



WORSENING CONDITION

Person with complications

Intervention: Regular (every 3–12 months)

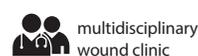
Goal: Eliminate complications

<ul style="list-style-type: none"> • Complete holistic assessment • Foot screen for: pre-ulcerative lesions, neuropathy, poor circulation, deformity and evidence of pressure/fungal infections, poor self-care, ill-fitting footwear 	
<ul style="list-style-type: none"> • Address other health issues and make appropriate referrals 	
<ul style="list-style-type: none"> • Education 	
<ul style="list-style-type: none"> • Wound care and offloading 	
<ul style="list-style-type: none"> • Foot care needed by their acute care centre 	
<ul style="list-style-type: none"> • Support blood sugar control 	
<ul style="list-style-type: none"> • May require surgical intervention 	
Re-screening, Reassessment and Evaluation of Interventions	
<ul style="list-style-type: none"> • Continue every 1–3 months 	
<ul style="list-style-type: none"> • As required based on identified risk factors 	

Relative financial burden on health-care system



Relative financial burden on health-care system



Person with diabetes, with current foot ulcer or other complication

Intervention: Urgent (within 24 hours) and ongoing

Goal: Eliminate or minimize complications

STEP	CARE DELIVERY LOCATION
Risk Assessment	
<ul style="list-style-type: none"> Complete holistic assessment Foot screening: infection, active Charcot (structural collapse) Poor circulation and ulceration 	
Plan of Care	
<ul style="list-style-type: none"> Address other health issues and make appropriate referrals 	
<ul style="list-style-type: none"> Education 	
<ul style="list-style-type: none"> Wound care, including offloading (pressure relief) 	
<ul style="list-style-type: none"> Foot care and footwear: needed by patients during their acute episode 	
<ul style="list-style-type: none"> Support blood sugar control 	
<ul style="list-style-type: none"> May require medical and surgical intervention 	
Re-screening, Reassessment and Evaluation of Interventions	
<ul style="list-style-type: none"> Continues after crisis resolved; every 1–3 months 	
<ul style="list-style-type: none"> As required based on need 	

WORSENING CONDITION

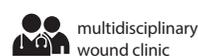
PREVENTATIVE STEPS

WORSENING CONDITION

Relative financial burden on health-care system



Relative financial burden on health-care system



Person with diabetes, with remission of foot complications

Intervention: Frequent (every 1–3 months)

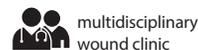
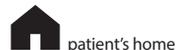
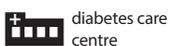
Goal: Prevent recurrence of ulcer or other complication

STEP	CARE DELIVERY LOCATION
Risk Assessment	
<ul style="list-style-type: none"> • Complete holistic assessment • Foot screening based on history of previous ulceration/ amputation 	
Plan of Care	
<ul style="list-style-type: none"> • Address other health issues and make appropriate referrals 	
<ul style="list-style-type: none"> • Education 	
<ul style="list-style-type: none"> • Preventative foot care, footwear and/or orthotic 	
<ul style="list-style-type: none"> • Support blood sugar control 	
Re-screening	
<ul style="list-style-type: none"> • Every 1–3 months based on identified risk 	
Re-screening, Reassessment and Evaluation of Interventions	
<ul style="list-style-type: none"> • As required based on identified risk factors 	

PREVENTATIVE STEPS

WORSENING CONDITION

Relative financial burden on health-care system



+ Powerful results in stalled wounds

Use of **PICO® Single Use Negative Pressure Wound Therapy System (sNPWT)** reduced wound area, depth and volume compared with traditional negative pressure wound therapy (tNPWT) in patients with venous leg ulcers (VLUs) and diabetic foot ulcers (DFUs)

51% more closed wounds at 12 weeks with PICO sNPWT than with tNPWT (45 vs 22%; $p=0.002$; ITT population)¹

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References: 1. Kirsner R, et al. Randomized controlled trial on the efficacy and acceptance of a single-use negative pressure wound therapy system versus traditional negative pressure wound therapy in the treatment of lower limb chronic ulcers (VLU and DFU). Poster presented at Wild on Wounds National Wound Conference. September 12–15, 2018. Poster 18.

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