Foot care: Reducing amputation rates and improving care

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A footcare pathway for people with diabetes

Annual Foot Review

Foot examination with shoes and socks/stockings removed

- Test foot sensations using 10g monofilament or vibration
- Palpate foot pulses
- Inspect for any deformity
- Inspect for significant callus
- Check for signs of ulceration
- Ask about any previous ulceration
- Inspect footwear
- Ask about any pain

ADVISE THE PATIENT TO:

- Check their feet every day
- Be aware of loss of sensation
- Look for changes in the shape of their foot
- Not use corn removing plasters or blades
- Know how to look after their toenails
- Wear shoes that fit properly
- Maintain good blood glucose control
- Attend their annual foot review

DIABETIC FOOT RISK STRATIFICATION AND TRIAGE/IDENTIFICATION OF RISK STATUS

Risk status	DEFINITION	ACTION
ACTIVE	Presence of active ulceration, spreading infection, critical ischaemia, gangrene or unexplained hot, red, swollen foot with or without the presence of pain, painful peripheral neuropathy, acute Charcot foot*	Rapid referral to and management by a member of a Multidisciplinary Foot Team (see over). Agreed and tailored management/treatment plan according to patient needs. Provide written and verbal education with emergency contact numbers. Referral for specialist intervention when required.
HIGH	Previous ulceration or amputation or more than one risk factor present eg loss of sensation or signs of peripheral vascular disease with callus or deformity.	Annual assessment or 1–3 monthly according to need* by a specialist podiatrist or member of a foot protection team*. Agreed and tailored management/treatment plan by a specialist podiatrist or the FPT* according to patient needs. Provide written and verbal education with emergency contact numbers. Referral for specialist intervention if/when required.
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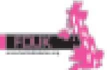
LOW	No risk factors present eg no loss of sensation, no signs of peripheral vascular disease and no other risk factors.	Annual screening by a suitably trained Healthcare Professional. Agreed self management plan. Provide written and verbal education with emergency contact numbers. Appropriate access to podiatrist if/when required.

Risk status should be documented and the patient informed.

These risk categories relate to the use of the SCI-DC foot risk stratification tool.

* NICE Guidance

Produced by the Scottish Diabetes Foot Action Group



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Foot risk classification

Active risk

High risk

Increased risk

Low risk

Derby Teaching Hospitals

Multi-disciplinary team

Orthopae surgeo

Ph

Microbiologist

Podiatrist

Evid ... it, for every ... Multi- discip ... eams (MD ... ound £ ... be

£650 million pa

East Midlands -Major amputations in patients with diabetes

Major amp/ 1000patients

1.6
1.4
1.2
1
0.6
0.4
0.2
0

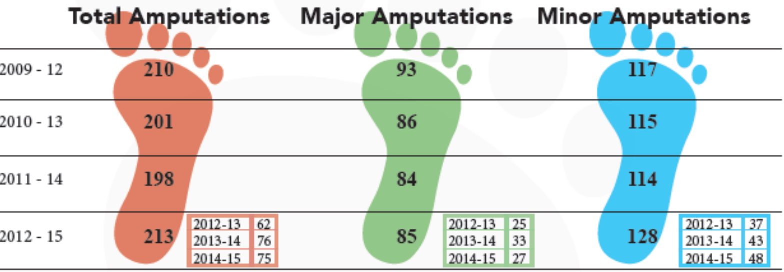
Rushcliffe
Leicester City CCG
East Leicestershire And Rutland CCG
Harwick CCG
Nottingham West
Lincolnshire West CCG
Nene CCG
North Derbyshire CCG
Lincolnshire East CCG
Nottingham City
Nottingham North & East
West Leicestershire
Newark &Sherwood CCG
South Lincolnshire
Southern Derbyshire
Corby CCG
Mansfield and Ashfield
South West Lincolnshire
Erewash CCG

NHS Foundation Trust

NHS Southern Derbyshire CCG

Diabetic Foot Amputations

Number of Amputations



	Total Amputations	Major Amputations	Minor Amputations
2009 - 12	210	93	117
2010 - 13	201	86	115
2011 - 14	198	84	114
2012 - 15	213	85	128

	Total	Major	Minor
2012-13	62	25	37
2013-14	76	33	43
2014-15	75	27	48

Amputation Rate per 1,000 adults with diabetes

	Total Amputations	England	Major Amputations	England	Minor Amputations	England
2009 - 12	2.7	2.6	1.2	1.0	1.5	1.1
2010 - 13	2.5	2.6	1.1	0.9	1.4	1.7
2011 - 14	2.3	2.6	1.0	0.8	1.3	1.8
2012 - 15	2.4 (orange)	2.6	1.0 (orange)	0.8	1.5 (green)	1.8

Hospital Stays for Diabetic Foot Disease

	Episodes of care: Number	Episodes of care: Rate per 1,000	England	Nights in hospital: Number	Nights in hospital: Rate per 1,000	England	Average LOS	England
2009 - 12	1,697	21.7	18.3	13,426	172.1	166.1	7.9	9.1
2010 - 13	1,758	21.6	18.6	13,524	165.8	165.1	7.7	8.9
2011 - 14	1,943	23.0	19.2	13,514	159.9	163.2	7.0	8.5
2012 - 15	2,172	25.0 (red)	19.8	14,110	162.2 (orange)	161.0	6.5 (green)	8.1

Key
- (green) Significantly lower than the England value
- (orange) No significant difference from the England value
- (red) Significantly higher than the England value

Data Source: Public Health England
Acknowledgement: Thanks to Public Health England for providing data analysis support

Produced October 2016 by:
NHS
East Midlands Clinical Networks

All CCGs in England

Diabetic Foot Amputations

Number of Amputations

	Total Amputations	Major Amputations	Minor Amputations
2009 - 12	19,066	6,731	12,317
2010 - 13	20,030	6,769	13,261
2011 - 14	21,125	6,758	14,367
2012 - 15	22,109	6,812	15,242

Amputation Rate per 1,000 adults with diabetes

	Total Amputations	Major Amputations	Minor Amputations
2009 - 12	2.6	1.0	1.1
2010 - 13	2.6	0.9	1.7
2011 - 14	2.6	0.8	1.8
2012 - 15	2.6	0.8	1.8

Hospital Stays for Diabetic Foot Disease

	Episodes of care		Nights in hospital		Average LOS
	Number	Rate per 1,000	Number	Rate per 1,000	
2009 - 12	134,731	18.3		166.1	9.1
2010 - 13	143,503	18.6		165.1	8.9
2011 - 14	155,353	19.2		163.2	8.5
2012 - 15	167,224	19.8		161.0	8.1

Produced October 2016 by: NHS

- Where are the problems?

PUTTING FEET FIRST

A footcare pathway for people with diabetes

Peer Reviews:

1. Mansfield and Ashfield CCG, Newark and Sherwood
2. Nottingham City Nottingham North East, North West
3. Nene and Corby

ADVISE THE PATIENT TO:

- Check their feet every day
- Be aware of loss of sensation
- Look for changes in the shape of their foot
- Not use corn removing plasters or blades
- Know how to look after their toenails
- Wear shoes that fit properly
- Maintain good blood glucose control
- Attend their annual foot review

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Risk status should be documented and the patient informed.

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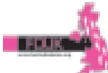

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Patient not informed of risk and/or not appropriately referred

No standardised training and competency assessments of foot screening for primary care teams

Lack of access to MDTs

Lack of capacity in MDTs

Risk status should be documented and the patient informed.

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...nual Foot Review

...th shoes and socks/...

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Vascular re-organisation

Trent Hospitals

- Chesterfield Royal Hospital
- Derbyshire Royal Infirmary
- Derby City General Hospital
- Grantham Hospital
- Kings Mill Hospital
- Lincoln County Hospital
- Nottingham City Hospital
- Queens Medical Centre
- Pilgrim Hospital

Diabetic Foot Clinic Derby Teaching Hospitals NHS FT - capacity

Foot Clinic - New Appointment Trend

Diabetic Foot Clinic Derby Teaching Hospitals NHS FT- capacity

Foot Clinic - Follow Up Trend

8000
7000
6000
5000
4000
3000
2000
1000
0

2011/12
2012/13
2013/14
2014/15

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Ask about any pain

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East Midlands Diabetic Foot Group

Low Risk

Diabetes Foot Care information and a...

Diabetes is a lifelong condition which can cause foot problems. So... because the nerves and blood vessels supplying your feet are da...

This can affect:

- the feeling in your feet (peripheral neuropathy); and
- the circulation in your feet (ischaemia).

These changes can be very gradual and you may not notice t... have your feet screened every year.

Your foot screening has shown that you do not have nerve o... so you are currently at **low risk** of developing foot complica...

Controlling your diabetes, cholesterol and blood pressure, ... year by a suitably trained professional, will help to reduce ... your feet.

If you smoke, you are strongly advised to stop. Smo... lead to amputation.

As your feet are in good condition, you will not need re...

If you follow the simple advice in this leaflet, you shou... unless you develop a specific problem.

East Midlands Diabetic Foot Group

Moderate Risk

Diabetes Foot Care Inform...

Diabetes is a lifelong condition which can ca... because the nerves and blood vessels supp...

This can affect:

- the feeling in your feet (peripheral neuro...
- the circulation in your feet (ischaemia).

These changes can be very gradual an... a foot screening and assessment from ... suit your needs.
Your screening and assessment hav... develop foot ulcers. Your podiatrist w...

- ☐ You have lost some feeling in yo...
- ☐ The circulation in your feet is re...
- ☐ Hard skin / skin changes on yo...
- ☐ The shape of your foot has ch...
- ☐ Your vision is impaired.
- ☐ You cannot look after your ...
- ☐ Other ....

If you smoke, you are strongly adv... to amputation.

East Midlands Diabetic Foot Group

NHS East Midlands Clinical Networks

High Risk

Diabetes Foot Care information and advice leaflet

Diabetes is a lifelong condition which can cause foot problems. Some of these problems can occur because the nerves and blood vessels supplying your feet are damaged.

This can affect:

- the feeling in your feet (peripheral neuropathy); and
- the circulation in your feet (ischaemia).

These changes can be very gradual and you may not notice them. This is why it is essential that every year you have your feet screened and assessed by a podiatrist. You can then agree a treatment plan to suit your needs.

Your screening and assessment have shown that there is a **high risk** that you will develop foot ulcers. Your podiatrist will tick which of the following risk factors you have.

- ☐ You have lost some feeling in your feet.
- ☐ The circulation in your feet is reduced.
- ☐ Hard skin/skin changes on your feet.
- ☐ The shape of your foot has changed.
- ☐ Your vision is impaired.
- ☐ You cannot look after your feet yourself.
- ☐ Have had an ulcer or amputation before.
- ☐ Renal dialysis
- ☐ Other..................................

Keeping good control of your diabetes, cholesterol and blood pressure will help to control these problems.

If you smoke, you are strongly advised to stop. Smoking affects your circulation and can lead to amputation.

As your feet are at **high risk**, you will need to take extra care of them. You will need regular treatment by a podiatrist. If you follow the advice and information in this leaflet, it will help you to take care of your feet between visits to your podiatrist. Hopefully it will help to reduce the problems in the future.

Risk status should be documented and the patient informed.

MOD (INCR...

LOW

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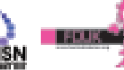

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Silhouette digital image solution

Print

System

East Midlands
Academic Health
Science Network
Igniting Innovation

Derby Teaching Hospitals NHS
NHS Foundation Trust

https://dfc.derbyhospitals.nhs.uk/SilhouetteCentral/woundassessments/06a8d031-9

NHSmail 2 Portal - Home | SilhouetteCentral

Wound

A Right Foot, Heel

Visit	Assessment
2016-11-02	14:03:26
2016-10-19	13:39:29
2016-10-05	15:05:21
2016-09-21	15:02:54
2016-09-07	15:16:00
2016-08-24	14:51:23
2016-08-10	15:25:47
2016-07-27	13:32:12

New Assessment

Reports

New Report

- Wound Assessment
  Created 2016-11-02

Images

Area:	3.3cm²	Perimeter:	79mm
Length:	24mm	Width:	20mm
Max Depth:	1mm	Mean Depth:	0mm
Volume:	0.1cm³	Captured:	2016-11-02 14:03:26

Graphs

Area | Area Reduction | Depth | Volume | Perimeter

Area cm²: 10.0, 8.0, 6.0, 4.0

Notes

Patient | Visit | Wound

Edit

Medical History

Current conditions	Stroke Disease;R Disease-C
Current conditions: Other	
Previous Right Charcot	Yes
Previous Left Charcot	Yes
Charcot comments	Hind foot calcaneal charcot b feet
Previous Amputation History	
Previous Ammputations Comments	
Previous Foot Ulcers?	
Previous foot ulcer details (location/date)	
Contributing factors	
Contributing factors: Other	

Investigation History

Radiology Studies	Left Foot
Radiology Study Results/dates	20/7/16 R Foot Lt Moderate changes. Evidence bit of bon destructio at the dist metaphys the first phalanx o the third toe which could per be due to osteomye No other significant bone abnormali are seen apart fron long standing deformity the calcaneu

08:30 15/11/2016

Foot care: Reducing amputation rates and improving care

Professor Fran Game
Consultant Diabetologist and Director of R&D
Derby Teaching Hospitals NHS FT
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