# Happy Feet: Feeling good about diabetic foot screening!

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# **Diabetic Foot Risk Factors**

- Peripheral neuropathy (loss of protective sensation)
- Previous ulcerations or amputations
- Structural deformity
- Limited joint mobility

- Peripheral arterial disease
- Microvascular complications
- High A1C levels
- Onychomycosis

## Neuropathy

- 80% of patients with foot ulcers have neuropathy
- Neuropathy is multimodal:
  - **Sensory**: loss of protective sensation.
  - Motor: atrophy in intrinsic musculature collapses arches and cause toe deformities.
  - Autonomic: decreased perspiration results in dry, cracked skin.

# Elements of the Foot Screen:

History	Diabetes complications, lifestyle factors, occupation, previous foot ulcers, medications.
Inspection	Skin, nails, deformity, calluses, ulcers, footwear.
Palpation	Temperature, pulses, range of motion at toes and ankle.
Special Tests	Neuropathy screening, vascular assessments (ABI, PPG).

# **ABI and Toe Pressures**

	ABPI	PPG	ТВІ
Normal	0.8 to 1.2	> 80 mmHg	> 0.6
Moderate ischemia	0.5 to 0.8	50-80 mmHg	0.4-0.6
Severe ischemia	< 0.5	< 50 mmHg	<0.4

## Healable wounds: ABI greater than 0.5, toe pressure greater than 50 mmHg.

Adapted from:

-Burrows C, et al. Best Practice Recommendations for the Prevention and Treatment of Venous Leg Ulcers Update 2006. *Wound Care Canada*. 2006;4(1):45-55.

-Sibbald, RG et al. Best Practice Recommendations for Preparing the Wound Bed. *Wound Care Canada*. 2006;4(1): 15-29.

## 60 Second Foot Screen

#### Canadian Association of Wound Care INLOW'S **60-second Diabetic Foot Screen** www.cawc.net SCREENING TOOL Patient Name: Clinician Signature: Date: Look – 20 seconds Left Foot Right Foot Care Recommendations 1. Skin 0 = intact and healthy 1 = dry with fungus or light callus 2 = heavy callus build up 3 = open ulceration or history of previous ulcer 2. Nails

2. Nails			
0 = well-kept			
1 = unkempt and ragged			
2 = thick, damaged, or infected			
3. Deformity			
0 = no deformity			
1 = mild deformity			
2 = major deformity			
4. Footwear			
0 = appropriate			
1 = inappropriate			
2 = causing trauma			
Touch – 10 seconds	Left Foot	Right Foot	Care Recommendations
5. Temperature – Cold	1		
0 = foot warm			
1 = foot is cold			
6. Temperature – Hot			
0 = foot is warm			
1 = foot is hot			
7. Range of Motion			
0 = full range to hallux			
1 = hallux limitus			
2 = hallux rigidus			
3 = hallux amputation			
Assess – 30 seconds	Left Foot	Right Foot	Care Recommendations
Assess – 30 seconds	Left Foot	Right Foot	Care Recommendations
8. Sensation – Monofilament Testing	Left Foot	Right Foot	Care Recommendations
8. Sensation – Monofilament Testing 0 = 10 sites detected	Left Foot	Right Foot	Care Recommendations
8. Sensation – Monofilament Testing 0 = 10 sites detected 2 = 7 to 9 sites detected	Left Foot	Right Foot	Care Recommendations
8. Sensation – Monofilament Testing 0 = 10 sites detected 2 = 7 to 9 sites detected 4 = 0 to 6 sites detected	Left Foot	Right Foot	Care Recommendations
8. Sensation – Monofilament Testing 0 = 10 sites detected 2 = 7 to 9 sites detected 4 = 0 to 6 sites detected 9. Sensation – Ask Four Questions:	Left Foot	Right Foot	Care Recommendations
8. Sensation - Monofilament Testing         0         10 sites detected           2 - 7 to 9 sites detected         4         0 to 6 sites detected           9. Sensation - Ask Four Questions:         1. Are your feet ever numb?	Left Foot	Right Foot	Care Recommendations
8. Sensation – Monofilament Testing 0 – 10 sites detected 2 – 7 to 9 sites detected 4 – 0 to 6 sites detected 9. Sensation – Ask Four Questions: i. Are your feet ever numb? ii. Do they ever tingle?	Left Foot	Right Foot	Care Recommendations
Sensation - Monofilament Testing     0 = 10 sites detected     2 - 7 to 9 sites detected     4 = 0 to 6 sites detected     Sensation - Ask Four Questions:     i. Are your feet ever numb?     ii. Do they ever burn?	Left Foot	Right Foot	Care Recommendations
8. Sensation – Monofilament Testing 0 – 10 sites detected 2 – 7 to 9 sites detected 4 – 0 to 6 sites detected 9. Sensation – Ask Four Questions: i. Are your feet ever numb? ii. Do they ever fungl? iii. Do they ever feel like insects are crawling on them?	Left Foot	Right Foot	Care Recommendations
Sensation - Monofilament Testing     0 - 10 sites detected     2 - 7 to 9 sites detected     4 - 0 to 6 sites detected     9. Sensation - Ask Four Questions:     i. Are your feet ever numb?     ii. Do they ever timgle?     iii. Do they ever burn?     iv. Do they ever feel like insects are crawling on them?     0 - no to all questions	Left Foot	Right Foot	Care Recommendations
8. Sensation – Monofilament Testing 0 – 10 sites detected 2 – 7 to 9 sites detected 4 – 0 to 6 sites detected 9. Sensation – Ask Four Questions: i. Are your feet ever numb? ii. Do they ever fungl? iii. Do they ever feel like insects are crawling on them?	Left Foot	Right Foot	Care Recommendations
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8. Sensation - Monofilament Testing     0 = 10 sites detected     2 - 7 to 9 sites detected     4 = 0 to 6 sites detected     9. Sensation - Ask Four Questions:     i. Are your feet ever numb?     ii. Do they ever burn?     iii. Do they ever burn?     0 - no to all questions     2 - yes to any of the questions	Left Foot	Right Foot	Care Recommendations
8. Sensation - Monofilament Testing 0 - 10 sites detected 2 - 7 to 9 sites detected 4 - 0 to 6 sites detected 9. Sensation - Ask Four Questions: i. Are your feet ever numb? ii. Do they ever tingle? iii. Do they ever feel like insects are crawling on them? 0 - no to all questions 2 - yes to any of the questions 10. Pedal Pulses 0 - present 1 - absent	Left Foot	Right Foot	Care Recommendations
8. Senastion – Monofilament Testing 0 = 10 sites detected 2 = 7 to 9 sites detected 4 = 0 to 6 sites detected 9. Senastion – Ask Four Questions: i. Are your feet ever numb? ii. Do they ever fuell ike insects are crawling on them? 0 = not cal questions 2 = yes to any of the questions 10. Fedal Pulses 0 = present 1 = absent 11. Dependent Rubor	Left Foot	Right Foot	Care Recommendations
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Sensation - Monofilament Testing     0 - 10 Sites detected     2 - 7 to 9 Sites detected     4 - 0 to 6 Sites detected     9. Sensation - Ask Four Questions:     i. Are your feet ever numb?     ii. Do they ever fingle?     iii. Do they ever fingle?     iii. Do they ever fingle like insects are crawling on them?     0 - no tal questions     2 - yes to any of the questions     0 - present     1 - absent     11. Dependent Rubor     0 - no     1 - yes     12. Erythema	Left Foot	Right Foot	Care Recommendations
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Screening intervals for foot ulcers and/or limb-threatening complications. Use the highest score from left or right foot. Screening intervals may vary based on clinical judgement and individual patient factors.

Score = 0 to 5  $\rightarrow$  recommend screening yearly

Score = 6 to  $11 \rightarrow$  recommend screening every 6 months Score = 12 to  $17 \rightarrow$  recommend screening every 3 months

Score = 12 to 17  $\rightarrow$  recommend screening every 3 months Score = 18 to 23  $\rightarrow$  recommend screening every 1 to 3 months

http://cawc.net/index.php/ resources/60-second-diabetic-footscreen/

# Patient education: CAWC

### **Steps for Healthy Feet**

#### General Health

- 1 Control your blood glucose levels.
- 2 If you smoke, quit.
- 3 Exercise daily as directed by your healthcare professional.

#### **Caring for Your Feet**

- Look for signs of redness or blisters on your feet. This shows your shoe may not fit properly.
- 2 Wash your feet daily. Dry well, especially between your toes. Apply a moisturizer to your feet but not between your toes.
- 3 Do not soak your feet.
- 4 If you are unable to reach your toes or do not have feeling in your feet, have a healthcare professional trim your toenails for you.

#### Footwear

- Shake out your shoes before you put them on.
- 2 Wear shoes at all times, indoors and out.
- 3 Buy shoes with closed toes as they protect your feet from injury.
- 4 Change your socks every day.
- 5 Buy shoes late in the day as feet tend to swell.
- 6 Have your shoes professionally fitted by a footwear specialist.

#### I will take care of my feet and make the changes needed to help keep my feet healthy!



Make the most out of your visit with your healthcare professional by asking these 3 questions:

- 1. What is my main problem?
- 2. What do I need to do?
- 3. Why is it important for me to do this? National Patient Safety Foundation

#### Sign up online at www.cawc.net/diabetesandhealthyfeet to receive your FREE monthly tip.

Visit us to read personal stories about foot care for people with diabetes, find a foot care professional, find the answers to frequently asked questions and more!



#### Canadian Association of Wound Care

- 642 King St., West Suite 200 Toronto, ON M5V 1M7
- Tel: 416-485-2292 Toll-Free: 1-866-474-0125 Email: healthyfeet@cawc.net Web site: www.cawc.net/diabetesandhealthyfeet

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This brochure is a guide only and should not be used for any diagnostic or therapeutic decisions. Specific medical concerns should be directly handled by a qualified healthcare professional.



## Diabetes, Healthy Feet



How healthy are YOUR feet?

## Patient handout: www.cawc.net

## Patient education: CAWC

Are your patients at risk for diabetes-related foot complications?

6. RANGE OF MOTION:

Check the hallux range.

potential neuropathy.

Do they tingle? Do they ever burn?

or perfusion.

crawling on them?

9. PEDAL PULSES: Are pulses

11. ERYTHEMA: This may be

indicative of inflammation,

infection or Charcot changes.

8. SENSATION: Ask 4 questions

Are your feet ever numb?

• Do they feel like insects are

present, absent or bounding?

**10.DEPENDENT RUBOR:** This may

be indicative of poor arterial flow

to detect potential neuropathy:

7. SENSATION: Use a monofilament

to test 10 sites on the foot to detect

Remember to... Look, Feel and Ask.

- 1. SKIN: Is the skin dry or calloused? Are there open areas such as blisters or ulcers?
- 2. NAILS: Are nails well kept or unkempt?
- 3. DEFORMITY: Have there been changes to the bony structure of the foot? They may be indicative of Charcot.
- 4. FOOTWEAR: Does the patient's footwear fit properly? Are the shoes appropriate for the activity for which they are being used?
- 5. TEMPERATURE: Is the foot cool? This may be indicative of arterial disease.
  - Is the foot hot? This may be indicative of inflammation, infection or Charcot.

Frequency of assessment is dependent on findings. \* Based on Inlow 60-Second Foot Screen For Best Practice Recommendations for the Prevention, Diagnosis and Treatment of diabetic foot ulcers, please visit: www.cawc.net

For more information about cardiovascular disease and diabetes, please visit: diabetes.ca/documents/ about-diabetes/Synopsis\_Final.pdf

To purchase monofilaments, visit the CAWC Boutique: http://cawc.net/ index.php/resources/store

For patient education on topics covered in this brochure, refer to the patient brochure or visit www.cawc.net/diabetesandhealthyfeet

### Canadian Association of Wound Care

Canadian Association of Wound Care 45 Charles St. East, Suite 300 Toronto, ON MAY 152 Tel: 416-485-2292 Toll-Free: 1-866-474-0125 Email: healthyfeet@cow.net Web site: www.cawc.net/diabetesandhealthyfeet

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### Diabetes, Healthy Feet AND Your Patients



How healthy are YOUR patients' feet?

### Clinician brochure: www.cawc.net

# Patient Education: CDA

Diabetes & You > Healthy Living Resources > Foot Care > Signs of Foot Problems		Tips	Know the signs			
Signs of Foot P		ealth Itural Resources	Know the signs (click photos to enlarge)	Are your feet	What can you do?	
Living with Type 1 Diabetes >	Prevention is the best medicine. Being able to identify signs of foot problems can go a long way in preventing	Management		<ul> <li>Numb, painful or</li> </ul>	Control your blood glucose	
Living with Type 2 Diabetes >	complications. Have your health care professional check your feet AT LEAST one to two times per year or more if required. When to see your doctor	Charge of My s >		tingling? • Do your feet feel like blocks of wood?	<ul> <li>(sugar) levels.</li> <li>Have a health-care professional trim your toenails and care for the skin on your feet.</li> <li>Have your shoes</li> </ul>	
Living with Gestational Diabetes >		• •	54500			
Living with Prediabetes >	If you have any corns (thick or hard skin on toes), calluses (thick skin on bottom of feet), in-grown toenails, warts or slivers, have them treated by your doctor or a foot care specialist (such as a podiatrist,	ens & Diabetes >	town and			
Complications >		ncy & Diabetes >				
Healthy Living Resources 🔗	If you have any swelling, warmth, redness or pain in your legs or feet, see your doctor or foot specialist right away.	our Rights >			professionally fitted.	
Blood Glucose & Insulin Dental Care	Have your bare feet checked by your doctor at least once a year. In addition, ask your doctor to screen you for neuropathy and loss of	rogram or Event >		<ul> <li>Changing shape?</li> </ul>	<ul> <li>Avoid too much walking</li> </ul>	
Diet & Nutrition Exercise	circulation at least once a year. Take your socks off at every diabetes-related visit to your doctor and ask him or her to inspect your feet.			<ul> <li>Is one foot</li> </ul>	Visit your health-care	
Foot Care			tran the	different than the other?	professional as soon as possible.	
				Any change is	<ul> <li>Have your shoes</li> </ul>	

http://www.diabetes.ca/diabetes-and-you/healthy-living-resources/foot-care/signs-of-foot-problems

important.

professionally

# CDA foot care handout

## Canadian Diabetes Foot care: a step toward good health

#### Diabetes and your feet

Diabetes can cause nerve damage (also known as diabetes peripheral neuropathy - DPN) and poor blood flow or circulation to the legs and feet(also known as peripheral arterial disease - PAD). As a result, people with diabetes are less likely to feel a foot injury, such as a blister or cut. Diabetes can make these injuries more difficult to heal. Unnoticed and untreated, even small foot injuries can quickly become infected, potentially leading to serious complications.



Foot problems are very common in people with diabetes and can lead to serious complications. This fact sheet provides basic information about how diabetes affects your feet and what you can do to keep your feet healthy. Contact the Canadian Diabetes Association for additional resources.

#### Daily foot care

As always, prevention is the best medicine. A good daily foot care routine will help keep your feet healthy.

Start by assembling a foot care kit containing nail clippers, nail file, lotion, and a non-breakable hand mirror. Having everything you need in one place makes it easier to follow this foot care routine every day:

- 1. Wash your feet in warm (not hot) water, using a mild soap. Don't soak your feet, as this can dry your skin.
- 2. Dry your feet carefully, especially between your toes.
- 3. Thoroughly check your feet and between your toes to make sure there are no cuts, cracks, ingrown toenails, blisters, etc. Use a hand mirror to see the bottom of your feet, or ask someone else to check them for vou
- 4. Clean cuts or scratches with mild soap and water, and cover with a dry dressing suitable for sensitive skin.
- 5. Trim your toenails straight across and file any sharp edges. Don't cut the nails too short.
- 6. Apply a good lotion to your heels and soles. Wipe off excess lotion that is not absorbed. Don't put lotion between your toes, as the excessive moisture can promote infection.
- 7. Wear fresh clean socks and well-fitting shoes every day. Whenever possible, wear white socks - if you have a cut or sore, the drainage will be easy to see.

OVER >

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http://guidelines.diabetes.ca/CDACPG/ media/documents/patient-resources/ foot-care.pdf

# Shoe shopping tips!





- Go to reputable stores
- Measure EVERY time
- Measure feet when standing
- Shop at end of day
- Fit shoes to largest foot

http://cawc.net/images/uploads/downloads/Proper%20Shoe %20Fit%20English.pdf