

# Leg Ulcer Workshop



## Acknowledgements



## Acknowledgement of Country

*We respectfully acknowledge the people of the Yugamben language region, the traditional owners of the land on which we meet and pay our respect to their elders past and present, and all Aboriginal and Torres Strait Islander Peoples here today.*



## Disclaimer

- The views expressed in this presentation represent best available evidence and/or the professional opinions of the presenter
- The information presented is drawn from personal clinical experience & does not necessarily reflect those of the manufacturers
- All photography used & the cases discussed have provided consent or are available to the public
- Please refer to local protocols & standards set by regulatory bodies and peak bodies
- Refer to manufacturer's instructions for use for all product application
- The products discussed do not represent endorsement of any particular product or manufacturer

## Learning objectives

- By participating in this workshop, you will:
- Develop an understanding of leg ulcer prevalence
- Be able to identify the different types of lower leg ulcers and assessment, management and prevention strategies for each aetiology
- Develop the ability to assess the person, the wound and lower limb in relation to the use of compression therapy
- Enhance your understanding of ways to maintain skin integrity
- Develop skills in the selection, application, and removal techniques for different types of compression therapy

## Agenda

Time	Topic
8:30 – 9:00am	Registration & refreshments
9:00 – 9:15am	Introduction & Acknowledgement of Country
9:15 – 10:15am	Introduction to Leg Ulcers
10:15 – 10:45am	Morning Tea & Trade Display
10:45 – 11.45am	Interactive case study scenario
11:45 – 12:50pm	Practice session <ul style="list-style-type: none"> <li>• Tubular compression bandaging</li> <li>• Adjustable Velcro compression bandaging</li> <li>• Compression hosiery</li> <li>• Skin care &amp; dressing application techniques</li> </ul>
12:50 – 1:00pm	Summary & Evaluation

## Lower limb ulceration



1 – 2% OF OVER 60  
YEARS' POPULATION



PREVALENCE  
INCREASES WITH AGE



PROLONGED HEALING  
& FREQUENT  
RECURRENCE



\$400-500  
MILLION/YEAR



>65% OF A COMMUNITY  
NURSES' TIME

## The impact

Leg ulcers affect:

- Quality of life
- Cause pain
- Restrict mobility
- Lead to depression, anxiety & hostility for many sufferers



## Leg ulcer

A wound between the knee & the ankle that is unhealed beyond four weeks



## Types of leg ulcers

- Venous
- Arterial
- Mixed venous/arterial or combined arterial & venous insufficiency (CAVI)



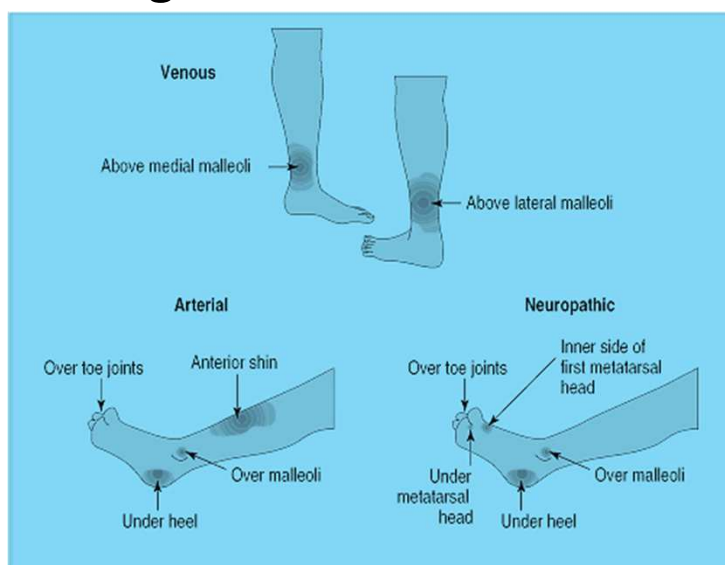
## Principles of leg ulcer management

- Remove or treat the precipitating cause
- Promote circulation
- Promote healing
  - Wound bed preparation
- Promote preventive care

**Assessment is the key to  
effective management of leg ulcers**



## Location of leg ulcers



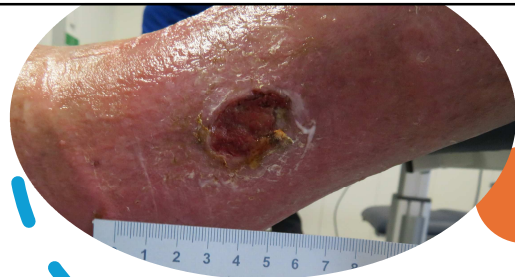


# Venous Leg Ulcers



## Venous leg ulcers

- 45-80% of legs ulcers will be VLUs
- Risk factors include:
  - Obesity
  - Past DVT's or leg trauma
  - Multiple pregnancies
  - Prolonged immobility
  - Female gender
  - Occupations that involve prolonged standing or sitting



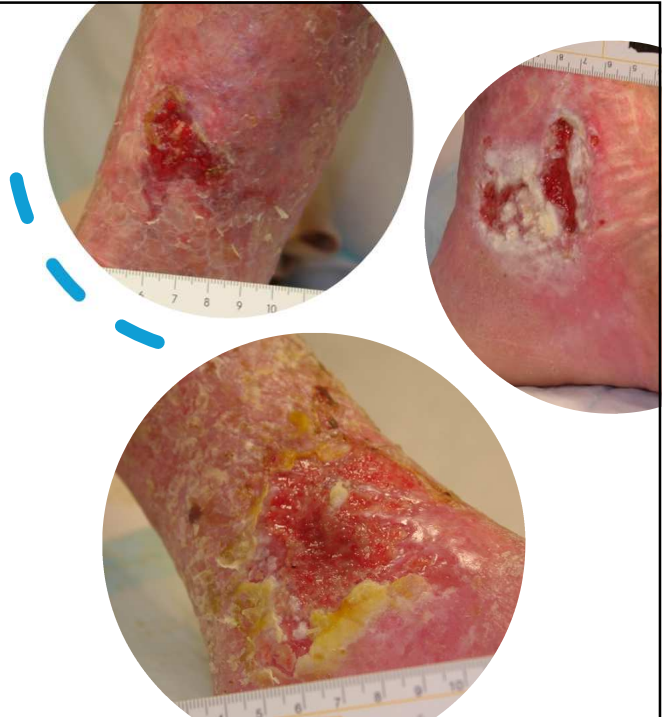
# Venous Leg Ulcers

Assessment includes:

- Examining foot pulses
- Doppler examination to check ABPI
- Measurement of ulcer area every 4 weeks
- Referral for ultrasound duplex scanning may be helpful if there is uncertainty

Compression therapy is contraindicated if ABPI < 0.7

An ABPI > 1.2 is unreliable and indicates further investigation is necessary



## Venous leg ulcers

Location

- Typically above the ankles, on the lower third of the leg

Depth

- Usually shallow

Appearance of wound

- Ruddy or beefy red, granular in appearance

Wound margins

- Flat & irregular, without undermining

Exudate

- Moderate to heavy





# Venous leg ulcers



Venous leg ulcers should **never** have:

- Black/necrotic tissue
- Extend into muscle fascia
- Tendon or
- Bone

## Wound Edge



Sloping, irregular



Punctate



## Periwound & surrounding skin



## Periwound & surrounding skin



## Periwound & surrounding skin



## Inflammation



REDNESS



HEAT



SWELLING



PAIN





## Venous leg ulcers

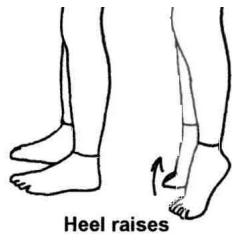
### Pain

- May be no pain to severe, constant pain
- Pain usually relieved by elevation of the limb



## Management of Venous Leg Ulcers

- Wound hygiene
- Consider use of topical antimicrobial dressings
- Dressings should be simple, low adherent, low cost, acceptable to patient
- Dressings should maintain a moist environment, manage exudate & protect the periwound skin
- Measure ulcer area to monitor progress every 4 weeks
- Graduated multilayer high compression bandage systems should be the first line of treatment for uncomplicated venous leg ulcers (ABPI  $\geq 0.8$ )
- Compression should be applied by a trained practitioner
- Avoid products that cause skin sensitivity (e.g. lanolin, phenol alcohol, topical antibiotics)



## Venous leg ulcer prevention

- After healing, use of compression stockings (for life) reduces ulcer recurrence rates
- Compression hosiery should be fitted properly
- Replace compression hosiery every 6 months
- Other strategies to prevent recurrence include:
  - venous investigation and surgery
  - regular follow-up and skin checks
  - skin care
  - lower limb exercise
  - elevation of the affected limb

## Arterial leg ulcers





## Arterial leg ulcers

- Less common than venous ulcers
- More difficult to heal because of underlying disease process
- Occur as a result of severe tissue ischaemia
- Extremely painful
- Represent potential limb loss
- Most common cause of peripheral arterial disease & arterial ulcers is atherosclerosis
- Risk factors are the same as those for coronary artery disease i.e. smoking, hypertension, diabetes



## Arterial leg ulcers

- Assessment of leg ulcers & doppler ABPI assessments should be undertaken by health professionals with training
- Signs of peripheral vascular disease include:
  - Loss of hair
  - Shiny or dry skin
  - Mummified or dry, black toes
  - Devitalised soft tissue with dry or wet crust
  - Thickened toenails
  - Purple colour of limb in dependent position
  - Cool skin



## Arterial leg ulcers

### Location

- Usually affect the toes or shin or occur over pressure points i.e. ankles or sites subjected to trauma or rubbing of footwear

### Depth

- Usually shallow but may be deep

### Appearance of wound

- Pale grey or yellow with no evidence of new tissue growth. Necrosis or cellulitis may be present, tendons may be exposed



## Arterial leg ulcers

### Wound margins

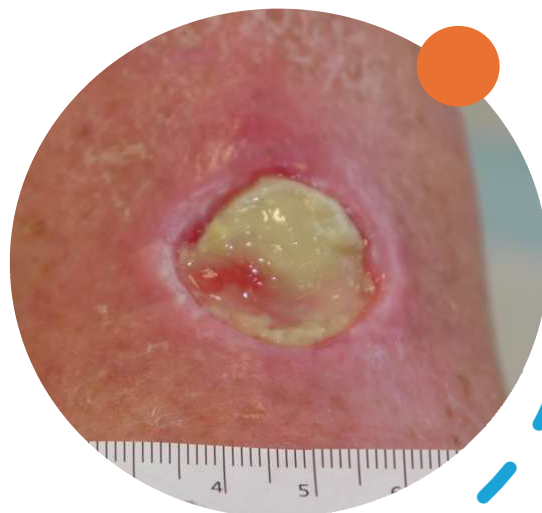
- Smooth, even, regular; shape will conform to injury if caused by trauma; 'punched out' appearance

### Exudate

- Minimal

### Pain

- Often accompanied by severe pain at rest
- Pain often increases with leg elevation
- Pain may also increase with ambulation



## Arterial leg ulcers

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## Management & prevention of arterial leg ulcers

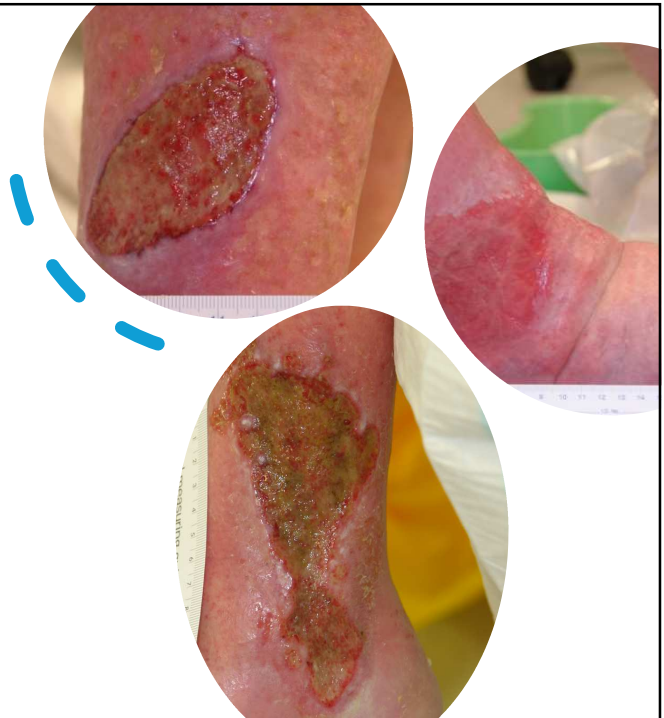
- Treat underlying aetiology
- Reduce risk of infection
- Improve blood supply, revascularisation
- Ongoing assessment for deterioration
- Pain management
- Lifestyle modification
- Medications
- Gentle exercise
- Passive warming of the extremities
- Protection of the limb
- Good footwear
- Avoid dehydration & extremes of temperature

## Mixed venous & arterial leg ulcers or Combined arterial & venous insufficiency (CAVI)



## Mixed venous & arterial leg ulcers

- Approx. 10-20% of leg ulcers, are the result of a combination of venous and arterial insufficiency
- Patients may present with characteristic signs of venous insufficiency e.g. brown staining, oedema etc. and also have concurrent arterial disease
- Careful assessment and care with compression



## Lower limb vascular assessment



Examine foot pulses



Doppler examination to check ankle brachial pressure index assessment

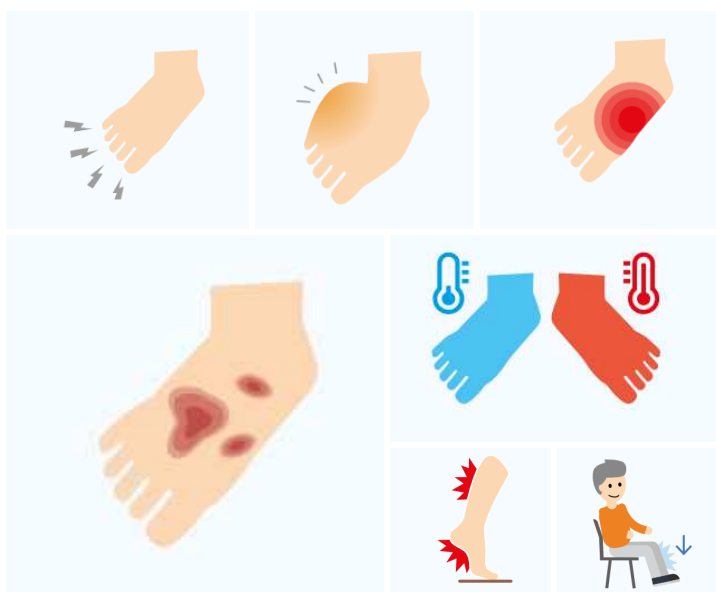


Measurement of ulcer area every 4 weeks



Referral for ultrasound duplex scanning if there is uncertainty in diagnosis

## Questions to ask





## Assessment

- Assessment of foot pulses
- Warmth of lower limb
- Capillary refill time
- Skin texture & turgor
- Condition of toenails



Palpation of dorsalis pedis pulse



Palpation of posterior tibial pulse

## Leg ulcer assessment

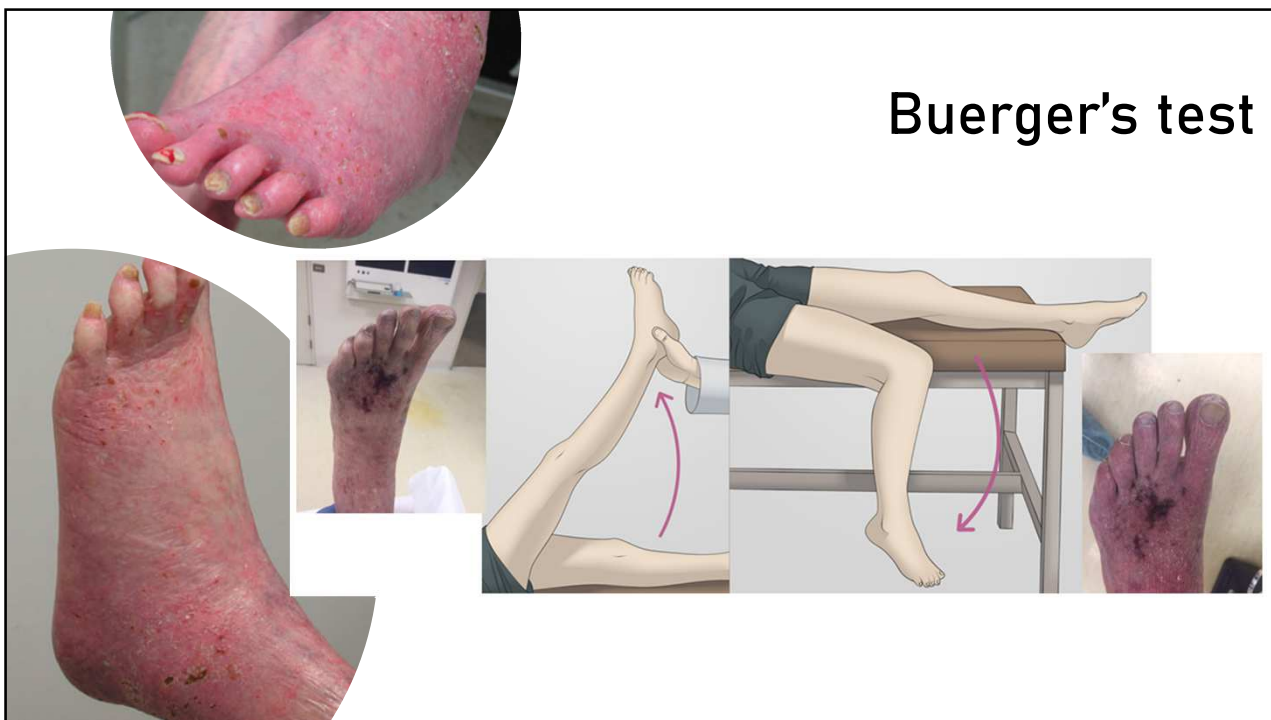
Dependent Rubor



Elevation Pallor

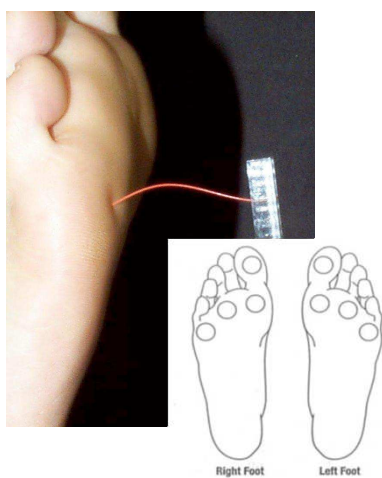


## Buerger's test



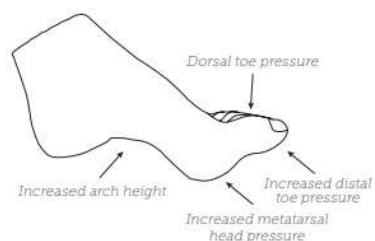
## Assessment

Monofilament test



Testing with cotton wool





## Structural deformity

## Range of motion



## Assessment

- Skin texture
- Skin colour
- Skin temperature
- Structures of the foot
- Condition of toenails

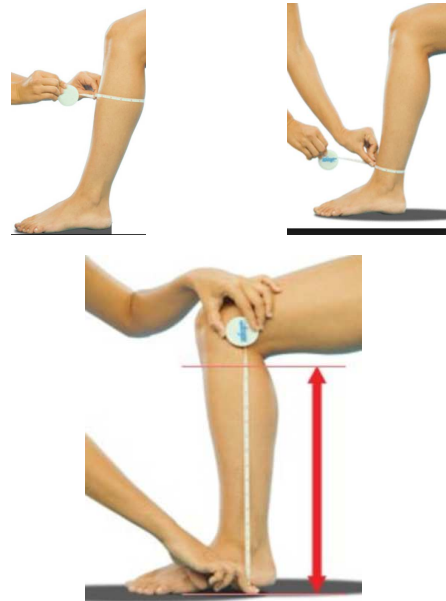


## Oedema assessment

## Assessment

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- Ankle & calf circumference
- Smallest part of the ankle
- Largest part of the calf
- Measure ulcer size every 4 weeks



## Leg ulcer prevention

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GENERAL  
HEALTH



MOBILITY



SKIN



EDUCATION /  
CONSUMER  
ENGAGEMENT



## When to refer



UNCERTAINTY IN  
DIAGNOSIS



LOW OR HIGH ABPI



COMPLICATED  
ULCERS



SIGNS OF  
INFECTION



DETERIORATION OF  
ULCER



FAILURE TO  
IMPROVE AFTER 3  
MONTHS



UNCONTROLLED  
PAIN



SYMPTOMS LIMIT  
LIFESTYLE OR  
QUALITY OF LIFE



## Summary

- Assessment is the key to treatment as it helps us to determine the underlying cause of ulceration
- Assessment involves recognising clinical signs & symptoms
- Each wound type has specific management strategies
- Preventative strategies are essential to help prevent wound recurrence
- Know when to refer

# Questions


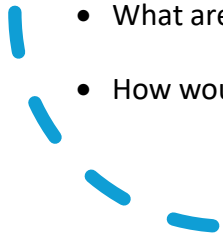
## Morning Tea





## Practical Case Study Scenario



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- What factors are likely to have led to the development of this wound?
  - How would you assess this wound?
  - In what circumstances would you consider a specialist referral?
  - What type of leg ulcer is this likely to be & why?
  - What are the main treatment options for this type of leg ulcer?
  - How would you attempt to prevent recurrence of the wound in the future?



# Practical Workshop

**Save the Date!**

Friday 23 May 2025

Practical Pressure Injury Workshop

Register your interest:



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GOLD COAST  
An Australian Government Initiative



**essity**

**australia** HEALTHCARE SUPPLIES



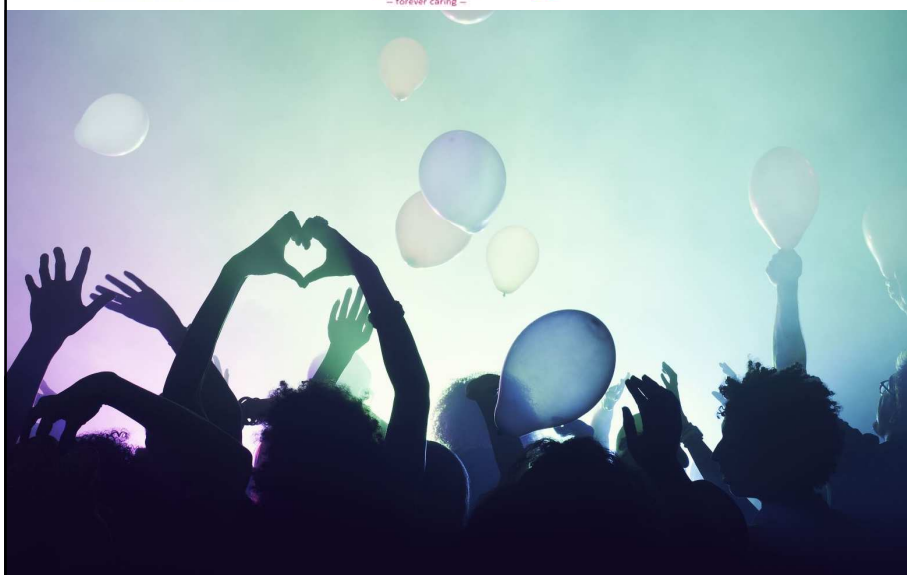
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— forever caring —

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Thank you

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complete evaluation







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