

Patient Name:

Clinician Signature:

ID number:

Date:

Look – 20 seconds	Score		Care Recommendations
	Left Foot	Right Foot	
<b>1. Skin</b> 0 = intact and healthy 1 = dry with fungus or light callus 2 = heavy callus build up 3 = open ulceration or history of previous ulcer			
<b>2. Nails</b> 0 = well-kept 1 = unkempt and ragged 2 = thick, damaged, or infected			
<b>3. Deformity</b> 0 = no deformity 2 = mild deformity 4 = major deformity			
<b>4. Footwear</b> 0 = appropriate 1 = inappropriate 2 = causing trauma			
Touch – 10 seconds	Left Foot	Right Foot	Care Recommendations
<b>5. Temperature – Cold</b> 0 = foot warm 1 = foot is cold			
<b>6. Temperature – Hot</b> 0 = foot is warm 1 = foot is hot			
<b>7. Range of Motion</b> 0 = full range to hallux 1 = hallux limitus 2 = hallux rigidus 3 = hallux amputation			
Assess – 30 seconds	Left Foot	Right Foot	Care Recommendations
<b>8. Sensation – Monofilament Testing</b> 0 = 10 sites detected 2 = 7 to 9 sites detected 4 = 0 to 6 sites detected			
<b>9. Sensation – Ask 4 Questions:</b> i. Are your feet ever numb? ii. Do they ever tingle? iii. Do they ever burn? iv. Do they ever feel like insects are crawling on them? 0 = no to all questions 2 = yes to any of the questions			
<b>10. Pedal Pulses</b> 0 = present 1 = absent			
<b>11. Dependent Rubor</b> 0 = no 1 = yes			
<b>12. Erythema</b> 0 = no 1 = yes			
<b>Score Totals =</b>			

Screening for foot ulcers and/or limb-threatening complications. Use the highest score from left or right foot.

Score = 0 to 6 → recommend screening yearly

Score = 7 to 12 → recommend screening every 6 months

Score = 13 to 19 → recommend screening every 3 months

Score = 20 to 25 → recommend screening every 1 to 3 months

Comments:

# Instructions for Use

**General Guidelines:** This tool is designed to assist in screening persons with diabetes to prevent or treat diabetes-related foot ulcers and/or limb-threatening complications. The screen should be completed on admission of any person with diabetes and then repeated as directed by risk and clinical judgment. **Do not confuse patient visits with patient screening.** Your patient may require frequent and regular visits for routine care but complete the screening as indicated or as relevant based on clinical judgment.

## Specific Instructions:

**Step 1:** Explain screening to the patient and have them remove their shoes, socks from both feet.

**Step 2:** Remove any dressings or devices that impair the screening.

**Step 3:** Review each of the parameters for each foot as listed in the Inlow's 60-second Diabetic Foot Screen and select the appropriate score based on patient's status. (An amputation may affect the score on the affected limb.)

**Step 4:** Once the screen is completed determine care recommendations based on patient need, available resources and clinical judgement.

**Step 5:** Use the highest score from either the left or right foot to determine recommended screening intervals.

**Step 6:** Set up an appointment for the next screening based on screening score and clinical judgement.

## Parameter Review

### 1. Skin

Assess the skin on the foot: top, bottom and sides including between the toes.

- 0 = skin is intact and has no signs of trauma. No signs of fungus or callus formation
- 1 = skin is dry, fungus such as a moccasin foot or interdigital yeast may be present. Some callus build-up may be noted
- 2 = heavy callus build-up
- 3 = open skin ulceration present

### 2. Nails

Assess toenails to determine how well they are being managed either by the patient or professionally.

- 0 = nails well-kept
- 1 = nails unkempt and ragged
- 2 = nails thick, damaged or infected

### 3. Deformity

Look for any bony changes that can put the patient at significant risk and prevent the wearing of off-the-shelf footwear

- 0 = no deformity detected
- 2 = may have some mild deformities such as dropped metatarsal heads (MTHs) (the bones under the fat pads on the ball of the foot). Each MTH corresponds to the toe distal to it, so there is a 1<sup>st</sup> MTH at the base of the first toe etc. Bunions/Charcot may also be considered a deformity as well as deformities related to trauma.
- 4 = Amputation

### 4. Footwear

Look at the shoes that the patient is wearing and discuss what he or she normally wears.

- 0 = shoes provide protection, support and fit the foot. On removal of the footwear there are no reddened areas on the foot
- 1 = shoes are inappropriate do not provide protection or support for the foot.
- 2 = shoes are causing trauma (redness or ulceration) to the foot either through a poor fit or a poor style (eg., cowboy boots).

### 5. Temperature – cold

Does the foot feel colder than the other foot or is it colder than it should be considering the environment? This can be indicative of arterial disease.

- 0 = foot is of "normal" temperature for environment.
- 1 = foot is cold – compared to other foot or compared to the environment

### 6. Temperature – hot

Does the foot feel hotter than the other foot or is it hotter than it should be considering the environment? This can be indicative of an infection or Charcot changes.

- 0 = foot is of "normal" temperature for environment
- 1 = foot is hot – compared to other foot or compared to the environment

### 7. Range of Motion

Move the first toe back and forth – plantar flex and dorsiflex.

- 0 = first toe (hallux) is easily moved
- 1 = hallux has some restricted movement
- 2 = hallux is rigid and cannot be moved
- 3 = hallux amputated

### 8. Sensation – Monofilament testing

Using the 5.07 monofilament, test the sites listed. Do not test over heavy callus.

- digits: 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>
- MTH: 1<sup>st</sup>, 3<sup>rd</sup>, 5<sup>th</sup>
- midfoot: Medial, Lateral
- heel
- top (dorsum) of foot

And then score out of 10:

- 0 = 10 out of 10 sites detected
- 2 = 7 to 9 out of 10 sites detected
- 4 = 0 to 6 out of 10 sites detected

### 9. Sensation – Questions

Ask the following four questions:

- i. Are your feet ever numb?
- ii. Do they ever tingle?
- iii. Do they ever burn?
- iv. Do they ever feel like insects are crawling on them?
  - 0 = answered No to all four questions
  - 2 = answered Yes to one or more of the four questions

### 10. Pedal pulses

Palpate (feel) the dorsalis pedis pulse located on the top of the foot. If unable to feel the pedal pulse feel for the posterior tibial pulse beneath the medial malleolus.

- 0 = pulse present
- 1 = pulse absent

### 11. Dependent rubor

Pronounced redness of the feet when the feet are down and pallor when the feet are elevated. This can be indicative of arterial disease.

- 0 = no dependent rubor
- 1 = dependent rubor present

### 12. Erythema

Look for redness of the skin that does not change when the foot is elevated. This can be indicative of infection or Charcot changes.

- 0 = no redness of the skin
- 1 = redness noted

**Reminder:** Strategies for the prevention and management of diabetic foot ulcers need to consider more than just the results from a foot screen. It is important that the health-care professional completes a holistic assessment that also monitors lipids, hypertension, glucose and patient activity and exercise. **Persons with diabetes who are cognitively impaired or have diseases such as end-stage renal disease are at higher risk and may need more frequent screening than indicated.**

## Interpreting Results

Inlow's 60-second Diabetic Foot Screen has been designed to allow the clinician to screen persons with diabetes to prevent or treat diabetes-related foot ulcers and/or limb-threatening complications. By combining the results from different parameters identified with Inlow's 60-second Diabetic Foot Screen, the clinician can identify pathologies and/or care deficits.

Parameters												Indications	
1	2	3	4	5	6	7	8	9	10	11	12		
■	■		■										<b>Self Care Parameters:</b> High scores in parameters 1, 2 and 4 → indicative of self care deficit.
			■			■							<b>Integument Parameters:</b> Moderate scores in parameters 4 and 7 → indicative of callous formation.
■					■							■	High scores in parameters 1, 6 and 12 → indicative of infected ulcer.
	■											■	High scores in parameters 2, 6 and 12 → indicative of infected nails.
				■						■	■		<b>Arterial Flow Parameters:</b> High scores in parameters 5, 10 and 11 → indicative of peripheral arterial disease.
							■	■					<b>Sensation Parameters:</b> High scores in parameters 8 and 9 → indicative of loss of protective sensation or neuropathy.
		■					■	■					<b>Boney Changes Parameters:</b> High scores in parameters 3, 8 and 9 → indicative of Charcot changes.

## Determining Risk

Inlow's 60-second Diabetic Foot Screen can also assist in determining patient risk. By reviewing the results from Inlow's 60-second Diabetic Foot Screen, the clinician can use the International Working Group on the Diabetic Foot (IWGDF) – Risk Classification System to identify a risk category for their patients.

**Step 1:** Complete Inlow's 60-second Diabetic Foot Screen by assessing both feet on every patient with diabetes.

**Step 2:** Using the IWGDF Risk Classification System, identify which category your patients falls into.

### International Working Group on the Diabetic Foot (IWGDF) – Risk Classification System (Modified<sup>1</sup>)

Risk category	Criteria
0	Normal – no neuropathy
1	Loss of protective sensation
2a	LOPS and deformity
2b	Peripheral arterial disease
3a	Previous hx of ulceration
3b	Previous hx of amputation

1. Lavery LA, Peters EJJ, Williams JR, Murdoch JR, Hudson A, Lavery DC. Reevaluating the Way We Classify the Diabetic Foot. Restructuring the diabetic foot risk classification system of the International Working Group on the Diabetic Foot. *Diabetes Care* 31:154–156, 2008.

## Considerations Based on Clinical Settings

- Acute Care:** Due to the high turnover of patients in acute care, clinicians needs to ensure that the initial assessment goes with the patient to their next level of care.
- Long Term or Residential Care:** Patients with diabetes may have mobility issues and are in bed or wheelchairs. Feet still may become traumatized by the use of inappropriate footwear even if they are non-weight bearing.
- Dialysis Unit:** Some dialysis units may wish to augment this tool with toe pressures and blood work, depending of their clinical support.
- Home or Community Care:** Clinicians can use this tool for communication with their patients, each other or other departments, such as specialized clinics.
- Foot Clinic:** Foot clinic standards of assessment will be at a higher standard. However, this document is a good communication tool with other clinicians that may be caring for the person with diabetes.

## More Information

For more information on the assessment and management of the diabetic foot, refer to:

- Best Practice Recommendations for the Prevention, Diagnosis and Treatment of Diabetic Foot Ulcers:* Update 2010 at [www.cawc.net](http://www.cawc.net)
- RNAO Best Practice Guideline *Reducing Foot Complications for Persons with Diabetes* at [www.rnao.org](http://www.rnao.org)
- RNAO Best Practice Guideline *Assessment and Management of Foot Ulcers for People with Diabetes* at [www.rnao.org](http://www.rnao.org)
- The International Working Group on the Diabetic Foot* at [www.iwgdf.org](http://www.iwgdf.org)
- Diabetes, Healthy Feet and You* at [www.cawc.net/index.php/public/feet/](http://www.cawc.net/index.php/public/feet/)