Skin tears are a largely preventable common injury, particularly in the elderly. However, if not managed appropriately, they have the potential to develop into complex, chronic wounds. This article discusses their classification, why they are common in ageing skin, gives advice on correct wound management strategies and how assessing the patient and their environment and simple strategies can be employed to prevent their reoccurrence.

**KEYWORDS:** Skin tears | Skin care | Prevention | Classification

Skin tears tend to be dismissed as ‘just a skin tear’ — a minor wound — by some clinicians, however, if managed inappropriately, they have the potential to develop into complex, chronic wounds (Campbell et al, 2018). Chronic wounds have a negative impact on the patient’s quality of life in terms of pain and distress. There are also financial implications on the NHS as a result of increased hospital stays and increased resources, such as clinicians’ time and dressing costs (Vandervord et al, 2016). This article will discuss what skin tears are, how they develop, and strategies for effective management and prevention in the elderly population.

**WHAT IS A SKIN TEAR?**

A skin tear has been defined as:

*A traumatic injury occurring principally on the extremities of older adults as a result of shearing or friction forces, which separate the epidermis from the dermis (partial-thickness wound) or which separates both the epidermis and the dermis from underlying structures.*

(Payne and Martin, 1993)

The reason skin tears occur frequently in elderly people is that in ageing skin, dermal thickness reduces by 20%, and together with loss of elasticity and decreased tensile strength, these contribute to the paper-thin appearance of ageing skin (LeBlanc and Baranoski, 2009). In addition, the dermal-epidermal junction, which anchors the epidermis to the dermis, becomes flattened and weakened and, as a result, the slightest trauma can result in the separation of the epidermis and dermis, resulting in a skin tear (Koyano et al, 2016).

Skin tears can be located on any part of the body, but commonly occur on the arms and the pretibial crest on the lower leg (Kennedy and Kerse, 2011). Other intrinsic risk factors include dehydration or poor nutrition, cognitive impairment — which may result in aggressive behaviour — sensory impairment and other comorbidities, such as oedema and a history of skin tears or pretibial lacerations (LeBlanc and Baranoski, 2011). It should be noted that although these generally occur in older adults, they can also occur in neonates (LeBlanc and Baranoski, 2011).

Key extrinsic risk factors for skin tears include:

- Patients that need assistance with mobilisation and undertaking activities of daily living
- Long-term use of corticosteroids — oral or topical, as these thin the skin
- Reliance on devices to aid mobility, for example, Zimmer frames
- History of falls
- Dry and/or fragile skin
- Previous skin tears
- Ecchymosis and senile purpura
- Phlebotomy, removal of dressings during changes, tape and over-use of skin sealants.

(Adapted from LeBlanc and Baranoski, 2011; Porter, 2018).

It is difficult to establish the size of skin tear incidence as, until recently, a consistent approach to classification was lacking. These wounds were frequently misdiagnosed and incorrectly recorded (Campbell et al, 2018). Nevertheless, they are a significant problem for both patients and healthcare professionals (Campbell et al, 2018), and in response, several organisations have now produced international consensus guidance on their classification, management and prevention (LeBlanc and Baranoski, 2011; Campbell et al, 2018; Laggan Davis, 2018).

**CLASSIFICATION OF SKIN TEARS**

There are several classification tools for skin tears, for example, the Skin Integrity Risk Assessment Tool (White et al, 1994) and the Payne-Martin Classification System for Skin Tears (Payne and Martin, 1993).
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To provide a common language for the description and treatment of skin tears, the International Skin Tear Advisory Panel (ISTAP) developed a classification system that is now commonly used in clinical practice (LeBlanc et al, 2014). Figures 1, 2 and 3 give examples of the ISTAP classifications.

MANAGEMENT OF SKIN TEARS

The immediate priority for any skin tear is to control bleeding by applying pressure and elevating the limb, if required (Deroo et al, 2013). Once bleeding has been controlled, the wound needs to be cleaned with normal saline, sterile water or tap water, depending on the clinical setting and trust protocols. This will remove any blood clots and debris, such as grit, which may be in the wound bed as a result of trauma and will enable the skin tear to be fully visualised in order to assess and classify (Deroo et al, 2013).

Type 1 skin tears

For type 1 skin tears, the flap needs to be realigned and repositioned over the wound bed as soon as possible, without unduly stretching the flap (see Figure 1) (Deroo et al, 2013; Campbell et al, 2018). This is to restore the blood supply to the flap, which the epidermis receives from the dermis. If this is not done promptly, the skin flap will become necrotic and die (Lopez et al, 2011). The easiest way to do this is to use gloved fingers or forceps, or alternatively, apply a very wet gauze compress over the flap and leave for 5–10 minutes (Lopez et al, 2011).

Once realigned, the skin flap needs to be secured. Although skin flap injuries are acute wounds, which are commonly closed by sutures or staples, these are not recommended due to the fragility of the skin (Clothier, 2014). Back in 1985, a randomised controlled trial (RCT) found that pretibial lacerations responded best to conservative wound management, although the authors acknowledged that adhesive paper sutures may be beneficial rather than surgical sutures (Sutton and Pritty, 1985). However, more recent studies have concluded that adhesive strips should be avoided as they tend to be applied under tension and can increase trauma to the skin on removal (Meuleneire, 2003). However, unfortunately, these are still being used in clinical practice (Figure 4). Tissue glue may be used to secure the flap in small, uncomplicated cases (Stephen-Haynes and Carville, 2011).

More recently, the use of gentle atraumatic contact layers, such as Atrauman® (Paul Hartmann), Mepitel® (Mölnlycke), Silflex® (Advancis Medical) or Kliniderm® silicone wound contact layer (H&R Healthcare), has been recommended (LeBlanc et al, 2016). These products are ideally suited for anchoring the flap in place and can be left in situ for 5–7 days depending on exudate volume. However, the flap should initially be checked within 24–48 hours to ensure it is not pale, dusky or darkened in colour, indicating a reduced blood supply and a non-viable flap, or a developing wound infection (Clothier, 2014; Stephen-Haynes and Callaghan, 2017).

It is important to remove the atraumatic contact layer in the direction of the skin flap to avoid dislodging it (Clothier, 2014). A secondary dressing, which is suitable for use on fragile skin, with an extended wear time of up to 5 days to avoid frequent dressing changes, should be used (Clothier, 2014; Stephen-Haynes and Callaghan, 2017). If an atraumatic all-in-one adhesive dressing, such as Mepilex® Border (Mölnlycke), Allevyn® Gentle Border (Smith & Nephew), or Kliniderm® foam silicone (H&R Healthcare) is used, an arrow should be drawn onto the dressing to indicate the direction of removal to prevent reopening the skin flap (All Wales Tissue Viability Nurse Forum, 2011). Depending on the location of a skin tear, non-adhesive dressings, such as foams, secured with a light bandage should be considered. Hydrocolloids and film dressings should be avoided as they may cause additional skin trauma on removal and adhesive removers should be considered if dressing removal is difficult (LeBlanc et al, 2013; 2016; Stephen-Haynes and Callaghan, 2017).

Figure 1. Type 1 skin tear — no skin loss. Flap can be repositioned to cover the wound bed.

Figure 2. Type 2 partial flap loss. This is where the flap cannot be repositioned to cover the wound bed.

Figure 3. Type 3 skin tear — total skin loss.

Figure 4. Skin flap repositioned with adhesive paper sutures. These will be difficult to remove without causing additional skin trauma.
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References

**Type 2 skin tears**

Type 2 skin tears (Figure 2) are where there is partial flap loss, which cannot be repositioned to cover the wound bed (Stephen-Haynes and Callaghan, 2017). If it is relatively easy to cut the remnants of the flap off with sterile scissors without causing further trauma or bleeding, this can be done by healthcare professionals. However, if there is any doubt about undertaking this, specialist advice should be initially sought from a tissue viability specialist nurse. Once the skin flap has been removed, the wound should be managed as for type 1 skin tears.

**Type 3 skin tears**

This is where there is complete flap loss with the wound bed exposed (Figure 3). Dressings selected should be dependent on the condition of the wound bed, for example, a clean, granulating wound, a sloughy wound bed, presence of wound infection and exudate volume (Clothier, 2014). However, the principles of protecting the fragile skin still apply and products should have an extended wear time and facilitate trauma-free removal (Clothier, 2014).

**Complex skin tears**

*Figure 5* is an example of a complex skin tear caused by a wheelchair. In this case, there was significant bleeding and haematoma formation, which required surgical review and intervention (Stephen-Haynes and Callaghan, 2017). Following surgical debridement, evacuation of the haematomas and stabilisation of the patient’s INR (international normalised ratio — a laboratory measurement that works out how long it takes the blood to clot) (Health Engine, 2017), the skin flap eventually healed.

*Figures 6–9* demonstrate the management of a complex skin tear, which resulted from a wheelchair footrest (*Figure 6*). On initial assessment, the skin flap was necrotic and non-viable and was removed surgically (*Figure 7*). Following surgical debridement, the wound bed continued to develop persistent slough and necrotic tissue and three applications of larval therapy were instigated to aid rapid debridement (*Figure 8*). Figure 9 shows the wound post-larval therapy with a clean, granulating wound bed. The patient had lower limb oedema as a result of venous disease and, following the use of compression therapy, the wound progressed to healing after four months. From the author’s clinical experience, compression therapy to manage skin tears, particularly pretibial lacerations in patients with co-existing venous disease, can accelerate healing and produce excellent results (Beldon, 2008; Le Blanc et al, 2013; 2016). Before implementing this, however, full assessment, including vascular status, should be undertaken.

**PREVENTION OF SKIN TEARS**

Although skin tears occur frequently, there are some strategies that can help to reduce their incidence in elderly patients.
Skin care

- Ensure the patient’s skin is well-hydrated with a bland moisturising cream, as dry skin is a risk factor for skin tears (Porter, 2018).
- Use adhesive removers at dressing change if required and skin protection barrier creams to protect vulnerable skin. However, over-usage can make dressing removal difficult and can result in additional skin trauma.
- Encourage patients to pat their skin dry after washing and showering, rather than rubbing (Porter, 2018).

Everyday activities and mobility aids

- Most skin tears occur as a result of blunt or mechanical trauma, such as pulling off clothes when getting changed (Stephen-Haynes and Callaghan, 2017). It may therefore be helpful to protect areas vulnerable to skin tears with protective clothing, such as long sleeves, trousers, shin and elbow guard pads (LeBlanc and Baranoski, 2018).
- If the skin tear occurs as a result of a fall, it may be necessary to create a safe environment for the patient, for example, removing rugs and furniture, such as a night table in the bedroom, and position the furniture to avoid unnecessary bumps or knocks (Stephen-Haynes and Callaghan, 2017). It may be necessary also to increase lighting to avoid accidents. However, these strategies can only be implemented with the patient or family’s permission.
- If the patient needs mobility aids or help with repositioning or personal care, ensure that slide sheets and slings are used to reduce the risk of skin tears occurring.

Nutrition and polypharmacy

- If the patient sustains a skin tear as a result of a fall, it may be helpful to request a medication review, as some medications, such as the long-term use of antihypertensives can lower blood pressure too much and make the patient feel dizzy and vulnerable to falling.
SKIN TEARS

- If the patient is taking topical or oral corticosteroids, these will make their skin thinner and more prone to skin tears. Reviewing the need for these regularly may help to reduce the risk of skin tears (LeBlanc and Baranoski, 2018).
- Patients with dehydrated skin, or who are severely under/overweight may benefit from nutritional assessment to optimise nutrition and hydration to help with wound healing (LeBlanc and Baranoski, 2018).

CONCLUSION

This article has discussed how and why skin tears occur and how they should be classified to ensure a common language. This is particularly important when documenting wounds and liaising with other healthcare professionals. The wound management of all skin tear types has been discussed, together with some suggestions for prevention strategies to reduce their occurrence in the elderly population. The article also highlights that, although often dismissed as just a minor wound, if managed inappropriately, a skin tear has the potential to develop into a chronic, complex wound, posing challenges for healthcare professionals, together with negative effects on quality of life and an increased burden on healthcare budgets.

REFERENCES


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