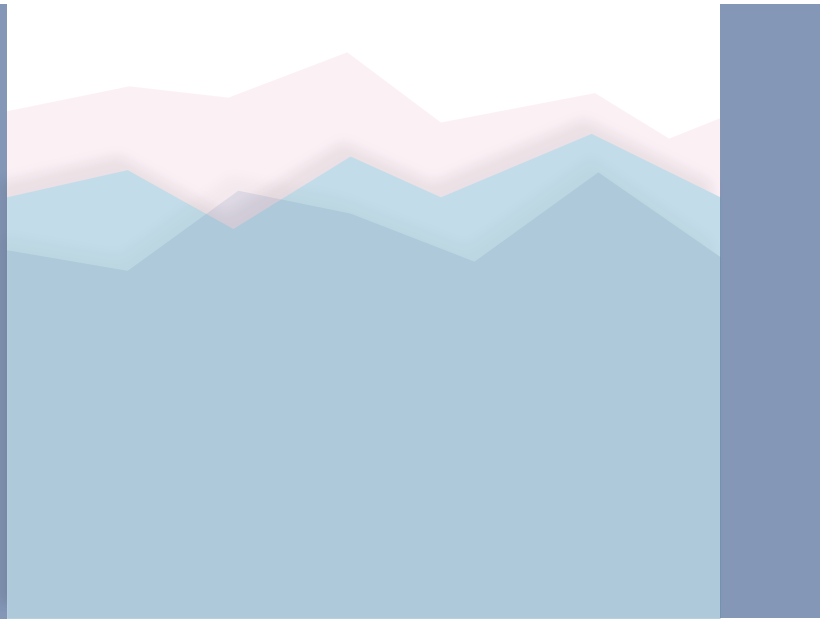
WUK BPS

Best Practice Statement

Management of lower limb skin tears in adults

2020



The current landscape

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Compression

Management pathway

Wounds UK

BEST PRACTICE STATEMENT: MANAGEMENT OF LOWER LIMB SKIN TEARS IN ADULTS

PUBLISHED BY:

Wounds UK
A division of Omniamed,
108 Cannon Street,
London
EC4N 6EU, UK
Tel: +44 (0)20 3735 8244
Web: www.wounds-uk.com

This document has been developed by Wounds UK and is supported by an unrestricted educational grant from Urgo Medical.

This publication was coordinated by Wounds UK with the Expert Working Group. The views presented in this document are the work of the authors and do not necessarily reflect the views of Urgo Medical.

Suggested citation:
Wounds UK (2020) *Best Practice Statement*: *Management of lower limb skin tears in adults*. Wounds UK, London.

Available to download from:
www.wounds-uk.com

EXPERT WORKING GROUP:

- **Jacqui Fletcher (Chair),** Independent Nurse Consultant
- **Caroline Dowsett,** Clinical Nurse Specialist Tissue Viability and Clinical Lead for Leg Ulcer Service, East London NHS Foundation Trust and Independent Nurse Consultant, Tissue Viability
- **Samantha Holloway, Reader,** Centre for Medical Education, School of Medicine, College of Biomedical and Life Sciences, Cardiff University, Wales
- **Karen Ousey,** Professor of Skin Integrity, Director for the Institute of Skin Integrity and Infection Prevention, University of Huddersfield; Department of Nursing and Midwifery Adjunct Professor, School of Nursing, Faculty of Health, Queensland University of Technology, Australia; Visiting Professor, Royal College of Surgeons in Ireland, Dublin; ISTAP Board Director (Europe)
- **Fania Pagnamenta,** Nurse Consultant, Newcastle Upon Tyne NHS Foundation Trust and Northumbria University
- **Tracy Vernon,** Lead Nurse, Skin Integrity Team, Doncaster and Bassetlaw Teaching NHS Foundation Trust, Doncaster
- **Kath Vowden,** Lecturer, University of Bradford; Honorary Nurse Consultant
- **Peter Vowden,** Honorary Consultant Vascular Surgeon, Bradford Teaching Hospitals NHS Foundation Trust; Visiting Honorary Professor, Wound Healing Research, University of Bradford

INTERNATIONAL REVIEWER:

- **Kimberly LeBlanc,** PhD, Advanced Practice Nurse, KDS Professional Consulting; Adjunct Professor, School of Physical Therapy, Faculty of Health Sciences, Western University; Affiliate Faculty, Ingram School of Nursing, Faculty of Medicine, McGill Univerity, Canada

Foreword

A skin tear is a traumatic wound that is at risk of not healing and therefore becoming chronic (LeBlanc et al, 2018). Skin tears are common across care settings, representing an extensive and 'hidden' problem (Vernon et al, 2019a).

Skin tears are more common in older people and it is increasingly acknowledged that they are largely preventable (LeBlanc et al, 2018). However, there is still a lack of awareness in practice and of evidence in the published literature (Rayner et al, 2015). This can lead to a lack of accurate diagnosis and targeted treatment, which in turn has an impact on outcomes and patient quality of life.

The need for standardised definitions and classification in order to aid documentation and care of skin tears has been acknowledged (LeBlanc et al, 2018). In response to this, an audit was undertaken within the Doncaster and Bassetlaw Teaching NHS Foundation Trust, which identified a specific gap in knowledge and the management of skin tears in the lower limb, finding a 'chaotic approach' in documentation, knowledge and management (Vernon et al, 2019a). Subsequently, Vernon et al (2019b) developed and evaluated a standarised care pathway.

Skin tears can occur anywhere on the body; however, lower limb skin tears are more likely to develop complications, particularly in individuals who also have multiple comorbidities (LeBlanc et al, 2018). Therefore, lower limb skin tears require specific guidance for management in practice. Specifically, this relates to the use of compression in conjunction with general skin tear management principles.

The expert working group met in London in November 2019, in order to discuss and further develop the Doncaster and Bassetlaw Teaching NHS Foundation Trust pathway, and to produce this document to provide context and guidance to use in practice.

This document should provide clinicians in both acute and community settings with the information they need to treat lower limb skin tears with confidence. This document supports the National Wound Care Strategy Lower Limb Programme (Adderly, 2018).

Jacqui Fletcher, Chair

Skin tears: The current landscape

Skin tears are a significant problem, with a prevalence estimated as between 8.1 and 11.4% in the acute care setting (Bermark et al, 2018; Munro et al, 2018). Across other care settings, estimates vary significantly: 2.23–92% in long-term care (Strazzieri et al, 2017). Evidence from Singapore, Canada and Australia indicates that the prevalence of skin tears is greater than pressure ulcers (Chang et al, 2016; LeBlanc et al, 2018; Munro et al, 2018), and the patients at high risk of pressure ulcers are the same group who are at risk of skin tears (Beeckman et al, 2020).

Skin tears are more common in older patients and those with vulnerable skin; these individuals are also more likely to have existing comorbidities and be at risk of developing infection, which can complicate the healing of skin tears, often leading to them becoming complex wounds (Wounds UK 2015; LeBlanc et al, 2018). The ageing global population means that incidence of skin tears, and other skin-related issues associated with ageing, are increasing (LeBlanc et al, 2018).

However, while rates are higher in older patients, skin tears affect many different patient groups and are not limited to older patients. Skin tears also occur in neonates and children; however, this document focuses on management of lower limb skin tears in adults. Further research around skin tears in neonates and children is still required (LeBlanc et al, 2018).

Skin tears most commonly occur in the extremities (Wounds UK, 2015). Prevalence of skin tears in the lower limb has been reported at 36–45%, with the majority occurring over the tibia (Rafter et al, 2016; Bermark et al, 2018); however, skin tears over the tibia are often classified as a pre-tibial laceration, therefore figures are unreliable. Skin tears in the lower limb are more common in patients with reduced mobility (Rayner et al, 2015).

Due to discrepancies in identification, and gaps in documentation, the true extent of skin tears on the lower limb remains largely unknown. There are limited incidence studies, and reported prevalence figures vary significantly (LeBlanc et al, 2018). Collection of prevalence data has been identified as an area of key importance, which should be the focus for future studies (LeBlanc et al, 2018).

THE IMPACT ON THE PATIENT

The impact of skin tears on the patient can be significant and should be carefully considered. Skin tears can be painful, affect quality of life (LeBlanc et al, 2018), and be distressing for the patient and their relatives.

This can also be challenging for the clinician, as skin tears are considered to be largely preventable, so they may be associated with causing a patient unnecessary harm – e.g. if the skin tear is sustained due to medical adhesive-related skin injury (LeBlanc et al, 2018).

THE IMPACT ON HEALTHCARE SYSTEMS

Skin tears have been shown to increase healthcare costs and increase the risk of hospitalisation (Chang et al, 2016; LeBlanc et al, 2018; Munro et al, 2018). In particular, skin tears to the lower limb, especially those with causative underlying pathology, have been shown to increase the length of hospitalisation (LeBlanc et al, 2018).

This has an impact both on increased potential for wound complications (e.g. infection, chronicity) and associated impact on resources (e.g. additional treatments, clinician time). While dressing needs are generally universal for all skin tears, lower limb skin tears require additional resources (i.e. compression therapy).

Implementing a structured pathway for the management of skin tears in the lower limb has demonstrated improved outcomes for patients, and reduced costs associated with unhealed wounds and ensuing complications (Vernon et al, 2019b). An early case series providing evidence of the pathway in practice showed that the

pathway was easily implemented and rated highly by both patients and clinicians, with overall healing rates improving and associated cost reductions observed; patients' pain levels were reported as improved and no patients in this early study developed infection or complications, which are common in lower limb skin tears (Vernon et al, 2019b).

THE NEED FOR INCREASED AWARENESS AND EDUCATION

There is an acknowledged lack of awareness around skin tears, which have been referred to as 'the underappreciated enemy', particularly in older patients or those with at-risk skin (LeBlanc and Baranoski, 2018).

As skin tears are often observed in individuals at the extremes of age, or who are critically and chronically ill, an increased understanding – both of skin tears themselves, and the factors that put patients at risk of skin tears – is required (LeBlanc and Baranoski, 2018).

The expert group agreed that clinician education around skin tear management is vital, and should form the basis for evidence-based and standardised management strategies in practice. This should form an approach to lower limb skin tears that includes prevention, assessment, classification and management (see Box 1 for further information).

Box 1. Clinician education to improve knowledge of lower limb skin tears

Education and knowledge around prevention and management of lower limb skin tears should include:

- Anatomy and physiology of the skin
- Risk factors and prevention in at-risk patients
- Engaging patients in prevention strategies
- Conducting a full assessment of the patient and their skin tear
- Identification and standardised classification, facilitating data collection
- Dressing selection
- Use of compression
- Use of a standardised care pathway
- Measuring outcomes

Skin tears: definitions and terminology

There have been several definitions and classification tools proposed for skin tears. The most well researched is the International Skin Tear Advisory Panel (ISTAP) definition, which should be used for the purpose of identification and classification of the wound. This states that a skin tear is:

'a traumatic wound caused by mechanical forces, including removal of adhesives. Severity may vary by depth (not extending through the subcutaneous layer)'

LeBlanc et al, 2018

Therefore, if the damage extends through the subcutaneous layer, it is not a skin tear and another diagnosis should be made – e.g. laceration or degloving injury – in order to ensure correct diagnosis and treatment.

It should be noted that the skin is sometimes much thinner than is realised (see Figure 1), which can make it difficult to assess the depth of damage (if in doubt, seek specialist advice). The normal ageing process involves thinning of the epidermis and flattening of the epidermal junction (Moncrieff et al, 2015), meaning older individuals are at an increased risk of skin tears even from minor trauma (Voegeli, 2007).

Within the definition, a skin tear can be classified as either:

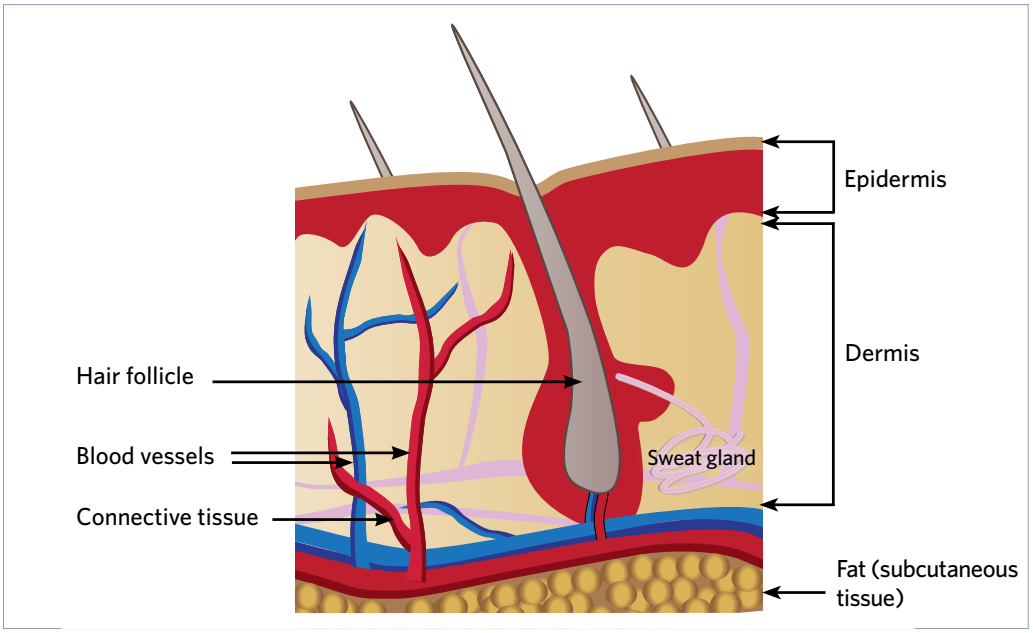
- Partial-thickness: the separation of the epidermis from the dermis
- Full-thickness: the separation of the epidermis and dermis from the underlying structures of the skin.

Skin tears can further be classified as uncomplicated: an acute wound that heals within 4 weeks; or complicated: complex/chronic wound that is non-healing at 4 weeks (LeBlanc et al, 2018).

The World Health Organization (WHO) does not currently include skin tears as a specific diagnosis in the International Classification of Diseases (ICD) coding (WHO, 2018). It is suggested that this has contributed to skin tears being perceived as 'insignificant' injuries, which adds to a lack of awareness (Rayner et al, 2015).

It is important to note that skin tears are considered an adverse event that should be reported whenever it compromises the safety of the patient, or according to local protocol, in order to improve care and outcomes (LeBlanc et al, 2018). Improved documentation of skin tears is key to increasing awareness, which in turn will inform practice.

Figure 1: The layers of the skin



All individuals working in a healthcare setting should be aware of the extent of the problem of skin tears in the patient population

Best Practice Statement

Use correct and consistent terminology

Best Practice Statement

Ensure full and comprehensive documentation, in order to facilitate data collection and sharing

Best Practice Statement

Expect your clinician to explain that you have a skin tear and what that means for you – e.g. keeping the wound covered and how to protect it from further trauma, and when to seek further advice

Patient expectation

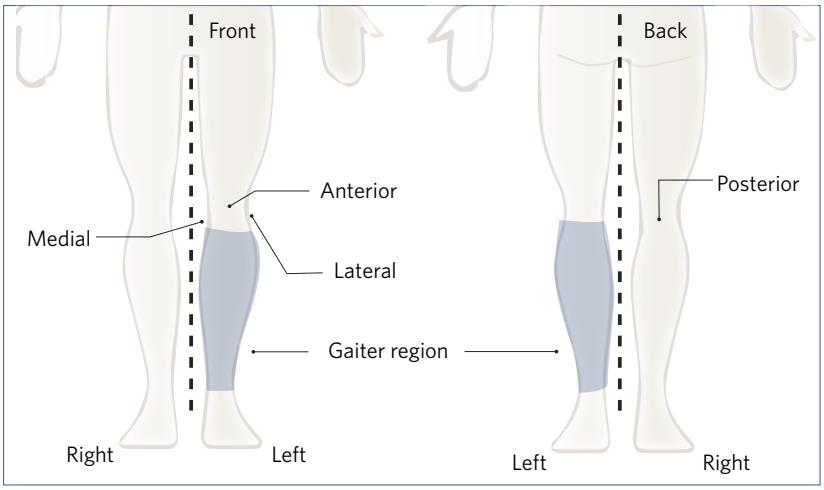


Figure 2: Representation of the lower limb

SKIN TEARS OF THE LOWER LIMB

In considering skin tears specifically in the lower limb, it is important to define precisely what is meant by 'lower limb'. In this document, reference to the lower limb means above and including the ankle, below and including the knee (see Figure 2).

Complicated skin tears are more likely in the lower limb, particularly in individuals who also have multiple comorbidities (LeBlanc et al, 2018). A non-healing wound is an indicator of the impact of underlying comorbidities, and further assessment and additional treatment may be required. An example may be the presence of venous disease where assessment for high compression would be required (Bale et al, 2004).

There are many skin tears that are recorded as 'unclassified'; additionally, there are skin tears that may have started as a minor trauma and developed into a different wound type. Therefore, there is a need for regular reassessment of the diagnosis and to reclassify the wound if necessary.

Documentation of the wound's location is important when dealing with the lower limb (see Box 2 for tips).

Box 2. Tips for accurately recording the location of a lower limb skin tear (adapted from Fletcher et al, 2018)

- Use correct anatomical descriptors when recording the location of each wound in words – e.g. 'skin tear is located on the medial aspect of the right lower leg, 4cm above the right medial malleolus'
- Record the location of each wound on a body map
- Remember that left and right are allocated from the patient's perspective
- Use a disposable ruler and measure distances consistently
- Consider displaying posters illustrating key anatomical terminology in clinical rooms, or as a pocket guide to facilitate accurate recording of information

Prevention of lower limb skin tears

Early recognition of people who are at risk of developing a lower limb skin tear is an essential part of prevention (Koyano et al, 2016; Lewin et al, 2015; Rayner et al, 2015; Wounds UK, 2015), and the high risk categories for skin tears are similar to those for pressure ulceration (Woo et al, 2015); see Box 3 for information on risk categories. A full and holistic assessment of the individual and their skin should be conducted at the first visit or on admission to hospital (LeBlanc et al, 2018). Ongoing inspection of the skin should be incorporated into an integrated plan of care, to ensure that any changes to the individual's health status and skin integrity are identified (Wounds UK, 2015).

Box 3. Risk categories for lower limb skin tears (adapted from LeBlanc et al, 2013; LeBlanc et al, 2018)

- **Skin:** extremes of age, dry/fragile skin, previous skin tear
- **Mobility:** history of falls, impaired mobility, dependence on assistance for activities of daily living, mechanical trauma
- **General health:** comorbidities (e.g. diabetes, arthritis, cardiovascular disease), polypharmacy, impaired cognition (sensory, visual, auditory) and malnutrition

A study by Carville et al (2014) evaluated the effectiveness of a twice-daily moisturising regimen as compared to 'usual' skin care for reducing skin tear incidence in an aged care facility. The study found that the application of a pH-neutral, perfume-free moisturiser on the extremities, applied twice daily, reduced the incidence of skin tears by almost 50% (Carville et al, 2014). As most skin tears occur in the extremities, and lower limb skin tears have increased potential to become complicated wounds (often due to the underlying pathology), encouraging patients to self-care by applying moisturiser to their own legs could have a beneficial effect on reducing the risk of skin damage.

The need to educate patients and engage them in their own care has been increasingly recognised, and has been demonstrated to improve patient experiences and outcomes (Wounds International, 2012). Wherever possible, individuals should be encouraged to engage with their own skincare regimen.

Expect to be encouraged to be involved in your care as much as possible

Patient expectation

Attention should be paid to the patient's overall wellbeing in terms of health and skin integrity, such as nutrition and hydration, comorbidities and medication, and any psychosocial, lifestyle or quality of life issues (LeBlanc et al, 2018).

The patient should be engaged in their own treatment as much as possible

Best Practice Statement

Care should be tailored to the individual and the care setting

Best Practice Statement

Management of lower limb skin tears

In order to optimise care of the lower limb, an evidence-based standardised approach is required (Vernon et al, 2019a). This should involve all members of the multidisciplinary team (MDT).

If a patient presents with a lower limb skin tear, a standardised management pathway should be initiated. While this should be tailored to the individual and their wound where necessary and appropriate, the structured pathway presented in this document should help to ensure that the correct steps for best practice are included. The following section outlines the appropriate steps of the management pathway (see p17 for a figure demonstrating the management pathway).

Care delivered to patients with a skin tear should be evidence-based and standardised, with suitable pathways triggered by assessment and diagnosis

Best Practice Statement

Expect your clinician to deliver your care based on a standard pathway of care based on current best practice

Patient expectation

FIRST AID AND HAEMOSTASIS

When a patient presents with a skin tear, there may be an initial need to control bleeding. In such cases, pressure should be applied to the wound and the limb elevated. Where controlling bleeding is a priority, dressings to assist with haemostasis may be used (see p13 for more information on dressing selection). More bleeding and/or bruising may occur in patients on anticoagulants or aspirin. Treatment may need to be monitored/reviewed in some patients, particularly those with a history of recurrent skin tears.

Skin tears can be painful wounds, so it is important that pain is monitored throughout the treatment process (see p14 for more information on minimising pain at dressing change). The patient's pain levels should be appropriately managed with analgesia if necessary.

Skin tears can be distressing for the patient (LeBlanc et al, 2018), so communication is key in order to reduce any anxiety and ensure the patient is as comfortable as possible – e.g. explaining that pain and bleeding are common in lower limb skin tears, what the patient should expect and how this will be managed.

ASSESSMENT

When a patient initially presents with a skin tear, a full holistic assessment of the patient, their limb and their wound should be undertaken (Wounds UK, 2015).

Expect your skin tear to be closely examined to ensure the most appropriate treatment

Patient expectation

The patient should be assessed for:

- General health
- Skin health
- Medical history and any previous skin tears
- Individual capacity and consent
- Comorbidities and medication
- Mobility and activities of daily living
- Lifestyle and preferences.

The limb should be assessed for factors such as:

- Oedema
- Size/shape
- Adequate blood flow/signs of poor perfusion (through visible signs and ABPI testing)
- Overall skin integrity and condition.

The skin tear itself should be examined for the following factors, in order to inform care and prevent complications:

- Cause of the wound
- Anatomical location
- Duration of injury
- Dimensions (length, width, depth)
- Wound bed characteristics and percentage of viable/non-viable tissue
- Presence/absence of skin flap
- Type and amount of exudate
- Presence of bleeding or haematoma
- Integrity of surrounding skin
- Signs and symptoms of infection
- Associated pain (Stephen-Haynes and Carville, 2011).

The assessment should be fully and

comprehensively documented. If it is necessary for the patient to be transferred into a different care setting, the documentation should provide clear information about the patient and the care they have received so far. Continuity of care, for the patient and their ongoing treatment, is necessary to improve outcomes. A 'patient passport' can be utilised, engaging the patient and their carers or family, ensuring they are fully informed and involved in the process. This will vary according to patient preference and capacity, and should be tailored to the individual.

At this stage, it is important to establish the patient's needs, who is delivering the care and whether it is appropriate for the individual and their needs.

Expect your clinician to ask how your wound happened, because this will help them to decide the best treatment and can then prevent it happening again

Patient expectation

Expect your clinician to ask about your overall health status and lifestyle

Patient expectation

A full holistic assessment should be carried out and comprehensively documented, involving the patient in this process

Best Practice Statement

CLASSIFICATION

Correct classification of skin tears is vital in order to optimise care (Vernon et al, 2019a). Several classification systems have been proposed and used for skin tears, and a need for standardisation and simplification has been acknowledged.

Originally, the Payne-Martin classification system graded skin tears according to the extent of tissue loss as a percentage (Payne and Martin, 1993). While it is still in use in some areas, this system has never been validated, and defining percentage values for tissue loss can be difficult in practice, making the assessment potentially unreliable.

The Skin Tear Audit Research (STAR) classification system (Carville et al, 2007) has been validated and is in use in some parts of the world (primarily in Australia and Japan). The STAR system was developed as a modified version of the Payne-Martin system (Payne and Martin, 1993), including the addition of colour distinction (whether the skin is pale, dusky or darkened). It has been suggested that the overlapping of categories in this system could potentially cause confusion (LeBlanc et al, 2013).

The ISTAP classification (LeBlanc et al, 2013) is a systematic, standardised tool, which has been validated (Van Tiggelen et al, 2019). It is simple to use in practice and, as such, is recommended for use. The ISTAP system classifies skin tears as Type 1, Type 2 or Type 3 according to the extent of flap loss (Figure 3).

The skin tear should be documented and classified using the ISTAP classification tool

Best Practice Statement

CLEANSING, DEBRIDEMENT AND FLAP MANAGEMENT

The lower limb skin tear should be cleansed/irrigated as required, according to local protocol, and any residual debris or haematoma removed (LeBlanc et al, 2018). The surrounding skin should be gently patted dry to avoid further skin damage. It should be noted that haematomas are common in lower limb skin tears: these can be debilitating and lead to other complications such as infection if prompt treatment is not carried out; management of a haematoma may require either conservative (where possible) or surgical management, which may require onward referral (Thompson-McHale, 2015).

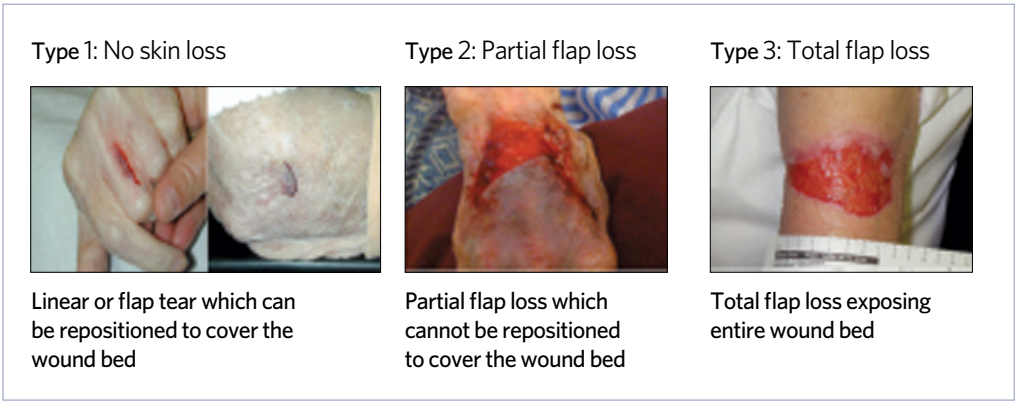


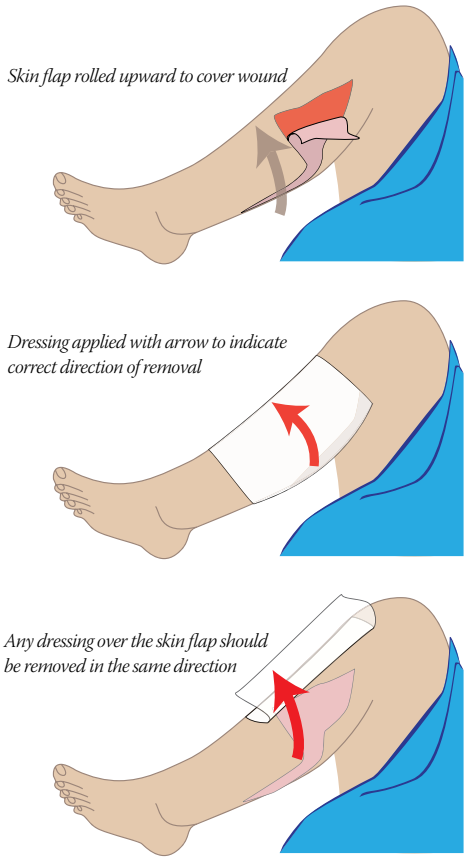
Figure 3: ISTAP Skin Tear Classification (LeBlanc et al, 2018)

When the wound has been appropriately cleansed, the focus should be on the flap, not the wound beneath. The flap should be preserved as far as possible, and a key aim of treatment should be to maintain the viability of the flap.

If the flap is viable, it can be re-approximated to function as a 'dressing'. The flap should be eased back into place – while taking care not to stretch the skin – using a gloved finger, dampened cotton tip, tweezers or silicone strip (Wounds UK, 2015). If the flap is difficult to align, a moistened non-woven swab can be considered, to be applied for 5–10 minutes to rehydrate the flap.

However, even if the flap is present, it may be non-viable. Early removal of any non-viable tissue through appropriate debridement should be undertaken by a skilled health care professional (onward referral to an appropriately skilled practitioner may be necessary). The type of debridement will vary according to the patient and their wound; use of debridement wipes or pads may be less traumatic for the patient and can be used across all care settings. Alternatively, consider using a dressing with polyabsorbent fibres, to facilitate autolytic debridement.

Care should be taken during debridement to ensure that any viable skin flap is left intact (LeBlanc et al, 2018). If the skin or flap is pale or dusky/darkened, reassessment should be made within 24–48 hours (Wounds UK, 2015).



The skin tear should be classified after the wound has been cleaned and the flap repositioned (if it appears to be viable) or debrided (if it is clear the flap is not viable), not before. This will help to establish whether the flap is viable, which is a key part of classification and ongoing management.

The wound should be measured at baseline (including both total wound size and size of approximated flap), and photographed if possible (with the patient's consent and according to local organisational policies), to enable monitoring of ongoing progress. It is important that the wound is monitored and re-assessed: formal assessment should be conducted every 14 days, and progress should be monitored and documented at every dressing change.

If the flap is non-viable, it needs to be removed by an appropriately skilled person

Best Practice Statement

Expect your clinician, if possible, to gently reposition the flap of skin. Although this may cause a little discomfort, a comfortable and secure dressing will be used to cover the wound and protect it from further damage

Patient expectation

Expect your clinician to examine and measure your leg and wound, and possibly take photographs (with your consent)

Patient expectation

Focus on dressing selection

Selecting an appropriate dressing is vital to optimise the wound healing environment, support healing of the wound and to avoid causing any further trauma when applied and removed (LeBlanc et al, 2018); see Box 4 for dressings to avoid in skin tear management.

Based on the assessment, determine your objectives of care and select a dressing to support these objectives

Best Practice Statement

The ideal wound dressing for a skin tear should (adapted from LeBlanc et al, 2018):

- Control bleeding if required
- Be easy to apply and remove (either by a health care professional, or the patient if self-caring)
- Not cause trauma on removal
- Provide a protective anti-shear barrier
- Optimise the healing environment (e.g. moist wound healing)
- Be flexible
- Provide secure, but not aggressive, retention
- Optimise quality of life
- Be non-toxic
- Be cost-effective
- Not require a secondary dressing
- Afford extended wear time – the group agreed a minimum of 5 days

A nonadherent mesh contact layer, such as lipidocolloid mesh, is one of the recommended dressings for use on lower limb skin tears (LeBlanc et al, 2018). The benefits of using this dressing type include:

- A moist healing environment
- New tissue formation through fibroblast proliferation
- Non-adherence to the wound bed, facilitating atraumatic removal without damaging newly formed tissue
- Pain-free dressing change
- Protection of the periwound/ surrounding skin
- Safe use on patients with fragile and sensitive skin (Vernon, 2018; White et al 2015).

UNDISTURBED WOUND HEALING

If possible, it is best to allow the skin tear to heal without being disturbed. This supports the concept of undisturbed wound healing – using a dressing with an increased wear time and keeping the dressing in situ – is key (Brindle and Farmer, 2019). The clinician should ideally have access to an appropriate dressing on their local formulary and have the confidence to leave it on for an extended period of time (the group agreed a minimum of 5 days unless there are obvious complications such as infection).

The potential benefits of undisturbed wound healing depend on the individual patient and their circumstances. However, longer wear time can result in a range of benefits such as:

- Optimised healing if the wound remains undisturbed (unless there is a specific reason to remove the dressing)
- Reduced risk of contamination and potential infection
- Potential savings in cost
- Potential savings in clinician time (Brindle and Farmer, 2019).

Patient communication is key, and the rationale for undisturbed wound healing should be explained, to ensure that the patient understands and is happy with their treatment (Blackburn et al, 2018). Traditionally, some patients may be nervous of infection or complication, or simply prefer their wound to be looked at more frequently (Brindle and Farmer, 2019). However, an individualised approached to this can be discussed.

Box 4. Dressings not recommended for use in skin tear management

- Iodine-based dressings, which cause drying of the wound and the peri-wound skin
- Film and hydrocolloid dressings, due to their strong adhesive component
- Skin closure strips or paper sutures
- Dry gauze, which does not adequately secure the flap and may become adherent

It is important to monitor treatment and change the care plan if the wound is not showing signs of healing in the expected timeframe (Vernon et al, 2019a). The patient and the treatment selection should be reassessed if the wound is not showing signs of healing/progression after 2 weeks.

After 2 weeks, if your wound is not healing as expected, you should expect to have a further assessment and be referred for further consultation

Patient expectation

TIPS FOR DRESSING APPLICATION AND REMOVAL

Care needs to be taken when managing a lower limb skin tear to negate or minimise the risk of trauma to the wound or surrounding skin when applying and removing the dressing (LeBlanc et al, 2018).

Particular consideration needs to be given to flap preservation: so, when applying the dressing, an arrow should be drawn to indicate the correct direction of removal (see Figure 4).

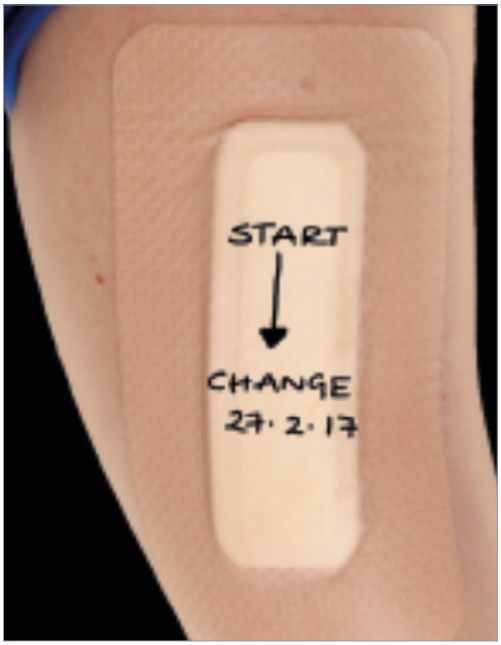


Figure 4: Recommended arrow system and change date on dressing (Vernon et al, 2019a)

Time should be taken to remove dressings slowly and carefully. Although there are dressings that are specifically designed to be atraumatic (e.g. lipido-colloid dressings), if necessary, an adhesive remover can be used when removing the dressing to minimise trauma (LeBlanc et al, 2018).

Mark the dressing with an arrow to indicate the direction of correct removal and the date when the dressing should next be changed

Best Practice Statement

Expect your clinician to mark your dressing with an arrow indicating the direction the dressing should be removed and the date when the dressing should be changed

Patient expectation

As part of self-care, suitable patients may be encouraged to undertake their own dressing changes. In such cases, the patient needs to feel confident and informed; there is some evidence that engaging patients in their own care, and empowering them to be involved, improves experiences and outcomes (Wounds International, 2012).

Focus on compression

When managing skin tears of the lower limb, it is recommended that compression should be considered as a component of treatment (LeBlanc et al, 2014; Ewart, 2016; LeBlanc et al, 2018). Application of compression as an adjunct to wound therapy has been found to control peripheral oedema and address local swelling, which is recognised as a factor in delayed healing (LeBlanc et al, 2014).

The patient's safety should be the main consideration in any use of compression: the consensus of the group was that up to 10mmHg can be used in all patients with lower limb skin tears (excluding those with red flags, as compression may be contraindicated), which can be increased to up to 40mmHg in patients who have had a full vascular assessment (see next section), if non-healing or in the presence of venous disease.

Use of a 10mmHg hosiery liner is recommended for the first 2 weeks as the first-line approach (Vernon et al, 2019a). Benefits to using a hosiery liner include:

- Consistent level of compression
- Ease of application
- Improved patient outcomes
- Potential cost savings
- Improved patient quality of life
- Reduced waste
- Safe to use (Vernon et al, 2019a).

Apply a hosiery liner that delivers up to 10mmHg in all patients with lower limb skin tears

Best Practice Statement

It is useful to note that, in patients with vulnerable skin, risk factors and incidence of skin tears can be linked to other related conditions – for example, skin tears may also link to leg ulcers and pressure damage (Bale et al, 2004; LeBlanc et al, 2016), therefore, holistic assessment and differential diagnosis, resulting in effective treatment, are all of key importance.

VASCULAR ASSESSMENT

In order to ensure that treatment is effective (and cost-effective), early assessment and differential diagnosis are key in managing lower limb skin tears (Wounds UK, 2019). Assessing ankle brachial pressure index (ABPI) should be considered an essential part of holistic assessment (Vernon et al, 2019b).

The purpose of all ABPI testing is to assess the presence or absence of peripheral arterial disease (PAD), as high compression should not be applied to patients with significant PAD (Wounds UK, 2019). It has been shown that early and efficient ABPI testing results in improved differential diagnosis, resulting in more efficient treatment and better outcomes for patients (Wounds UK, 2019). However, studies have identified that this vital element of assessment is not routinely performed (Gray et al, 2018; Guest et al, 2018).

Incorrect application of compression, or use of compression (over 10mmHg) in patients where PAD has not been ruled out, can result in pressure damage or tissue necrosis (Guttormsen and Smith, 2016).

Low levels of compression (10mmHg) should be considered for all patients with lower limb skin tears

Best Practice Statement

ABPI testing should be carried out in all patients with a non-healing lower limb skin tear (within 2 weeks) to rule out peripheral arterial disease (PAD) and ensure safe treatment

Best Practice Statement

If the patient has had a full vascular assessment, and the outcome shows it is safe to do so, compression may be increased to 40mmHg applied by a competent clinician

Best Practice Statement

Expect your clinician to check your blood flow and, based on this, you may be prescribed either a hosiery garment or bandaging

Patient expectation

It should be noted that in all patients receiving compression therapy, care should be taken to preserve skin integrity and ensure the skin is being cared for with appropriate emollient therapy alongside compression (LeBlanc et al, 2018).

Compression garments should be removed at least daily (although the dressing may stay in place) – with some recommendations for three times daily, by the patient or carer if possible – and a full skin inspection carried out to ensure that skin integrity is preserved and to check for any adverse event or evidence of pressure damage; if appropriate, a suitable product (e.g. emollient) can be applied at this point (LeBlanc et al, 2018).

Compression garments should be removed at least daily and a full skin inspection carried out

Best Practice Statement

Expect to be given instructions from your clinician to remove your compression garment daily to check your skin

Patient expectation

All patients should receive an individualised care plan and, if possible, should be informed and empowered to engage with their own care. Sharing a self-care checklist with patients, who either have a skin tear or are at risk, may help to engage them and improve healing (see Box 5).

2-WEEK ASSESSMENT

In the absence of complications, a skin tear should be healed – or showing signs of progressing to healing – within 2 weeks (Vernon et al, 2019a, 2019b). At this point, the assessment should take into account:

- At 2 weeks, if the wound has not healed but is showing signs of healing, treatment should be continued according to the pathway
- At 2 weeks, if the wound is failing to progress as expected, the plan should be reviewed based on full reassessment, including a more comprehensive vascular assessment if necessary
- If necessary, the patient should be referred, or care should be escalated to a specialist service – e.g. referral to a tissue viability nurse/service, vascular or dermatology department, plastic surgeon or GP.

Box 5. Self-care checklist for patients at risk of skin tears (adapted from LeBlanc et al, 2018)

- Have I been given an individualised care plan?
- Am I using an emollient/moisturiser every day?
- Am I eating sensibly and drinking enough water?
- Am I keeping as active and mobile as possible?
- Have I thought about wearing clothing to protect my skin (e.g. stockings, shin guards or tubular bandages)?
- Has my environment been made as safe as possible (e.g. adequate lighting, no obstacles and padding on furniture if required)?
- Am I wearing sensible/comfortable shoes to help avoid falls?

If the wound is failing to progress as expected in 2 weeks (or sooner if deterioration is observed), the patient and wound should be reassessed and care escalated if necessary

Best Practice Statement

Expect to be given instructions from your clinician to apply a moisturiser/emollient to your legs

Patient expectation

Management Pathway

The lower limb skin tear pathway presented in this best practice statement was originally developed for use at the Doncaster and Bassetlaw Teaching NHS Foundation Trust (Vernon et al, 2019a, 2019b) as part of a series of pathways that specified care by the skin tear location and the care setting.

The expert working group discussed and further developed the pathway, in order to agree and develop the essential steps required for all lower limb skin tears across all healthcare settings.

First aid and haemostasis:
- Control bleeding and elevate the limb if possible
- Manage pain with analgesia if necessary

Full holistic assessment
- The patient
- Their limb
- Their wound

Cleanse the wound
- Remove any debris or haematoma
- Debride if necessary

Assess the flap
- Reapproximate if possible
- Remove non-viable tissue if necessary

Classify according to the ISTAP system
- **Type 1** - No tissue loss
- **Type 2** - Partial tissue loss
- **Type 3** - Entire tissue loss

Document

Dress the wound
- Select a suitable dressing for use on skin tears
- Leave dressing in place for a minimum of 5 days (dependent on wound conditions)
- Mark with an arrow to indicate direction of removal

Measure the limb and select the appropriate size hosiery garment
- Up to 10mmHg in all patients who require compression
- Up to 40mmHg in patients who have had a full vascular assessment and been classified as suitable

Review, reassess and document
- Monitor for changes - e.g. infection, discolouration to flap
- If skin tear is not showing signs of improvement after 14 days, reassess and refer if necessary

Type 1 Skin tears without tissue loss

Type 2 Skin tears with partial tissue loss

Type 3 Skin tears with entire skin loss

Up to 10mmHg

Up to 40mmHg

Conclusion

The current view is that skin tears remain an under-recognised injury in clinical practice. Skin tears are traumatic wounds, which can significantly affect quality of life for patients. Skin tears of the lower limb in particular are likely to result in complications that can have a further impact on the patient.

Improved and consistent standardisation of terminology, classification and assessment should help to facilitate the implementation of a standardised care pathway that will improve outcomes for patients.

This document should provide the clinician with the knowledge and confidence to use the care pathway to manage lower limb skin tears across all care settings. This should result in improved clinical outcomes and, as a result, has the potential to significantly impact on improving the patients' quality of life.

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