WOUND CARE TODAY

SUPPORTED BY LEGS MATTER!

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OFFLOADING THE FOOT IN DIABETES

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WOUND CARE TODAY

LIVE Q&A

SEND IN YOUR QUESTIONS BY COMMENTING ON THE VIDEO

LEGS MATTER!

LEARNING OBJECTIVES

- To raise awareness of the complications associated with the foot in diabetes
- To highlight the importance of foot assessment in patient management to prevent or manage foot ulcers
- To develop understanding of the importance of offloading and the devices that might be used in prevention or treatment of foot ulcers

IMPACT OF DIABETES

- 4.7 million people diagnosed in the UK (2018)
- One in 15 people
- 3,222.500 in England (population of London = nine million)
- 2025 — estimated 5.5 million diagnosed
- Diabetes spend = £10 billion per year; 10% of NHS budget (£315 per second)

(Diabetes UK, 2019)

World Health Organization (WHO) ranked No 9 of all global diseases leading to death

NATIONAL DIABETES FOOT CARE AUDIT

NHS Digital

Key facts — fourth report May 2019

- The number of **ulcer episodes** submitted to the audit **increased** by **57%** between 2016 and 2017–18.
- The fourth annual report includes data on
  - **27,700 patients**
  - **33,155** new ulcer episodes
  - **221** specialist foot care services

(NHS Digital, 2019)

The Burden of Wounds Study (Guest et al, 2020)

FOOT ASSESSMENT — SO WHAT?

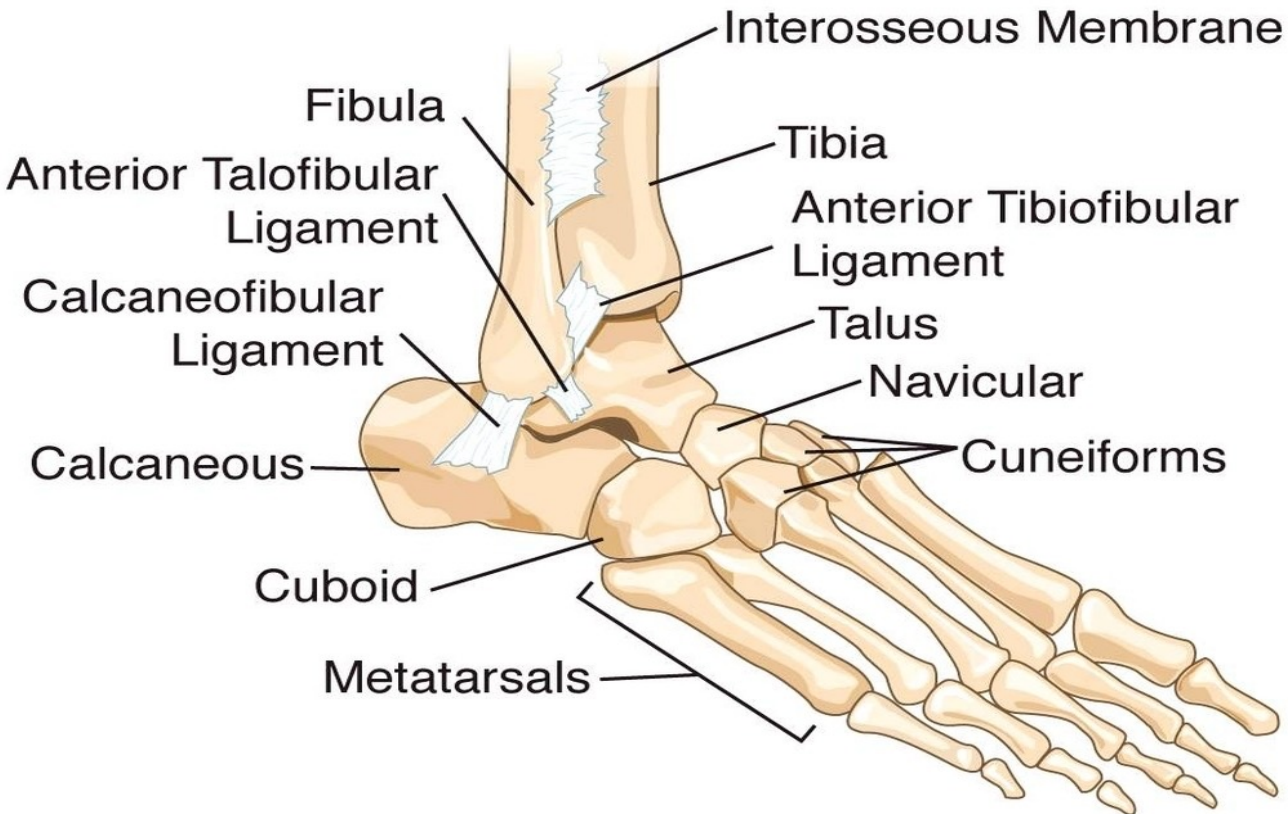
- Assessing a person's feet will help to identify and monitor changes in foot health
- Providing information to help people understand the importance of foot health and to monitor and care for their feet where able is important

FOOT ASSESSMENT — SO WHAT?

If you identify problems/changes to foot health, this may mean that the foot is at risk of:

- Infection
- Wounds
- Pain and discomfort
- Immobility

ANATOMY OF THE FOOT — ITS COMPLEX STRUCTURE



- The foot comprises 26 bones, 33 joints and more than 100 muscles, tendons and ligaments working together in each foot
- Nearly a quarter of the body's bones are in the feet!

FOOT FACTS

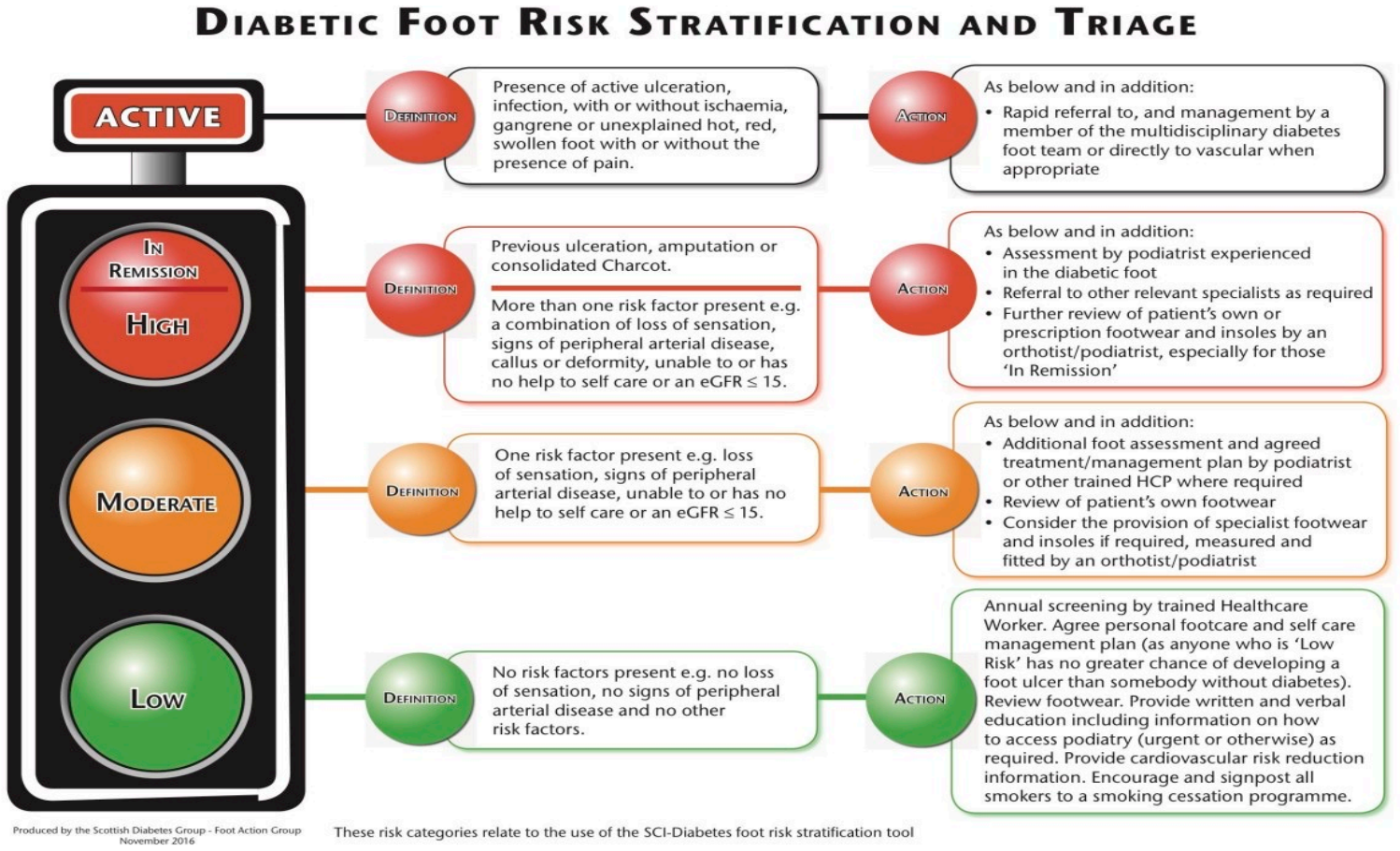
- The foot is unique and adapts for standing, walking, running on different terrains
- The average adult will walk almost 75,000 miles over their lifetime — the equivalent of travelling around the world three times

FIVE-POINT FOOT ASSESSMENT

Foot assessment includes looking at the whole foot, including the heel, underneath and in between the toes and toenails. It is important to assess:

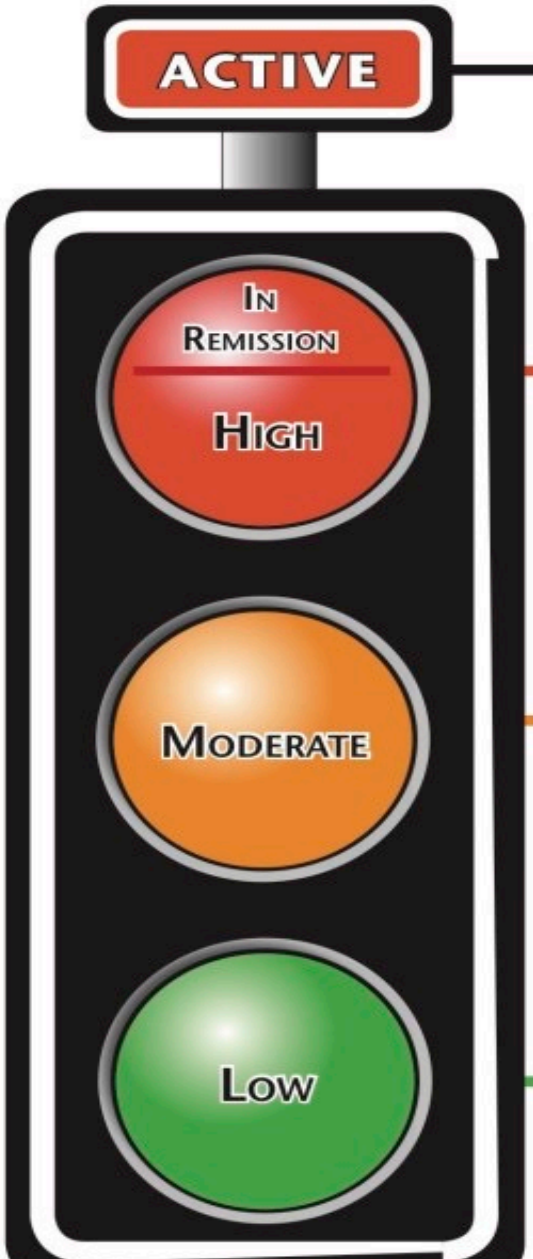
1. **Shape:** assessing the foot for any deformities
2. **Skin/nails:** assessing the skin on the whole foot, including between the toes, the nails and a history of previous ulceration
3. **Circulation:** assessing the blood supply to the feet by observing, feeling or using doppler ultrasound
4. **Sensation:** assessing if the person can feel, using a simple touch test or calibrated tool, e.g. 10g monofilament
5. **Footwear:** assessing footwear, including size and shape

NICE: RISK STATUS/CLASSIFICATION



(National Institute for Health and Care Excellence [NICE], 2016, updated 2019)

Diabetic Foot Risk Stratification and Triage



ACTIVE

Definition

Presence of active ulceration, infection, with or without ischaemia, gangrene or unexplained hot, red, swollen foot with or without the presence of pain.

Action

As below and in addition:

- Rapid referral to, and management by a member of the multidisciplinary diabetes foot team or directly to vascular when appropriate

In Remission / High

Definition

Previous ulceration, amputation or consolidated Charcot.

More than one risk factor present e.g. a combination of loss of sensation, signs of peripheral arterial disease, callus or deformity, unable to or has no help to self care or an eGFR ≤ 15.

Action

As below and in addition:

- Assessment by podiatrist experienced in the diabetic foot
- Referral to other relevant specialists as required
- Further review of patient's own or prescription footwear and insoles by an orthotist/podiatrist, especially for those 'In Remission'

Moderate

Definition

One risk factor present e.g. loss of sensation, signs of peripheral arterial disease, unable to or has no help to self care or an eGFR ≤ 15.

Action

As below and in addition:

- Additional foot assessment and agreed treatment/management plan by podiatrist or other trained HCP where required
- Review of patient's own footwear
- Consider the provision of specialist footwear and insoles if required, measured and fitted by an orthotist/podiatrist

Low

Definition

No risk factors present e.g. no loss of sensation, no signs of peripheral arterial disease and no other risk factors.

Action

Annual screening by trained Healthcare Worker. Agree personal footcare and self care management plan (as anyone who is 'Low Risk' has no greater chance of developing a foot ulcer than somebody without diabetes). Review footwear. Provide written and verbal education including information on how to access podiatry (urgent or otherwise) as required. Provide cardiovascular risk reduction information. Encourage and signpost all smokers to a smoking cessation programme

(National Institute for Health and Care Excellence [NICE], 2016, updated 2019)

DIABETES FOOT DISEASE — WHAT IS IT?

Vascular (peripheral arterial disease [PAD])

- Claudication: symptom of PAD. This is when arteries are narrowed or blocked
- Ischaemia: blood flow is restricted or reduced
- Gangrene/necrosis: the death of most or all of the cells in an organ or tissue due to disease, injury, or failure of the blood supply

DIABETES FOOT DISEASE — WHAT IS IT? continued

Neurological (neuropathy)

- Motor: wastage of small intrinsic muscles of the feet, leading to deformity, weakness, paresis
- Sensory: loss of protective sensation, i.e. pain, pressure, heat
- Autonomic: vasodilation and decreased sweating leading to dryness/fissuring of skin

Other complications:
Renal impairment and infection

MUSCULOSKELETAL ASSESSMENT OF THE FOOT IN DIABETES

Physical appearance

Shape: assessing the foot for any deformities, previous trauma

Footwear: assessing footwear, including size and shape

Clinical examination:

- Sitting
- Standing
- Walking and balance

MUSCULOSKELETAL ASSESSMENT OF THE FOOT IN DIABETES continued

Considerations

- Mechanical load and biomechanics
  - Tissue stress
  - Pressure
  - Friction/sheer
- Load redistribution and load sharing
  - Range of motion
  - Structure/deformity

WHY OFFLOADING IS IMPORTANT

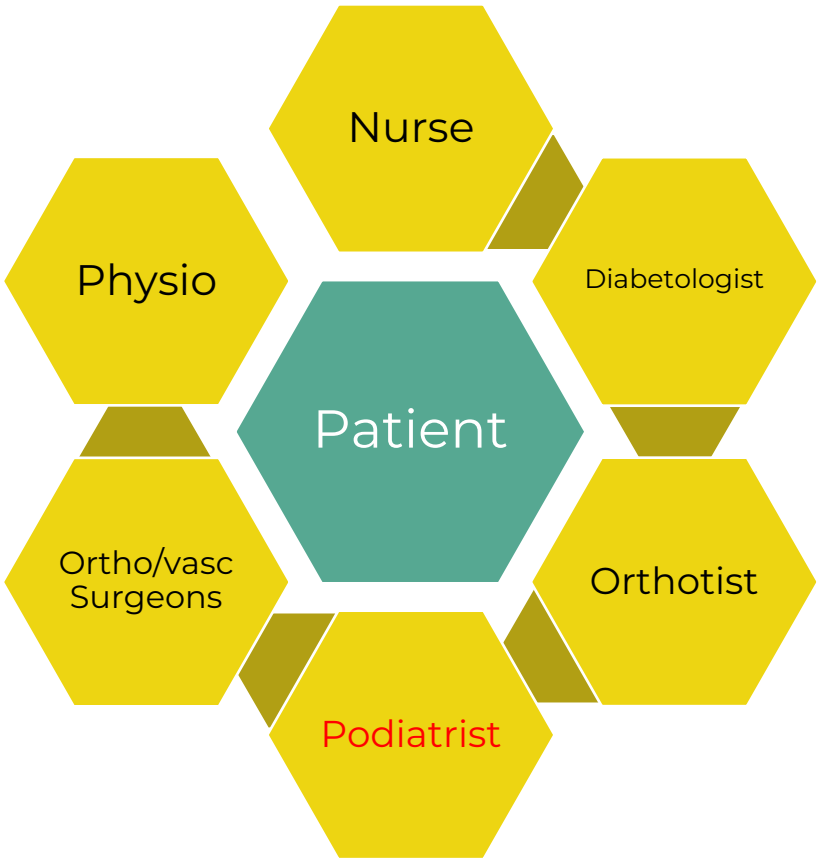
The combination of loss of protective sensation and elevated mechanical stress **leads** to tissue damage and ulceration.
Once tissue damage or a foot ulcer forms, healing is chronically **delayed** if the area is not effectively offloaded.

The overall principle of offloading is to reduce/ remove pressure from a site on the foot by redistributing pressure evenly to the rest of the foot.

(Bus et al, 2020)

MULTIDISCIPLINARY TEAM — WHY REFER?

- If your service cannot provide access to a load redistribution device, the patient should be referred to a podiatry-led multidisciplinary foot team (MDFT)
- This is a team with knowledge and skills in offloading the foot and expertise in fully understanding all principles of specific pressure relief and management of the foot



REDUCING THE PRESSURE

Early recognition of feet at risk of developing skin breakdown is an essential.

- Identify any risk and prevent skin damage
- Where skin breakdown or risk is evident — **think prevention with load redistribution devices**

FOOTWEAR (OFFLOADING)

This is the most simple way to easily offload the foot. Good fitting footwear can answer all the problems.

Consider:

- Length
- Width
- Height
- Depth
- Material
- Heel height
- Fastening

OR...

FOOTWEAR — SIMPLE CHECKS

- Check inside upper of shoe with hand
- Is there any rubbing of inner **lining**?
- Look at **inner** soles of shoes for excess wear marks
- Look on **sole** of shoe for unusual/excess wear marks/ foreign bodies

Tissue Viability Society

WEAR MARKS — CHECK INSIDE

Anyone can do this...

SLOPPY SLIPPERS

Falls risk:

- Slip-ons
- Non-supportive
- Flimsy material
- Comfortable
- Cheap

LOAD REDISTRIBUTION DEVICES

Bespoke shoe and total contact insole for the intact foot.

Orthotic devices are available locally, either retail orthopaedic footwear or bespoke.

THINK – ORTHOTIST REFERRAL

PRESSURE RELIEF ANKLE ORTHOSIS (PRAFO)

- It provides a ninety-degree alignment of the ankle foot complex and alleviates pressure on the Achilles heel region, which supports more than normal body weight to alleviate potential heel ulcerations

- The PRAFO also works well for treating heel ulcerations because it controls internal and external rotation of the hip. By providing control of this movement, the foot is not able to rotate medially or laterally

PODUS BOOT

DID YOU KNOW?

Podus boots are multi-purpose boots designed to be used for plantar flexion contracture, decubitus heel and toe ulcers, hip rotation

OFFLOADING SHOES

Forefoot offloading device

Rearfoot offloading device

PEG ASSIST INSOLE

AIR CAST WALKERS

Incorporate a high rocker sole for maximum offloading of the foot and a dual density insole to help eliminate pressure points.

Features and benefits:

- An aircell-lined shell that maximises plantar unloading, regulates shear/stress and provides protection and immobilisation
- Graduated compression to help reduce oedema
- Multi-aircell support for a total contact fit

AIR CAST WALKERS

Full length walker

Short length walker

TOTAL CONTACT CAST AND BOHLER WALKER

Total contact casting

Bohler walker

CONTRAINDICATIONS AND OFFLOADING CONSIDERATIONS

- Wound management (infection/exudate/dressings)
- Lymphoedema/oedema
- Concordance/social care
- Individual holistic assessment (gait and balance)
- Deep vein thrombosis (DVT)
- Wound location

CONTRAINDICATIONS AND OFFLOADING CONSIDERATIONS

Social considerations:

- Occupation
- Drive (independence)
- Activity
- Intimacy
- Sleep
- Smell
- Itchy
- Bath/shower
- Worry

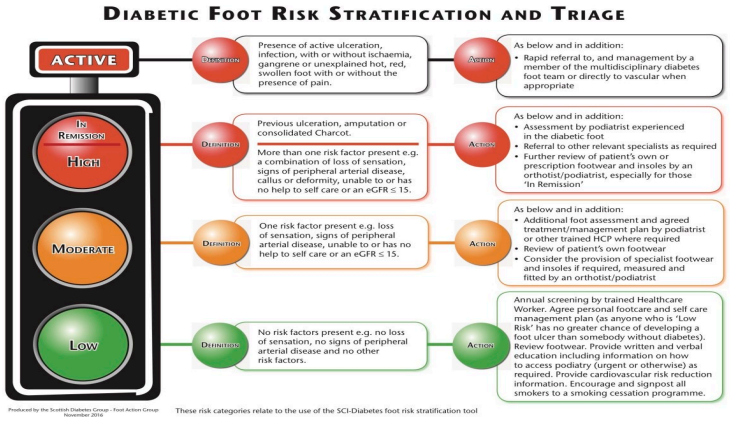
Finally... KNOW YOUR PATIENT

PATIENT ROLES AND RESPONSIBILITIES

- Appointments — big commitment, life changing for a long period of time (foot deformity can be permanent, e.g. Charcot Foot)
- Wearing devices as prescribed
- Full understanding
- Psychological impact — leading to non-concordance

IN REMISSION

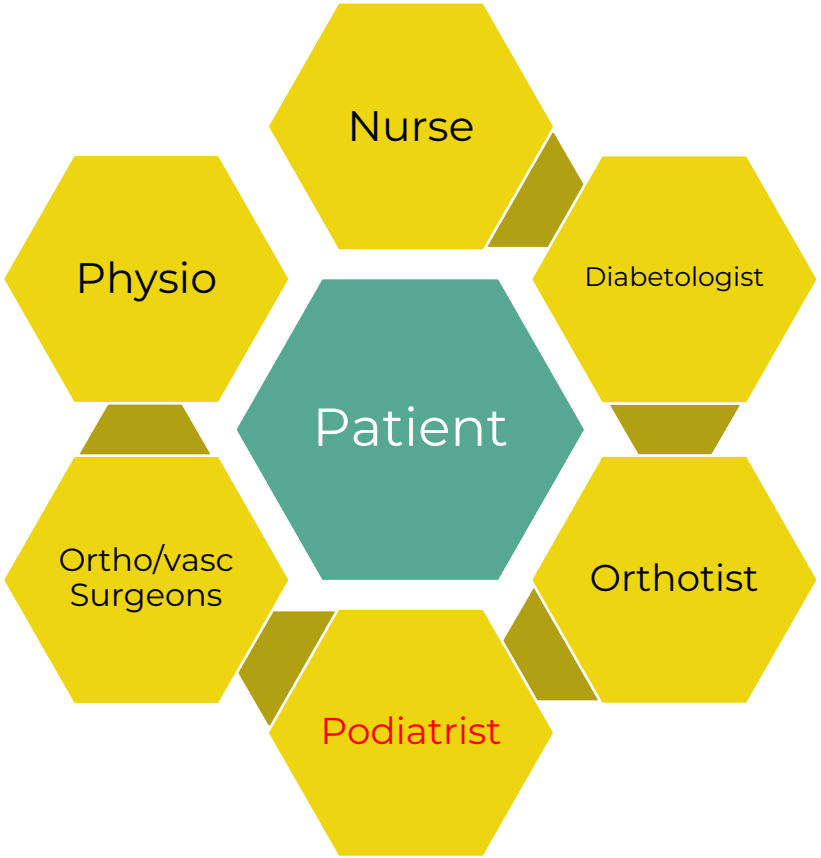
If a patient has had an ulceration, there is a high chance they will re-ulcerate. They remain high risk and under podiatry care.



- Avoid walking bare foot
- Inspection
- Properly fitting footwear
- Signs and symptoms
- Advice
- Recognising signs and symptoms and when and where to refer to

RAISING AWARENESS TO REDUCE THE RISKS

- Educating healthcare professionals — 1:1 or group training sessions
- Standardising clinical practice
- Encouraging MDT approach, this is hard work but rewarding
- Educating patients and families — engage this group as a pinnacle part of the team



THREE Ps...

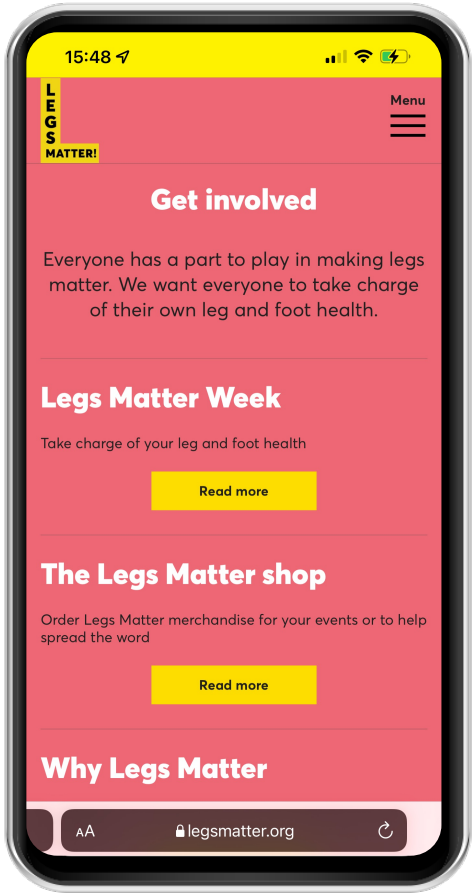
Prevention, Prevention, Prevention...

Early detection is key to preserve and protect

CALL FOR ACTION

For more information about Legs Matter and to get involved, visit:

https://legsmatter.org/get-involved



WOUND CARE TODAY 2022

CONFERENCE & EVENT

28/29TH MARCH

MARSHALL ARENA, MILTON KEYNES

2022 – THE YEAR OF *ACTION*

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QUESTIONS

SEND IN YOUR QUESTIONS BY COMMENTING ON THE VIDEO

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REFERENCES

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DOWNLOAD YOUR CERTIFICATE

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