Screening for the high risk diabetic foot: A 60-Second Tool (2012) <sup>©</sup> Sibl	bald
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Name:					
ID#: Phone #:	CHECK BOTH FEET				
DOB (dd/mm/yy):/	·/	(Circle correct response)			
Gender: M 🗆 F 🗆 Years wi	th diabetes:	"YES" on either foot = HIGH RISK			
Ethnicity: Black 🗆 Asian 🗆	Caucasian 🗆 Mixed 🗆 Other 🗆				
Date of Exam (dd/mm/yy):	//	LF	LEFT RIGHT		
HISTORY	1. Previous ulcer	NO	YES	NO	YES
	2. Previous amputation	NO	YES	NO	YES
PHYSICAL EXAM	3. Deformity	NO	YES	NO	YES
	4. Absent pedal pulses (Dorsalis Pedis and/ or Posterior Tibial)	NO	YES	NO	YES
FOOT LESIONS	5. Active ulcer	NO	YES	NO	YES
<i>Remember to check</i> $4^{m}$ <i>and</i> $5^{th}$ <i>web spaces/nails for</i>	6. Ingrown toenail	NO	YES	NO	YES
fungal infection and check	7. Calluses (thick plantar skin)	NO	YES	NO	YES
for inappropriate footwear.	8. Blisters	NO	YES	NO	YES
	9. Fissure (linear crack)	NO	YES	NO	YES
<b>NEUROPATHY</b> <i>MORE THAN 4/10 SITES</i> <i>LACKING FEELING =</i> <b>"YES"</b>	<ul> <li>10. Monofilament exam</li> <li>(record negative reaction): <ul> <li>a) Right/10 negatives</li> <li>(≥ 4 negatives = Yes)</li> </ul> </li> <li>b) Left/10 pagatives</li> </ul>	NO	YES	NO	YES
	$(\geq 4 \text{ negatives} = \text{Yes})$				
		Total # of	YES:	Total # of	YES:
PLAN a) POSITIVE SCREEN- Results when there are one or more "Yes" responses. <u>Refer to a foot specialist or team</u> <u>for prevention, treatment and follow up.</u> (Bony deformity, current ulcer, absent pulse are most urgent). These individuals are at increased risk of a foot ulcer and/or infection. Patients should be educated on what changes to observe and report, while waiting for the specialist appointment.  Patient of PLOP					
<ul> <li>b) NEGATIVE SCREEN- Results when there are all "No" responses. <u>No referral required.</u> Educate patient to report any new changes to their healthcare provider and re-examine in 1 year. One Year Date for Re-Examination (dd/mm/yy):/</li> </ul>					
Completed By: Date:					
<b>Additional Note:</b> See reverse side for recommendations from the <i>International Diabetes Federation, &amp; International Working Group on the Diabetic Foot.</i>					

Local referral patterns may vary depending on expertise and available resources.

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#### **General Instructions:**

This diabetic foot screening tool is designed to identify individuals with high-risk diabetic feet. This screening tool is a simplified 60-second assessment for each foot to be implemented by any healthcare provider. Preparation involves having a 5.07g monofilament available and asking patient to remove their shoes and socks.

Normal screening findings are indicated as "No" (not requiring referral) and abnormal screening findings are indicated as "Yes" (requiring referral). Generation of a list of local reputable foot specialists and/or teams for referring is recommended.

#### Screening involves:

- Inform patient about the simplified 60-second screening and explain the reason for the examination.
- Fill in patient's demographic data in top left section of screening tool.
- Assess both feet. Circle either a "Yes" or "No" response for questions 1-10.
- Any "Yes" response requires follow up or a referral to a foot specialist and/or team.

Question	"Yes" Response
1	"Yes", if previous ulcer from history is observed: Ask the patient and assess both lower legs and feet for the presence of a healed ulcer as evidenced by scar tissue.
2	"Yes", if previous amputation of digit(s), foot or limb is observed.
3	"Yes", if deformity and/or abnormality in shape or structure of either foot is observed (bony prominences/
	hammer toes).
4	"Yes", if absent pedal pulses (palpate Dorsalis Pedis and if absent check Posterior Tibial).
	A yes answer requires absence of both pulses.
5	"Yes", if active ulcer(s) present: Openings in the skin with a dermal or deeper base.
6	"Yes", if ingrown toenail present. Inspect distal corners for embedded nail and/or thickened nail fold skin.
7	"Yes", if callus present (thick plantar skin): Assess and inspect for presence of thick areas of keratin on the
	bottom or sides of feet and toes.
8	"Yes", if blister(s) present: Observe for fluid (serum, blood or pus) under intact skin surface.
9	"Yes", if fissure (linear crack). Observe for a linear break with dermal base or deeper base.
10	"Yes", if Monofilament Exam identified 4 or more negative reactions (lack of feeling): Follow the
	monofilament exam instructions below. Each foot is examined separately.



Steps for Monofilament Test for Neuropathy:

- Show and touch monofilament to patient's arm or upper leg.

- Ask the patient to close their eyes and say yes when they feel the monofilament.
- Touch monofilament until filament bends in a letter "c" shape, assessing all 10 areas on diagram (Do not test over calluses, scars or ulcers)

- Lack of feeling (4 or more out of 10) - indicates a negative reaction = Neuropathy = "YES" on screening tool

Foot Risk Classification and Follow-up Guide						
Assessment Findings ↓	RISK	Follow Up (mths)	Prof. Nail Care	Orthopaedic Shoes	Orthotics + Diabetic Socks	Activity
No Neuropathy	0	12	-	Well fitting	Well fitting shoes	As able
Neuropathy	1	6	+/-	Professional fit	Custom full contact	As able, monitor, guided by foot exam
Deformity	2a	3-4	+/-	+/- custom fit	Custom full contact	Avoid excessive walking, √ non-impact exercises
Peripheral Vascular Disease	2Ъ	3-4	+	Professional fit	Soft full contact	Dependent on ischemic pain, √ non-impact exercises, or as recommended by vascular team consult
Ulcer Hx or Active ulcer	3a	1-2	+	Professional fit	Custom fitted	Activity dependant on exam, √ non-impact exercises
Hx Amputation	3b	1-2	+	Special clinic (assessment) Modified footwear	Specialized clinic: amputation/prostheses, +/- walking aid	Based on tissue tolerance, $\sqrt{non-impact}$ exercises

Modified from International Diabetes Federation, International Working Group on the Diabetic Foot, 2008

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There is also a more detailed "Inlow's version of the 60 Second Tool" offered online in both English & French by Wounds Canada: https://www.woundscanada.ca/health-care-professional/resources-health-care-pros/foot-screen

## APPENDIX 2. Common Foot Pain in Adults 3,27,29

Location or Disorder	Differential Diagnosis and/or Clinical Features		
Forefoot			
First MTP joint	Bunion, hallux rigidus/varus, gout, turf toe		
Plantar surface distal metatarsals of MTP joints	Metatarsalgia, Morton callus, MTP callus, Morton neuroma, intertarsal bursitis		
Pain over fifth (small toe) MTP	Varus deviation or rotation, bunionette		
Plantar MTP/dorsal PIP	Hammertoe, contracture, lesser toe deformity (abnormal toe crossover/rotation)		
Midfoot			
Medial			
Navicular	Posterior tibialis tendinopathy; navicular stress fracture		
Flexor digitorum/hallucis longus tendons	<ul> <li>Tendinopathies: Tenderness posterior to medial malleolus, and:</li> <li>digitorum – obliquely across sole of foot to base of distal phalanges of lateral toes</li> <li>hallucis – on plantar surface of great toe</li> </ul>		
Tarsal tunnel (tibial nerve compression at level of the tarsal tunnel)	<ul> <li>Tarsal tunnel syndrome:</li> <li>Pain and numbness in posteromedial ankle and heel (may extend to distal sole and toes). Worsens with standing, walking or running.</li> <li>Examination positive for Tinel sign</li> <li>Muscle atrophy may occur if severe</li> </ul>		
Lateral			
Peroneal tendon	Peroneal tendinopathy: Tenderness in lateral calcaneus along path to base of the fifth metatarsal		
Lateral calcaneus (sinus between anterolateral calcaneus and talus)	Sinus tarsi syndrome: Pain in lateral calcaneus and ankle Worse after exercise or when walking on uneven surfaces May have history of repeated ankle sprains or hyper-pronation of foot		
Rear foot			
Plantar fasciitis	"Start up pain" – pain with first steps in morning or following long periods of rest. Tenderness on medial process of calcaneal tuberosity and along plantar fascia		
Calcaneal stress fracture	History of an increase in weight-bearing activity or change to harder working surfaces; Pain with activity progressively worsens to include pain at rest; Diagnosed with plain film imaging after 2–3 weeks of symptoms		
Baxter's Nerve entrapment (compression of the inferior calcaneal nerve)	Sensations of burning, tingling or numbness on the heel surface Occasionally preceded by increased activity or trauma Causes: altered foot biomechanics ("flat foot") calcaneal enthesopathies, plantar fasciits <sup>43</sup>		
Heel Fat Pad Atrophy (Heel pad syndrome)	Deep, bruise-like pain, usually middle of heel; thinning of the fat pad		
Achilles tendinopathy	Achy, occasionally sharp pain; worsens with increased activity or pressure to area; Tenderness along Achilles tendon; Occasional palpable prominence from tendon thickening		
Haglund deformity (Pump bump)	Exostosis on the superior aspect of the posterior calcaneal tuberosity which may become inflamed and painful from local friction or pressure; common in distance runners		
Retrocalcaneal bursitis	Pain, erythema, swelling between the calcaneus and Achilles tendon Tender to direct palpation		

### Sources:

**1)** Ayub A, Yale SH, Bibbo C. Common foot disorders. Clin Med Res 2005;3:116-9.

- 2) Tu P, Bytomski JR. Diagnosis of heel pain. Am Fam Physician 2011;84:909-16.
- **3)** Rio E, Mayes S, Cook J. Heel pain: a practical approach. Aust Fam Physician 2015;44:96-101.