



Wound assessment

Te aromatawai taotū

The information in this guide is accurate to the best of our knowledge as of June 2023.

Definition

Wound assessment is the initial and follow-up collection of information about a person's wound, their health history (physical, cognitive, behavioural, spiritual, mental and functional) and environmental factors to understand likely cause of the wound, plan management approaches and assess the healing process. It is necessary to physically examine the person (for their general health and wellbeing) and the wound to complete a comprehensive wound assessment (Dowsett et al 2015; Phillips et al 2020; Swanson 2014).

Key point

- Efficient wound healing requires optimum management of the person's general health as well as specific wound management (Dowsett et al 2015; Phillips et al 2020).

Why this is important

Wound assessment provides the foundation for wound care treatment planning, measuring wound healing progress and prompt referral for non-healing or deteriorating wounds (Dowsett et al 2015; Phillips et al 2020). Wound assessment must occur before wound care goals ultimately leading to wound healing can be determined.

In some circumstances (where the person is terminally ill or has untreatable vessel disease), wound healing may not be realistic. In these cases, wound assessment aims to identify wound aetiology and wound care goals include patient comfort and infection prevention.

Implications for kaumātua*

When completing a wound assessment with kaumātua, it is important to observe the interconnected principles of mana (dignity, prestige, status), tapu (sacred, prohibited, restricted) and noa (neutral, ordinary, unrestricted). See the *Guide for health professionals caring for kaumātua | Kupu arataki mō te manaaki kaumātua* for more information.

Traditionally, mana increases with age (so kaumātua are highly regarded) and as mana increases so does tapu (Mead 2016). All people (and their body fluids) are tapu; the head and sex organs are the most tapu of all. Items that touch the body, especially the head, carry the individual's tapu.

* Kaumātua are individuals and their connection with culture varies. This guide provides a starting point for a conversation about some key cultural concepts with kaumātua and their whānau/family. It is not an exhaustive list; nor does it apply to every person who identifies as Māori. It remains important to avoid assuming all concepts apply to everyone and to allow care to be person and whānau/family led.

It is vital to keep tapu and noa separated and balanced to avoid a breach of tapu. Traditionally breaching tapu incurs the wrath of the **atua** (gods), which can have a significant spiritual and emotional impact on kaumātua and **whānau**/family.

In practice, observing these principles means that you:

- avoid damage to tapu and mana by asking for permission to enter personal space (tapu) and to touch the person – touching the head in particular is seen as an intimate act
- keep tapu and noa separate by keeping wound assessment supplies off food or drink surfaces, away from toileting equipment and away from the head and the pillows that the head rests on.

Bear in mind that kaumātua may feel **whakamā** (shame, embarrassment) about showing an outsider their wound. As a result, they may be reluctant to participate in wound assessment or may under-report their symptoms.

Assessment

A wound assessment considers: (World Union of Wound Healing Societies 2020)

- Health and environmental factors impacting wound healing, eg, medical conditions, medication, nutrition, hydration and exercise, mental wellbeing, smoking
- Wound-specific factors: unrelieved pressure, infection
- Wound duration factors:^{*}
 - acute wounds are new with sudden onset. They tend to heal in 6 weeks or less. Examples include skin tears, surgical incisions
 - hard-to-heal wounds (previously called chronic wounds) do not heal in a timely manner; they take longer than 6 weeks to heal or reduce by half; examples include pressure injuries, leg ulcers.

^{*} Wound healing times vary: as a pragmatic guide this document suggests acute wounds heal or reduce by at least 50 percent in 6 weeks and hard-to-heal wounds take longer than 6 weeks to reduce by half or heal.

Tissue type: assess wound bed tissue and percentage of each tissue type

Necrotic tissue or eschar



Black or brownish, dehydrated, dead tissue, looks 'leathery' and is usually dry.

Wounds with eschar on lower leg or foot: Keep dry and complete **urgent** referral to specialist services (vascular).

Slough



Cream or yellow dead fibrous tissue, can be dry or moist.

Needs debriding with dressings. If dry, donate moisture; if wet, absorb exudate.

Beware tissue such as fat, tendons, bones and ligaments also appear yellow. Any suspicion that underlying structures can be seen in a wound requires **urgent** referral to GP/NP specialist services.

Granulating tissue



Bright-red, bumpy texture, initially pink then beefy red – **this is normal healing tissue.**

Protect and promote tissue growth with moist healing environment.

Hypergranulation tissue: is an overgrowth of granulating tissue it sits above the usual level of the skin. It is important to get this tissue checked by GP/NP as can be malignant. Referral to specialist wound service may be necessary to get treatment advice.

Epithelising tissue



Pink, flat covering tissue.

Protect from trauma and keep moist.

Infection: assess for infection (IWII 20202) Take a swab if you note symptoms.

Local infection (subtle): delayed healing

- Hypergranulation
- Bleeding, friable granulation tissue
- Epithelial bridging and pocketing
- Increased exudate
- Delayed wound healing

Local infection (overt): wound breakdown

- Redness, warm and swollen tissue
- Purulent discharge
- Wound breakdown or increase size
- New or increased pain
- Malodour

Spreading infection: wound breakdown

- Extending redness, warm and swollen tissue
- Inflammation > 2 cm from wound edge
- Wound breakdown or increased size
- Possible lymph node swelling

Systemic infection: rapid wound breakdown and acutely unwell older person

All signs of infection plus:

- Cellulitis, abscess or pus
- New or increased confusion/delirium
- Lethargy/sleeping more
- Mood or behaviour change
- Pyrexia, fever, chills or hypothermia,
- Hypotension, tachycardia
- Swollen lymph nodes (lymphangitis)
- Sepsis

Moisture or exudate

Moist (not wet or dry) wound environments promote wound healing. Assess wound environment and volume of exudate to determine the need to either add or absorb moisture

Edge of wound: assess wound edge and periwound (up to 4 cm around wound)

Maceration

- White, soggy surrounding tissue
- Protect surrounding skin with barrier film or cream
 - Review frequency of dressing changes and absorbency of products

Dehydration

- Hard, dry surrounding skin
- Rehydrate or moisturise

Undermining

- Loss of tissue under wound edges
- Establish depth and stimulate granulation

Rolled edges

- Raised, rolled edges around wound
- These can present in older non-healing wounds; consider excluding malignancy

Hyperkeratosis or callus

- Hard, dead skin plaques
- Remove and rehydrate
 - Seek specialist advice

Eczema (wet or dry)

- If non-responsive to basic moisturisers review need for steroid therapy with nurse practitioner or general practitioner. May need dermatology review

Decision support

Identify wound type	<input type="checkbox"/> Pressure injury <input type="checkbox"/> Skin tear <input type="checkbox"/> Surgical <input type="checkbox"/> Palliative
Assess local factors affecting wound healing	<input type="checkbox"/> Impaired blood supply <input type="checkbox"/> Age of wound <input type="checkbox"/> Local infection <input type="checkbox"/> Dehydration <input type="checkbox"/> Mechanical stress <input type="checkbox"/> Wound location
Assess systemic factors affecting wound healing	<input type="checkbox"/> Nutritional status: protein, fat, carbohydrates, vitamins and minerals in diet <input type="checkbox"/> Presence of dehydration due to excess wound exudate <input type="checkbox"/> Weight: cachexia delays healing, obesity can put stress on wound <input type="checkbox"/> Stress hormones <input type="checkbox"/> Medication: immunosuppressants, anti-inflammatories, anticoagulants <input type="checkbox"/> Lack of rest/sleep <input type="checkbox"/> Circulation (poor arterial and venous blood flow) <input type="checkbox"/> Mental wellbeing helps person adhere to treatment
Measure wound size (and photograph)	<input type="checkbox"/> Length in head-to-toe direction, lateral width <input type="checkbox"/> Photograph: tape measure next to wound in head-to-toe direction <input type="checkbox"/> Depth: probe deepest area and measure <input type="checkbox"/> Consider undermining
Assess tissue loss and estimate healing time by: <ul style="list-style-type: none"> tissue loss or pressure injury stage 	<input type="checkbox"/> Superficial: loss epidermis (painful) 10-14 days <input type="checkbox"/> Partial: loss dermis (may be painful) 14-21 days <div style="border: 1px solid red; padding: 5px;"> <p>REFER to wound specialist service</p> <input type="checkbox"/> Deep: more dermis destroyed (less painful, nerve damage) > 21 days <input type="checkbox"/> Full thickness: epidermis, dermis and subcutaneous layers destroyed, may include muscle, tendon, bone, ligament or hidden due to eschar/slough (not painful, nerves destroyed), may need surgery </div>
Describe wound bed	<input type="checkbox"/> Slough: cream/yellow, dry or moist <input type="checkbox"/> Granulation: red, bumpy <input type="checkbox"/> Hypergranulation: proud tissue <input type="checkbox"/> Epithelising: pink, migrating skin cells <div style="border: 1px solid red; padding: 5px;"> <p>REFER to wound specialist service</p> <input type="checkbox"/> Necrotic: dehydrated dead tissue: HIGH RISK keep dry until seen by specialist </div>
Assess wound edge	<input type="checkbox"/> Healthy <input type="checkbox"/> Fragile <input type="checkbox"/> Red <div style="border: 1px solid red; padding: 5px;"> <input type="checkbox"/> Macerated: may need specialist advise to manage exudate <input type="checkbox"/> Oedematus: REFER NP/GP <input type="checkbox"/> Rolled: malignant or chronic REFER GP/NP </div>
Describe: <ul style="list-style-type: none"> Exudate type/volume Usually ↓ exudate as wound heals 	<input type="checkbox"/> Serous: clear or light-coloured watery liquid (normal) <input type="checkbox"/> Haemoserous: blood-stained serous (normal) <input type="checkbox"/> Sanguinous: frank blood or heavily blood stained <input type="checkbox"/> Purulent (pus): thick, opaque yellow, green, white or tan colour <input type="checkbox"/> Haemopurulent: bloody pus <input type="checkbox"/> Malodorous: usually infection (check after dressing removal and wound cleaning) Volume (dressing saturation): <input type="checkbox"/> Dry <input type="checkbox"/> Moist <input type="checkbox"/> Wet <input type="checkbox"/> Saturated <input type="checkbox"/> Leaking
Assess for presence of infection – swab if indicated	<input type="checkbox"/> Local (subtle or overt): risks delays in healing. No progress in 2 weeks, fragile tissue consider wound specialist advice <div style="border: 1px solid red; padding: 5px;"> <input type="checkbox"/> Spreading: redness, swelling, wound breakdown REFER GP/NP <input type="checkbox"/> Systemic: unwell patient REFER GP/NP </div>
Assess periwound (up to 4 cm around wound)	<input type="checkbox"/> Consider: is maceration related to dressing choice or wound oedema? <div style="border: 1px solid red; padding: 5px;"> <p>REFER to wound specialist service</p> <input type="checkbox"/> Hyperkeratosis, callus </div> <div style="border: 1px solid red; padding: 5px;"> <p>REFER NP/GP</p> <input type="checkbox"/> Eczema </div>
Complete wound documentation	<ul style="list-style-type: none"> Wounds that do not heal or reduce by 50% in 6 weeks are considered hard to heal Lower-leg wounds that do not heal in or reduce by 50% in 6 weeks are leg ulcers People with diabetes and foot or leg ulcers need specialist review – do not delay

References | Ngā tohutoro

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