Subjective Assessment

During a subjective assessment of a patient’s integumentary system, begin by asking about current symptoms such as itching, rashes, or wounds. If a patient has a wound, it is important to determine if a patient has pain associated with the wound so that pain management can be implemented. For patients with chronic wounds, it is also important to identify factors that delay wound healing, such as nutrition, decreased oxygenation, infection, stress, diabetes, obesity, medications, alcohol use, and smoking. See Table 10.6a for a list of suggested interview questions to use when assessing a patient with a wound.

If a patient has a chronic wound or is experiencing delayed wound healing, it is important for the nurse to assess the impact of the wound on their quality of life. Several studies have shown that patients with nonhealing wounds have a decreased quality of life. Reasons for this include the frequency and regularity of dressing changes, which affect daily routine; a feeling of continued fatigue due to lack of sleep; restricted mobility; pain; odor; and the side effects of multiple medications. The loss of independence associated with functional decline can also lead to changes in overall health and well-being. These changes include altered eating habits, depression, social isolation, and a gradual reduction in activity levels.

Table 10.6a Interview Questions Related to Integumentary Disorders

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Questions</th>
<th>Follow-up Questions</th>
</tr>
</thead>
</table>

[1] See Table 10.6a for a list of suggested interview questions to use when assessing a patient with a wound.

[2] If a patient has a chronic wound or is experiencing delayed wound healing, it is important for the nurse to assess the impact of the wound on their quality of life. Several studies have shown that patients with nonhealing wounds have a decreased quality of life. Reasons for this include the frequency and regularity of dressing changes, which affect daily routine; a feeling of continued fatigue due to lack of sleep; restricted mobility; pain; odor; and the side effects of multiple medications. The loss of independence associated with functional decline can also lead to changes in overall health and well-being. These changes include altered eating habits, depression, social isolation, and a gradual reduction in activity levels.
<table>
<thead>
<tr>
<th>Current Symptoms</th>
<th>Are you currently experiencing any skin symptoms such as itching, rashes, or an unusual mole?</th>
<th>Please describe.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wounds</td>
<td>Do you have any current wounds such as a surgical incision, skin tear, arterial ulcer, venous ulcer, diabetic or neuropathic ulcer, or a pressure injury?</td>
<td>Please describe.</td>
</tr>
<tr>
<td>If a wound is present:</td>
<td></td>
<td>Use the PQRSTU method to comprehensively assess pain. Read more about the PQRSTU method in the “Pain Assessment Methods” section of the “Comfort” chapter.</td>
</tr>
<tr>
<td>Medical History</td>
<td>Have you ever been diagnosed with a wound related to diabetes, heart disease, or peripheral vascular disease?</td>
<td>Please describe.</td>
</tr>
<tr>
<td>If chronic wounds or wounds with delayed healing are present:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medications</td>
<td>Are you taking any medications that can affect wound healing, such as oral steroids to treat inflammation or help you breathe?</td>
<td>Please describe.</td>
</tr>
<tr>
<td>Treatments</td>
<td>What have you used to try to treat this wound?</td>
<td>What was successful? Unsuccessful?</td>
</tr>
<tr>
<td>Symptoms of Infection (pain, purulent drainage, etc.)</td>
<td>Are you experiencing any symptoms of infection related to this wound such as increased pain or yellow/green drainage?</td>
<td>Please describe.</td>
</tr>
<tr>
<td>Stress</td>
<td>Have you experienced any recent stressors such as surgery, hospitalization, or a change in life circumstances?</td>
<td>How do you cope with stress in your life?</td>
</tr>
<tr>
<td>Smoking</td>
<td>Do you smoke?</td>
<td>How many cigarettes do you smoke a day? How long have you smoked? Have you considered quitting smoking?</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>Has this wound impacted your quality of life?</td>
<td>Have you had any changes in eating habits,</td>
</tr>
</tbody>
</table>
When performing an objective integumentary assessment on a patient receiving inpatient care, it is important to perform a thorough exam on admission to check for existing wounds, as well as to evaluate their risk of skin breakdown using the Braden Scale. Agencies are not reimbursed for care of pressure injuries received during a patient’s stay, so existing wounds on admission must be well-documented. Routine skin assessment should continue throughout a patient’s stay, usually on a daily or shift-by-shift basis based on the patient’s condition. If a wound is present, it is assessed during every dressing change for signs of healing. See Table 10.6b for components to include in a wound assessment. See Figure 10.22 for an image of a common tool used to document the location of a skin concern found during assessment.

Note

Read more information about performing an overall integumentary assessment in the “Integumentary Assessment” chapter in Open RN Nursing Skills.

For additional discussion regarding assessing wounds, go to the “Assessing Wounds” section of the “Wound Care” chapter in Open RN Nursing Skills.

Table 10.6b Wound Assessment

<table>
<thead>
<tr>
<th>Wound Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
</tr>
<tr>
<td>Types of wounds may include abrasions, lacerations, burns, surgical incisions, pressure injuries, skin tears, arterial ulcers, or venous ulcers. It is important to understand the type of wound present to select appropriate interventions.</td>
</tr>
<tr>
<td><strong>Location</strong></td>
</tr>
<tr>
<td>The location of the wound should be documented precisely. A body diagram template is helpful to demonstrate exactly where the wound is located.</td>
</tr>
<tr>
<td><strong>Size</strong></td>
</tr>
<tr>
<td>Wound size should be measured regularly to determine if the wound is increasing or decreasing in size. Length is measured using the head-to-toe axis, and width is measured laterally. If tunneling or undermining is present, their depth should be assessed using a sterile, cotton-tipped applicator and documented using the clock method.</td>
</tr>
<tr>
<td><strong>Degree of Tissue Injury</strong></td>
</tr>
<tr>
<td>Wounds are classified as partial-thickness (meaning the epidermis and dermis are affected) or full-thickness (meaning the subcutaneous and deeper layers are affected). See Figure 10.1 in the “Basic Concepts” section for an image of the layers of skin.</td>
</tr>
<tr>
<td><strong>Color of Wound</strong></td>
</tr>
<tr>
<td>Assess the base of the wound for the presence of healthy, pink/red granulation tissue. Note the unhealthy appearance of dark red granulation tissue, white or yellow slough, or brown or black</td>
</tr>
</tbody>
</table>
The color, consistency, and amount of exudate (drainage) should be assessed and documented at every dressing change. Drainage from wounds is often described as scant, small/minimal, moderate, and large/copious amounts. Use the following descriptions to select the appropriate terms:

- The type of wound drainage should be described using medical terms such as serosanguinous, sanguineous, serous, or purulent:
  - **Sanguineous**: Sanguineous exudate is fresh bleeding.
  - **Serous**: Serous drainage is clear, thin, watery plasma. It’s normal during the inflammatory stage of wound healing, and small amounts are considered normal wound drainage.
  - **Serosanguinous**: Serosanguineous exudate contains serous drainage with small amounts of blood present.
  - **Purulent**: Purulent exudate is thick and opaque. It can be tan, yellow, green, or brown in color. It is never considered normal in a wound bed, and new purulent drainage should always be reported to the health care provider.

See Figure 10.23 for an image of purulent drainage.

Check for patency and if they are attached correctly.

Assess for signs and symptoms of infection, which include the following:

- Redness
- Warmth of surrounding tissue
- Swelling
- Tenderness or pain
- Purulent drainage
- Fever
- Increased white blood cell count

Assess the surrounding skin for maceration or signs of infection.

Assess for pain in the wound or during dressing changes. If pain is present, use the PQRSTU or OLDCARTES method to obtain a comprehensive pain assessment.
PRESSURE ULCER IDENTIFICATION POCKET PAD

Place the patient's/resident's name on the top of the pad, date it and place an “X” on the area on the body where you see the skin concern. Give this to the nurse and ask him or her to check the patient/resident. They will follow up as needed.

Date: ___________ Time: _______________
Patient's/Resident's Name: _______________________
Reporter: _______________________

Figure 10.22 Skin Concern Documentation
Figure 10.23 Purulent Drainage

See Table 10.6c for a comparison of expected versus unexpected findings on integumentary assessment.

Table 10.6c Expected Versus Unexpected Findings

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Expected Findings</th>
<th>Unexpected Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>Color: appropriate for ethnicity</td>
<td>Color: pale, white, red, yellow, purple, black and blue</td>
</tr>
<tr>
<td></td>
<td>Temperature: warm to touch</td>
<td>Temperature: cool or hot to touch</td>
</tr>
</tbody>
</table>
Texture: smooth, soft, and supple

Turgor: resilient

Integrity: no wounds or lesions noted

Sensory: no pain or itching noted

Hair

Full distribution of hair on the head, axilla, and genitalia

Alopecia (hair loss), hirsutism (excessive hair growth over body), lice and/or nits, or lesions under hair

Nails

Smooth, well-shaped, and firm but flexible

Cracked, chipped, or splitting nail; excessively thick; presence of clubbing; ingrown nails

Skin

Skin intact with no wounds or pressure injuries. Braden Scale is 23

A wound or pressure injury is present, or there is risk of developing a pressure injury with a Braden scale score of less than 23

Diagnostic and Lab Work

When a chronic wound is not healing as expected, laboratory test results can provide additional clues for the delayed healing. See Table 10.6d for a summary of lab results that offer clues to systemic issues causing delayed wound healing.[10]

Table 10.6d Lab Values Associated with Delayed Wound Healing[11]

<table>
<thead>
<tr>
<th>Abnormal Lab Value</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low hemoglobin</td>
<td>Low hemoglobin indicates less oxygen is transported to the wound site.</td>
</tr>
<tr>
<td>Elevated white blood cells (WBC)</td>
<td>Increased WBC indicates infection is occurring.</td>
</tr>
<tr>
<td>Low platelets</td>
<td>Platelets have an important role in the creation of granulation tissue.</td>
</tr>
<tr>
<td>Low albumin</td>
<td>Low albumin indicates decreased protein levels. Protein is required for effective wound healing.</td>
</tr>
<tr>
<td>Elevated blood glucose or</td>
<td>Elevated blood glucose and hemoglobin A1C levels indicate poor management of diabetes mellitus, a disease that negatively impacts wound healing.</td>
</tr>
</tbody>
</table>
Elevated serum BUN and creatinine

Elevated BUN (blood urea nitrogen) and creatinine levels are indicators of kidney function, with elevated levels indicating worsening kidney function. Elevated BUN levels impact wound healing.

Positive wound culture

Positive wound cultures indicate an infection is present and provide additional information including the type and number of bacteria present, as well as identifying antibiotics the bacteria is susceptible to. The nurse reviews this information when administering antibiotics to ensure the prescribed therapy is effective for the type of bacteria present.

Life Span and Cultural Considerations

Newborns and Infants

Newborn skin is thin and sensitive. It tends to be easy to scratch and bruise and is susceptible to rashes and irritation. Common rashes seen in newborns and infants include diaper rash (contact dermatitis), cradle cap (seborrheic dermatitis), newborn acne, and prickly heat.

Toddlers and Preschoolers

Because of high levels of activity and increasing mobility, this age group is more prone to accidents. Issues like lacerations, abrasions, burns, and sunburns can occur frequently. It is important to be highly aware of the potential for accidents and implement safety precautions as needed.

School-Aged Children and Adolescents

Skin rashes tend to affect skin within this age group. Impetigo, scabies, and head lice are commonly seen and may keep children home from school. Acne vulgaris typically begins during adolescence and can alter physical appearance, which can be very upsetting to this age group. Another change during adolescence is the appearance of axillary, pubic, and other body hair. Also, as these children spend more time out of doors, sunburns are more common, and care should be given to encourage sunscreen and discourage the use of tanning beds.

Adults and Older Adults

As skin ages, many changes take place. Because aging increases the loss of subcutaneous fat and collagen breakdown, skin becomes thinner and wrinkles deepen. Decreased sweat gland activity leads to drier skin and pruritus (itching). Healing is slowed because of reduced circulation and the inability of proteins and proper nutrients to arrive at injury sites. Hair loses pigmentation and turns gray or white. Nails become thicker and are more difficult to cut. Age or liver spots become darker and more noticeable. The number of skin growths increases and includes skin tags and keratoses. There is often delayed wound healing in older adults.
Diagnoses

There are several NANDA-I nursing diagnoses related to patients experiencing skin alterations or those at risk of developing a skin injury. See Table 10.6e for common NANDA-I nursing diagnoses and their definitions.

Table 10.6e Common NANDA-I Nursing Diagnoses Related to Integumentary Disorders

- **Risk for Pressure Injury**: “Susceptible to localized injury to the skin and/or underlying tissue usually over a bony prominence as a result of pressure, or pressure in combination with shear.”

- **Impaired Skin Integrity**: “Altered epidermis and/or dermis.”

- **Risk for Impaired Skin Integrity**: “Susceptible to alteration in epidermis and/or dermis, which may compromise health.”

- **Impaired Tissue Integrity**: “Damage to the mucous membrane, cornea, integumentary system, muscular fascia, muscle, tendon, bone, cartilage, joint capsule, and/or ligament.”

- **Risk for Impaired Tissue Integrity**: “Susceptible to damage to the mucous membrane, cornea, integumentary system, muscular fascia, muscle, tendon, bone, cartilage, joint capsule, and/or ligament, which may compromise health.”

A commonly used NANDA-I nursing diagnosis for patients experiencing alterations in the integumentary system is *Impaired Tissue Integrity*, defined as, “Damage to the mucous membrane, cornea, integumentary system, muscular fascia, muscle, tendon, bone, cartilage, joint capsule, and/or ligament.”

To verify accuracy of this diagnosis for a patient, the nurse compares assessment findings with defining characteristics of that diagnosis. Defining characteristics for *Impaired Tissue Integrity* include the following:

- Acute pain
- Bleeding
- Destroyed tissue
- Hematoma
- Localized area hot to touch
- Redness
- Tissue damage

A sample NANDA-I diagnosis in current PES format would be: “*Impaired Tissue Integrity related to insufficient knowledge about protecting tissue integrity as evidenced by redness and tissue damage.*”

Outcome Identification

An example of a broad goal for a patient experiencing alterations in tissue integrity is:

- The patient will experience tissue healing.
A sample SMART expected outcome for a patient with a wound is:

- **The patient’s wound will decrease in size and have increased granulation tissue within two weeks.**

### Planning Interventions

In addition to the interventions outlined under the “Braden Scale” section to prevent and treat pressure injury, see the following box for a list interventions to prevent and treat impaired skin integrity. As always, consult a current, evidence-based nurse care planning resource for additional interventions when planning patient care.

**Selected Interventions to Prevent and Treat Impaired Skin Integrity**

- Assess and document the patient’s skin status routinely. (Frequency is determined based on the patient’s status.)
- Use the Braden Scale to identify patients at risk for skin breakdown. Customize interventions to prevent and treat skin breakdown according to patient needs.
- If a wound is present, evaluate the healing process at every dressing change. Note and document characteristics of the wound, including size, appearance, staging (if applicable), and drainage. Notify the provider of new signs of infection or lack of progress in healing.
- Provide wound care treatments, as prescribed by the provider or wound care specialist, and monitor the patient’s response toward expected outcomes.
- Cleanse the wound per facility protocol or as ordered.
- Maintain non-touch or aseptic technique when performing wound dressing changes, as indicated. (Read more details about using aseptic technique and the non-touch method in the “Aseptic Technique” chapter of the Open RN Nursing Skills textbook.)
- Change wound dressings as needed to keep them clean and dry and prevent bacterial reservoir.
- Monitor for signs of infection in an existing wound (as indicated by redness, warmth, edema, increased pain, reddened appearance of surrounding skin, fever, increased white blood cell count, changes in wound drainage, or sudden change in patient’s level of consciousness).
- Apply lotion to dry areas to prevent cracking.
- Apply lubricant to moisten lips and oral mucosa, as needed.
- Keep skin free of excess moisture. Use moisture barrier ointments (protective skin barriers) or incontinence products in skin areas subject to increased moisture and risk of skin breakdown.
- Educate the patient and/or family caregivers on caring for the wound and request return demonstrations, as appropriate.
- Administer medications, as prescribed, and monitor for expected effects.
- Consult with a wound specialist, as needed.
- Obtain specimens of wound drainage for wound culture, as indicated, and monitor results.
- Advocate for pressure-relieving devices in patients at risk for pressure injuries, such as elbow protectors, heel protectors, chair cushions, and specialized mattresses and monitor the patient’s response.
- Promote adequate nutrition and hydration intake, unless contraindicated.
- Use a minimum of two-person assistance and a draw sheet to pull a patient up in bed to minimize shear and friction.
- Reposition the patient frequently to prevent skin breakdown and to promote healing. The immobilized patient at...
least every two hours, according to a specific schedule.

- Maintain a patient’s position at 30 degrees or less, as appropriate, to prevent shear.
- Keep bed linens clean, dry, and wrinkle free.

### Implementation

Before implementing interventions, it is important to assess the current status of the skin and risk factors present for skin breakdown and modify interventions based on the patient’s current status. For example, if a patient’s rash has resolved, some interventions may no longer be appropriate (such as applying topical creams). However, if a wound is showing signs of worsening or delayed healing, additional interventions may be required. As always, if the patient demonstrates new signs of localized or systemic infection, the provider should be notified.

### Evaluation

It is important to evaluate for healing when performing wound care. Use the following expected outcomes when evaluating wound healing:

- Resolution of periwound redness in 1 week
- 50% reduction in wound dimensions in 2 weeks
- Reduction in volume of exudate
- 25% reduction in amount of necrotic tissue/eschar in 1 week
- Decreased pain intensity during dressing changes

If a patient is experiencing delayed wound healing or has a chronic wound, it is helpful to advocate for a referral to a wound care nurse specialist.

### Note

Read a [sample nursing care plan](https://www.ahrq.gov/patient-safety/settings/hospital/resource/pressureulcer/tool/pu7b.html) for a patient with impaired skin integrity.

4. Wound Care Advisor. (n.d.). *Exudate amounts.* [https://woundcareadvisor.com/exudate-amounts/#:~:text=Small%20or%20minimal%20amount%20of,than%2075%25%20of%20the%20bandage](https://woundcareadvisor.com/exudate-amounts/#:~:text=Small%20or%20minimal%20amount%20of,than%2075%25%20of%20the%20bandage)
5. Wound Care Advisor. (n.d.). *Wound exudate types.* [https://woundcareadvisor.com/wound-exudate-types/#:~:text=Serous%20drainage%20is%20clear%2C%20thin,may%20indicate%20a%20high%20bioburden](https://woundcareadvisor.com/wound-exudate-types/#:~:text=Serous%20drainage%20is%20clear%2C%20thin,may%20indicate%20a%20high%20bioburden)
6. Wound Care Advisor. (n.d.). *Wound exudate types.* [https://woundcareadvisor.com/wound-exudate-types/#:~:text=Serous%20drainage%20is%20clear%2C%20thin,may%20indicate%20a%20high%20bioburden](https://woundcareadvisor.com/wound-exudate-types/#:~:text=Serous%20drainage%20is%20clear%2C%20thin,may%20indicate%20a%20high%20bioburden)
9. “Purulent knee aspirate.JPG” by James Heilman, MD is licensed under CC BY 3.0