

Guidelines in support of Diabetic Foot Assessments

Completing these instructions will enable you to:

- Quickly identify the patient with current diabetic foot disease or those at risk of developing problems.
- Obtain the information needed to:
 - Make an initial diagnosis
 - Develop a treatment plan
 - Identify needs for referral to appropriate specialists
 - Schedule review appointments
 - Document the level of risk of ulceration and amputation
 - Determine the need for diabetic footwear
 - Refer for diabetes education
 - Compare future screening with this baseline information

To complete the screening examination you will need a 10 gram Monofilament. A hand held Doppler is useful however the assessment can be done without one.

Use the Podiatry Diabetic Foot Assessment Form to complete the examination.

Please note that patients who have any of the following medical problems are likely to have had diabetes for several years and to be at risk for foot problems.

- Peripheral Neuropathy
- Nephropathy
- Retinopathy
- Peripheral vascular disease
- Cardiovascular Disease

Note any redness, warmth, maceration, fissure, swelling or dryness.

Nail Condition

Note any abnormalities. Fungal nails need treatment to prevent future problems and secondary bacterial infection.

Onychogryphosis, Onychia and gross involution treated early (possibly surgery) can prevent further problems later in life when the patient has developed vascular complications.

4. HYGIENE

Good or poor? Be diplomatic when discussing daily washing.

5. NEUROLOGICAL ASSESSMENT

Sensory Neuropathy

Positive symptoms:

Ask the patient if they get any peculiar feelings in the feet.

Does patient get any numbness, pins needles (tingling), shooting pains burning etc. [differentiate between neuropathy / ischaemia / other causes]

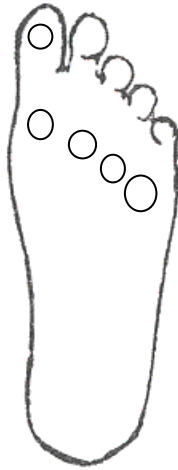
Positive symptoms are not usually a precursor to ulceration.

Negative Symptoms: IE Loss of protective sensation:

Monofilament testing

Is the best current method of predicting ulceration due to loss of protective sensation. Test on all five sites in each foot (as per the chart). Avoid callus or ulceration. If the patient feels less than eight applications (in total) of the Monofilament they are considered to have loss of protective sensation. This assumes the patient has no amputations. If a patient has an amputation clarify whether or not it is diabetic in origin. If diabetes was the main aetiology then assume the patient is at high risk anyway.

Monofilament Testing Sites:



Loss of protective sensation is a major factor in the aetiology of diabetic foot ulcers.

MOTOR NEUROPATHY

Signs are:

Claw toes, excessively high arch (since diagnosis), prominent met. heads, wasted intrinsic muscles, loss of fatty -fibro padding.

Motor neuropathy can lead to high pressure areas on the plantar aspect which develop callus which in turn may lead to ulceration if it is left untreated.

AUTONOMIC

Dry warm skin

Distended dorsal veins

Bounding pulses

6. FOOT DEFORMITY

Deformity is one of the 'Big Five' factors that lead to ulceration.

Particularly Charcot Foot, Pes Cavus, Claw toes and Prominent metatarsal heads.

All foot deformities whether minor or major need to be recorded.

7. CALLUS / CORNS

Callus and corns are caused by excessive intermittent pressure and friction and are indicative of sites of high pressure in the foot. These are potential ulcer sites therefore it is important that they are noted and arrangements made for treatment.

8. ULCER HISTORY

Any patient who has a previous ulcer will always remain At Risk.

A current ulcer indicates that the patient is at High Risk of amputation.

Take appropriate action as outlined in the Referral Pathway For Diabetic Foot Problems.

9. ORTHOSES

Patients with foot deformity resulting in callus and / or corns need effective Orhoses to relieve pressure and prevent future ulceration, especially if there is loss of protective sensation.

10.FOOT CARE

Many patients (or their carers) are able to carry out basic hygiene and nail trimming. Some need advice on proper care. Those with existing foot problems will need podiatry treatment which may involve input from a Podiatry Surgery Assistant, a Community Podiatrist or a Diabetes Specialist Podiatrist depending on their risk status.

11.FOOT WEAR

Check for fitting and appropriateness for the type of foot. Give advice when necessary. Arrange surgical shoes where ordinary shoes won't suffice because of deformity, history, or complications.

12.GENERAL APPEARANCE OF FEET AND LEGS

Is their colour :

- a) Normal
- b) Pale
- c) Cyanotic
- d) Hyperaemic
- e) Is there a dependent rubor

Oedema is a risk factor for ulceration.

Regular excercise: Is the patient active? Encourage regular walking. Explain the benefits of excercise on blood glucose levels and circulation.

Note the risk status of the patient, give them a resume of what you have found and appropriate advice depending on their risk status.

RISK STATUS CLASSIFICATION

Low Risk:	1 No neuropathy or ischaemia and no foot problems
	2 No neuropathy and/or ischaemia but has foot problem/s
Moderate Risk:	3 Neuropathy and/ or ischaemia, no foot problems
High Risk	4 Neuropathy and/ or ischaemia, with foot problems
Active Foot Disease	5 Current Ulcer and / or history of amputation

Where necessary make arrangements for further treatment or education.

Education and Advice:

Low Risk Patients

Need basic footcare advice depending on their current footcare awareness and abilities.

The importance avoiding diabetic complications through good glycaemic control must be stressed as should the need for good hygiene and daily self checks.

Everyone with diabetes needs to know the warning signs of heat , pain (?), redness and swelling and that minor foot problems can become serious if not properly treated.

Moderate Risk Patients

Need the same basic advice as those who are “Low Risk” but also need pro-active education about care of the ‘At Risk Foot’. They need to know that they are at risk of developing foot ulcers and what they can do to prevent them, the warning signs to look for and what to do if they find a problem.

High Risk Patients

Need education (as with moderate risk) plus pro-active treatment, orthoses, footwear, weighbearing gait analysis, annual review of neurological and vascular status.

Active foot disease

A current ulcer indicates that the patient is at High Risk of amputation.

Take appropriate action as outlined in the Referral Pathway For Diabetic Foot Problems. Please notify the Community Specialist Podiatrist of the foot ulcer to initiate shared care.

Refer to the Ayrshire and Arran wound management guidelines and wound dressings monographs.

Ask all patients:

- a) Do you look at your feet every day / regularly?
- b) Do you know what to look for when checking your feet ?
- c) If you find a problem do know what to do and who to contact?

Work out a management plan for the patient based on your screening assessment based on the 'Podiatry Care Pathways For Foot Health of People With Diabetes'

Management Plan

EDUCATION

- Basic foot care education
- Education for care of the at risk foot

DIAGNOSTIC STUDIES

- Vascular Lab
- Other

FOOTWEAR RECOMMENDATIONS

- None
- Trainers
- Accommodative Orthoses
- Custom Shoes

REFER TO

- General Practitioner
- Primary care podiatry
- Diabetes Specialist Team
- Orthopaedic Foot Surgeon
- Orthotist
- Dermatologist
- Vascular Surgeon
- Other.....

Schedule a follow up visit or arrange for annual review

Podiatry Service Care Programme Guidelines

We would like to acknowledge Margaret Doyle and John McCall, Podiatry Services, NHS Ayrshire and Arran for their contribution to this piece of work.