

A stylized map of New Zealand is shown in light blue, with decorative swirls in a darker blue extending from the map. The text is overlaid on this background.

New Zealand Society

NZSSD

for the Study of Diabetes

**Podiatrists - Diabetes Foot
Assessment & Treatment Form
New Zealand Society for the Study of Diabetes**

Welcome to the Podiatrists Diabetes Foot Assessment and Treatment Form

This form has been developed by the New Zealand Society for the Study of Diabetes (NZSSD) - Podiatrists Specialist Interest Group (PodSIG) for use in a New Zealand context. We acknowledge that this form has been adapted from an Auckland University of Technology - Podiatry assessment form. This form is intended as a guide only. Ideally it should be embedded into an established electronic management system, and only implemented in its current paper-based format when this is not available.

It was highlighted during the development of the '[Foot Screening & Risk Stratification Tool](#)' (NZSSD, 2014) that there was a need for an appropriate podiatrist specific assessment form to sit alongside this framework. Our aim is that general practice will adopt the existing Risk Stratification tool and that podiatry services will adopt this Diabetes Foot Assessment & Treatment Form. Together this will improve the interface between podiatry services and general practice. In order to ensure we have included the relevant information and the most up to date evidence based practice this form has undergone many changes, several local trials, and subject matter expert critical analyses.

Our vision for this guideline and its effects on the health system:

1. Positive outcomes and improvement of foot health status for people with diabetes in New Zealand.
2. Reduction of the health burden caused by diabetes related lower limb amputations in New Zealand.
3. Standardisation of community podiatry services, and Podiatrist workforce development across New Zealand.
4. Provide funders further insight and understanding of podiatry services; to be used in collaboration with [Quality Standards for Diabetes Care Toolkit](#) (MOH, 2014)– [Standard 11](#) (MOH, 2014).
5. Assist in the fulfilment of the [National Diabetes Work Programme](#) (MOH, 2014), and the [Living Well with Diabetes](#) (MOH, 2015) plan.

It is important for funders and other health care providers to understand the role of podiatry in the management of diabetes. Podiatrists have specialised skills for the management of diabetes related foot complications necessary to reduce the associated morbidity and mortality.

We hope you find the tool helpful.

Kind Regards

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PODIATRISTS - DIABETES FOOT ASSESSMENT & TREATMENT FORM

Please fill in blank spaces or circle applicable areas.

PATIENT	Name				NHI			Sex	M	F	Date of last assessment			Today's date		
	Address				DOB			Age			DIABETES HISTORY					
					Phone			Mobile								
	GP				Ethnicity											
	Clinic				Occupation											
MEDICAL HISTORY	Recent Hospital Admission - last 6mths				Reason											
	History of events		CVD PAD ESRF CVA RA COAD HTN Gout Cancer													
	Current Medication															
	Medical Warnings															
	Other Medical															
Diagnosed				Type	T1DM		T2DM									
Treatment		Insulin		OHA		Diet										
Random BGL		Today														
Latest HbA1c				Date												
eGRF				ACR												
Retinal Screening		>2yrs		<2yrs												
Other		Retinopathy		HTN		Other										
Smoking History		Non-smoker		Smoker		ABC										
		Ex-smoker		ABC												

RISK FACTORS	HbA1c > 65mmol/mol														Low perception of risk		Obesity		Dyslipidaemia		Visual impairment		Physically Impaired		Mental Health	
	Nil whanau support														Unable to self-care		Geographically isolated		Cognitive impairment		DNAs		Non-concordant		Alcohol/drug use	
	Exercise		yes		no		Details																			
	Amputation		Left		AKA		BKA		TMA		1		2		3		4		5							
			Right		AKA		BKA		TMA		1		2		3		4		5							
	Ulceration		Details												Leg revascularisation		Details									
	Osteomyelitis		Details												Charcot foot		Details									
Daily Foot Inspection		yes		no		Daily Footwear Inspection		yes		no		Regular Moisturising of Feet		yes		no										

VASCULAR	Intermittent Claudication		yes		no		<100m		Note if <100m refer to Edinburgh Scale															
	Rest / Nocturnal Pain		yes		no		Continuous		Intermittent		Site(s)		Perfusion		CRT		Left		secs		Right		secs	
	Pedal hair present		yes		no		Details												Oedema		Details			
	Venous Insufficiency		Left		Varicosity		Telangiectasia		Haemosiderosis		Lipodermatosclerosis		DVT hx		Venous ulceration									
			Right		Varicosity		Telangiectasia		Haemosiderosis		Lipodermatosclerosis		DVT hx		Venous ulceration									
	Pulses		Left		DP		Present		Absent		Right		DP		Present		Absent							
			Left		PT		Present		Absent		Right		PT		Present		Absent							
	Doppler		Left		DP		Triphasic		Biphasic		Monophasic		Right		DP		Triphasic		Biphasic		Monophasic			
			Left		PT		Triphasic		Biphasic		Monophasic		Right		PT		Triphasic		Biphasic		Monophasic			
	ABPI		Left		DP		A		B		I		Right		DP		A		B		I			
Left			PT		A		B		I		Right		PT		A		B		I					
		> 1.3 possible		1.0 – 1.3 normal		0.8 - 1.0 mild PAD		moderate PAD		0.5 > severe PAD														

NEUROLOGICAL	Neuropathy Symptom Score (NSS)		A 4 point scale to determine neuropathy Yes = 1 / No = 0 (1 - 4 = neuropathy)														Total			
	Symptoms of unsteadiness in walking		1		0		Do you have burning, aching pain or tenderness of your legs or feet?										1		0	
	Do you have prickling sensations at your legs or feet?		1		0		Do you have places of numbness on your legs or feet?										1		0	
	Neuropathy Disability Score (NDS)		A score of 10 = complete LOPS. ≥ 6 indicates increased risk of neuropathic foot ulceration														Total			
	Vibration Perception Threshold		Can detect vibration 128hz tuning fork = 0														Left			
			Abnormal = 1														Right			
	Temperature Perception		Can detect hot or cold temperature = 0														Left			
			Abnormal = 1														Right			
	Sharp or blunt (Pin prick)		Can distinguish sharp/not sharp = 0														Left			
			Abnormal = 1														Right			
Achilles Reflex		Present = 0 Present with reinforcement = 1														Left				
		Absent per side = 2														Right				
Monofilament 10g		Left		1st apex		5th apex		1st mtpj		3rd mtpj		5th mtpj		heel		< 11 sites = LOPS				
		Right		1st apex		5th apex		1st mtpj		3rd mtpj		5th mtpj		heel		/12 LOPS yes no				

BIOMECHANICAL	Foot Deformity Score (FDS)	6 point scale (1 point for each characteristic, on each side) - Score of 3 or above indicates foot deformity as a risk factor and please indicate if on L or R or B limbs											
	Small muscle wasting		Charcot foot		Bony prominence		Limited joint mobility						
	Hammer or claw toes		Prominent metatarsal heads				TOTAL						
	ROM	WNL (within normal limits) R (restricted) H (hyper-mobile)	Left	Ankle		STJ		MTJ		1st MTPJ		1st Ray	
			Right	Ankle		STJ		MTJ		1st MTPJ		1st Ray	
	Muscular Assessment	Passive	Left	DF	PF	Inversion	Eversion						
			Right	DF	PF	Inversion	Eversion						
		Active	Left	DF	PF	Inversion	Eversion						
Right			DF	PF	Inversion	Eversion							
Comments					Muscle atrophy								
Walking aids					Gait analysis								

SKIN	Anhydrosis	Maceration	Heloma Durum/ Molle/ Millaire	Fissures	Hyperkeratosis	Lesions	Tinea Pedis	Ulcer	Other
	Specify								

NAILS	Normal	Dystrophic	Onychogryphosis	Onychomycotic	Onychocryptosis	Onychochauxis	Involuted	Other
	Specify							

FOOTWEAR	Style & materials				Upper fixation	Lace	Velcro	Other
	Appropriate	Inappropriate	Suitable motion control		Suitable cushioning		Abnormal wear pattern	
	Comment							
	Orthotic referral	yes	no	Previously referred	yes	no	Comment	
	Prosthetics	yes	no	Walking aid / devices	yes	no	Comment	

TREATMENT PLAN & GOALS	Patient Goals											
	Patient Centred Care & Treatment Plan											
	Other notes											

ACTION PLAN	Risk category*	● Active Foot Disease ● High Risk Foot ● Moderate Risk Foot ● Low Risk Foot									
	Patient informed of risk category	Patient advised on risk management & treatment plan				Education resources provided to patient					
	Currently attending	Hospital Foot Clinic		Community Podiatrist		Private Podiatrist		Patient self-cares		Nil	
	Refer to	Hospital Foot Clinic		Community Podiatrist		Private Podiatrist		Vascular Service		District Nursing	
	Other	Specify									
	Action Plan (list)										

SIGN	Name				Next assessment	
	Signature				Discharge Date	
	Clinic				Phone	

*Refer to NZSSD Risk Stratification Framework

Podiatrists Form

Explanation and Guide:

Diabetes History

- Diagnosed – The year the patient was diagnosed with Diabetes Mellitus
- T1DM- Type 1 Diabetes Mellitus
- T2DM - Type 2 Diabetes Mellitus
- OHA - Oral hypoglycaemic agents
- BGL – Blood glucose level
- eGFR – estimated glomerular filtration rate
- ACR – Albumin : Creatinine Ratio

Chronic Kidney Disease (CKD) is an important risk factor for foot health, and a contributing factor in the development of peripheral neuropathy. CKD stage 3 or more is included as a risk factor for diabetic foot disease. There are several lab tests and medical condition codings used by general practice that provide information about the person's renal status. We recommend podiatrists refer to this [BPAC guide](#) for further education and clarification (Best Practice Journal, 2015).

- Retinal screening - Elapsed time since last retinal screening. Retinal screening is important for people with diabetes, and the current guideline [Primary Care Handbook 2012](#) (MOH, 2012) recommends biannual retinal screen. Locally agreed referral criteria and pathways may differ from this time frame.
- HTN – Hypertension
- Smoking History – ABC is to be circled if the Podiatrist is trained in smoking cessation and has completed this with patient. A Podiatrist is able to complete this training and carry out this process via the online education resource. Please refer to:
 1. [ABC/Quit Cards](#) (Nurses for Smokefree Aotearoa, 2010)
 2. [Smoking Cessation](#) (MOH, 2012)

Medical History

- CVD – Cardiovascular disease
- PAD – Peripheral Arterial Disease
- ESRF – End stage Renal failure (ESRD – End stage renal disease) Refer to [BPAC guide](#) (Best Practice Journal, 2015) for further information.
- CVA – Cardiovascular accident
- RA – Rheumatoid Arthritis
- COAD – Chronic obstructive airway disease
- HTN – Hypertension
- Other Medical – Other medical conditions to include condition here if it is not applicable to risk factor categories directly below, or history of events above

Risk Factors

- HbA1c greater than 65 mmol/mol is associated with increased risk of diabetes related complications including diabetic foot disease
- Mental Health - to be circled if there is any classified mental health problem that impacts on the patient's ability to self care
- DNA's – repetitive history of 'Did not arrive' to health professional appointments
- Non-concordant - (previously: non-compliant)
- Alcohol/Drug use problem, or consume over [Alcohol intake guideline](#) (MOH, 2016), and/ or non-prescription drug use. [Low Risk Alcohol Drinking Advice](#) (Health Promotion Agency) may be a suitable resource for some people; others will need to discuss what is appropriate for them with their GP
- Exercise is a broad area, our recommendation is that a Podiatrist ask about the person's physical activity, details may include: type, frequency, intensity and duration. If suitable reflect back on this in Patient Goals/ Treatment Plan. When appropriate encourage suitable exercise recommendations to aid in management of Hyperglycaemia. We recommend Podiatrists familiarise themselves with local services, people, and other health professionals who can provide support in the area of physical activity and mobility. There are many national resources and guidelines relating to Diet and Physical activity provided by the MOH, please refer to their [website](#).

- AKA – Above knee amputation
- BKA – Below knee amputation
- TMA – Trans-metatarsal amputation
- 12345 – Circle applicable amputation of corresponding digit
- Ulceration, Osteomyelitis, and Charcot foot – applicable if there is a historic or current problem

Vascular

- PAD - Peripheral arterial disease (or PVD). This [NICE](#) document is an appropriate guideline for management of PAD (National Institute for Health and Care Excellence, 2014).
- Intermittent Claudication – [Edinburgh Scale](#) (Royal College of General Practitioners, 2002).
- CRT – Capillary refill time
- DVT – Deep vein thrombosis
- Doppler assessment and Ankle Brachial Pressure Index (ABPI). We recommend podiatrists view this [resource](#) for education around Doppler assessment (Huntleigh Healthcare Limited, 2002).

Neurological

- NSS – Neuropathy symptom score (or DNS – Diabetic neuropathy symptom score), not to be confused with NDS (Neuropathy disability score). [See table 4 of Cochrane review](#) – Scoring systems to screen for diabetic peripheral neuropathy (Zhan, et al., 2014).
- NDS – Neuropathy disability score. [See table 5 of Cochrane review](#) – Scoring systems to screen for diabetic peripheral neuropathy (Zhan, et al., 2014).

Biomechanical

- We have long known that Peripheral Neuropathy, PAD, and foot deformity are the 3 main risk factors for diabetes related foot ulceration; however there is limited literature surrounding the impacts of foot deformity and its relationship to diabetic foot disease. We have included the Foot Deformity Score (FDS) in this assessment to enable quantification of this problem, and to elaborate on what qualifies as a foot deformity risk factor for the high risk foot. This measure has been used in [Australian Guidelines](#) for the management of diabetes related foot complications (Commonwealth of Australia, 2011).
- We acknowledge that this biomechanical assessment is not an in-depth biomechanical assessment, however has been simplified to ensure the assessment form is not too long. We have sought to include what the most relevant information is for those with diabetes, and what biomechanical factors most commonly contribute to foot ulcerations. Podiatrist may include further information on the 'Other' box, for example other WB and NWB examinations, Foot Posture Index, Gait Analysis, Jacks test, etc.
- ROM – Range of Motion
- STJ – Subtalar Joint
- MTJ – Midtarsal Joint
- 1st MTPJ – 1st Metatarsal phalangeal joint
- DF – Dorsiflexion
- PF – Plantarflexion
- Passive – Practitioner moves the patients limb through it's ROM
- Active – Patient moves their own foot

Skin

- Location of lesion and details in space below

Nails

- Location of problem and details in space below

Footwear

- Poor footwear in combination with foot deformity can contribute to the development of foot problems and diabetes related foot ulcerations. There is very limited literature surrounding the impacts of footwear on diabetic foot disease, and no evidence based/ suitable [Footwear Assessment Tool](#) we can use within this podiatrists assessment form. We have included some relevant footwear aspects outlined in the Footwear Assessment Tool (Menz, Bonanno, & Barton, 2009).

Treatment plan/ Goals

- Patient centred care plan to reflect on the goals, needs, and level of understanding for the individual
- Patient education provided will assist in improvement of self management and long term outcomes

Action plan

- Reflect back on NZSSD risk stratification tool and your assessment to provide suitable risk category

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