

# HCOQU CARES

Fall 2018 Edition

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# Introduction

Proper care of the skin is an important aspect of personal hygiene, and it is one of the most important areas to consider when teaching people with intellectual and developmental disabilities. Good skin care contributes to the prevention of illnesses and infections. Proper care of the skin not only includes hygiene measures, but also measures to relieve pressure areas on the skin. We all unconsciously move about to relieve pressure when lying or sitting. Some people that you support may require assistance to relieve the pressure, most often due to the inability to move independently. When pressure to the skin is not relieved, a pressure injury can occur. According to the National Pressure Ulcer Advisory Panel, a pressure injury is defined as “localized damage to the skin and/or underlying soft tissue usually over a bony prominence or related to a medical or other device. The injury can present as intact skin or an open ulcer and may be painful” (“National Pressure Ulcer Advisory Panel (NPUAP) announces a change in terminology from pressure ulcer to pressure injury and updates the stages of pressure injury | The National Pressure Ulcer Advisory Panel - NPUAP," n.d.).

According to the ID Service System in the Southwestern PA region, in 2017, five people had a total of 108 claims for treatment of pressure injuries, and one person, who had eight of these claims, died (the exact cause of death is unknown) (Office of Developmental Programs, 2018). As these statistics are quite alarming, ODP would like to reduce morbidity and mortality related to pressure injuries. One way to do this is to educate caregivers on aspects of maintaining good skin integrity, including ways to relieve pressure on the skin.

## **Consider this scenario:**

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Burt is 72 years old and returned home from a long-term care facility after breaking his hip and receiving rehabilitation. During his stay, he lost weight, and became very weak because he did not like to participate in physical therapy. Before Burt’s hospitalization, he was independently active, however he currently uses a wheelchair. One week after returning home, his evening caregiver was showering him and noticed his tailbone area was red. He thought it was just from Burt sitting in his hard, plastic shower chair. At the day program, his caregivers noticed the red area and thought it was from sitting in his wheelchair most of the day. His caregivers at night saw the red area on his tailbone and attributed it to laying on his back. After a few days, Burt began crying and not sleeping at night. The red area had developed into an open seeping wound and became infected from his loose bowel movements. Oral antibiotics were not effective in treating the bacterial infection and Burt was hospitalized receiving IV antibiotics.

As you can see, the red area that was disregarded by many people snowballed into a larger problem for Burt. Take a minute, reread the scenario, and consider what could have been done to prevent the pain and hospitalization Burt experienced. The definition of proactive from dictionary.com is serving to prepare for, intervene in, or control an expected occurrence or situation, especially a negative or difficult one; anticipatory ("the definition of proactive," n.d.).

Being proactive is another way to maintain skin integrity. For more information about keeping skin healthy and free of pressure injuries, please continue to read on.



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National Pressure Ulcer Advisory Panel (NPUAP) announces a change in terminology from pressure ulcer to pressure injury and updates the stages of pressure injury | The National Pressure Ulcer Advisory Panel - NPUAP. (n.d.). Retrieved from <http://www.npuap.org/national-pressure-ulcer-advisory-panel-npuap-announces-a-change-in-terminology-from-pressure-ulcer-to-pressure-injury-and-updates-the-stages-of-pressure-injury/>

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# Maintaining SKIN INTEGRITY

By: Carrie Perrell, BSN, RN

Skin is the largest organ of the body and is responsible for protecting the body from harmful substances in the environment such as viruses, toxins, fungi and sunrays. Skin regulates the body's temperature through sweating when the body is too warm and creating "goosebumps" when the body is too cold. Skin helps us to feel sensations of temperature, pain and pressure.

Skin can best perform its various important functions when it is unbroken, undamaged and free from irritation. This would be the definition of good skin integrity.

## Components of Maintaining Skin Integrity:

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- **Maintain healthy nutrition** – Encourage a balanced diet incorporating fruits, vegetables, seafood, meat.
- **Protect from the sun** – Avoid the strongest rays found between 10 a.m. and 4 p.m. and wear sunscreen.
- **Keep skin hydrated** – To stay hydrated, eight cups of fluid per day are recommended (May vary if person is on fluid restrictions. Follow recommendation of the physician.)
- **Gently clean with mild soap** – Avoid scrubbing and pat skin dry when done showering/bathing.
- **Limit length and temperature of bath/shower** – Too hot or too long in the water can make skin become dry.
- **Separate skin folds** – It is important to separate and gently clean in between any skin folds.
- **Moisturize** – For people with dry skin a moisturizer may be applied. A physician can suggest an appropriate moisturizer. After bathing/showering, applying lotion when skin is still moist (but not wet) can be most effective.

Now that the basics of maintaining skin integrity have been covered, caregivers must also consider who is at risk for impaired skin integrity. The factors below predispose a person for impaired skin integrity. Interventions to address the risk factors are listed as well.



## Risk Factors:

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- **Age** – The elderly may have skin which is thin, less elastic or dry. (Moisturize.)
- **Decreased sensation** – Those who cannot feel pressure such as a person with nervous system issues may have decreased sensations. (Assure person repositions frequently.)
- **Limited ability to move** – Persons who spend much of the day in bed, a wheelchair or those with paralysis may have limited ability to move. (Reposition and assure wheelchair is padded).
- **Edema (swelling)** – Swelling causes the skin to stretch and become inflexible and irritated. (Observe skin and follow physician orders for addressing edema.)
- **Friction and shear** – Friction happens when a person is pulled rather than lifted and the skin rubs against a surface such as the sheets on a bed. Shear can happen when a person is pulled in bed and the skin sticks to the sheets resulting in bruising or a skin tear. (Use proper positioning interventions and equipment). For additional information: <https://www.ahrq.gov/professionals/systems/hospital/pressureulcertoolkit/putool3.html>
- **Mental health conditions** – Mental health conditions such as depression can cause a person to neglect hygiene, nutrition, physical activity and hydration. (Document, report and seek help for mental health conditions.)
- **History of impaired skin integrity** – Previously impaired skin can be weaker and more easily damaged than skin that has never been damaged. (Know areas of previous impairment and monitor/use care when providing care to those areas.)
- **Photosensitivity** – Certain medications and medical conditions can cause skin to become more sensitive to sunlight. (Be aware of the person's medications/side effects/medical diagnoses.)
- **Intellectual disability** – Persons who have an impaired cognitive ability may require additional support to understand or perform proper care of their skin. (Assist as needed/educate on proper skin care.)
- **Alternative methods of communication** – Some people with intellectual and developmental disabilities use gestures or a combination of words and gestures to communicate. (Be aware of an individual's method of communication).
- **Incontinence** – Skin exposed to moisture and bacteria due to incontinence is at risk for breakdown. (Briefs should be changed as soon as soiled.)
- **Use of adaptive devices** – Use of equipment such as braces or wheelchairs which can rub against and damage the skin. (Make sure devices are in good working order, fit properly and have proper padding where possible.)

Caregivers cannot eliminate the risk factors, but they can take action to prevent skin breakdown due to those risk factors.

## General Suggestions for Preserving Skin Integrity:

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- First be aware of who is at risk for impaired skin integrity.
- Inspect skin during toileting, brief changing, dressing, bathing and repositioning.
- Immediately report areas of concern as soon as they are observed and document as per agency policy.
- Follow components for maintaining skin integrity.
- Consult healthcare professionals for:
  - Breaks in the skin of people who have diabetes or poor circulation
  - Minor cuts, abrasions, or blisters that do not heal
  - Any skin condition causing pain/discomfort
  - Signs of infection
  - Any questions on how to properly care for an individual's skin

Reference:

KEPRO Healthcare Quality Unit (2018, January 24 CPOC Approved) *Skin Care: Maintaining Skin Integrity*



# Connecting Nutritional Status with **SKIN HEALTH**

By: Margie Grieser RN, CDDN

Sound nutrition is vital for healthy skin. A healthy diet provides the nutrients necessary for healthy, pliable skin that is resistant to injury and heals quickly. Without these nutrients, the skin tissue can begin to breakdown.

Tools such as the **Choose Myplate** method, developed and recommended by the US Department of Agriculture (USDA), can be accessed at <https://www.choosemyplate.gov/>. This method helps caregivers to assist the individual in eating healthy by using pictures and videos. The **Choose Myplate** method suggests ways to fill half the plate with fruits and vegetables, leaving a quarter of the plate each for carbohydrates and protein. This method helps to meet the body's daily nutrition requirements, which can help keep skin healthy. Foods recommended for overall good health also promote healthy skin.

A healthy diet helps to promote the skin's natural healing process. For example, an acute skin injury typically heals within six weeks if the proper nutrients are present in the diet. However, for injuries that take longer to heal (called a chronic wound), the care team may consult with a registered dietitian who can suggest foods rich in vitamins and minerals that are helpful to the healing process. These vitamins and minerals can include:

- **Vitamin C** – helps to maintain skin structure and promote the healing process. Found in citrus fruits, berries, tomatoes, apricots and broccoli.
- **Omega 3 fatty acids** – helps to control the red, itchy rashes commonly seen in eczema (Omega-3 Fatty Acids, 2018). Found in salmon, tuna, mackerel, vegetable oils, walnuts, and some green leafy vegetables.
- **Vitamin E** – works as an antioxidant, reducing free radicals that can damage skin cells. Found in vegetable oils, leafy vegetables, fortified cereals, eggs, and nuts. Deficiency is rare, but those with cystic fibrosis or digestive problems can be at an increased risk.
- **Zinc** – promotes the absorption of vitamin E. Found in seafood, meats, eggs, and whole grains such as oatmeal and whole grain breads and pasta.
- **Protein** – contains amino acids that are important to the creation of collagen, which helps to re-enforce skin structure. Found in meat, eggs, nuts and legumes, and soy products.

Maintaining and promoting healthy skin is different from promoting the healing of skin that has already broken down. The above list of vitamins and minerals are usually part of a healthy diet.

Consider the scenario with Burt. If he chooses not to eat a healthy diet, and the pressure injury is not healing as expected, nutritional supplementation may be considered. Follow the provider's policy and procedure regarding dietary supplementation. As with any supplement, it is important to consider the risks as well as the benefits when talking with the physician, registered dietitian and the individual with intellectual and developmental disabilities.

Several conditions may impair nutrient absorption for an individual. Gastro-esophageal reflux disease and constipation may increase one's risk for prolonged wound healing or pressure injuries by inhibiting nutrient absorption. Dysphagia (problems with swallowing) can lead to weight loss and possible malnutrition. These conditions, or any digestive condition, can delay wound healing. Inhibited nutrition, combined with a chronic skin injury, contributes to decreased functionality and diminished quality of life. Decreased functionality may then lead to a lack of oxygen supply in the blood, further delaying the skin's healing process.

Consider that 87% of Americans do not include enough vegetables in their diet and 75% of Americans do not include enough fruit (*2015-2020 Edition of the Dietary Guidelines for Healthy Americans*). Poor nutritional status can lead to delayed wound healing no matter the cause of the wound. The healing process of the skin can be compromised even further if a pressure injury is not healing correctly and an infection sets into the area of injury. A skin injury combined with infection delays the healing process and might lead to more health issues.

Caregivers can use the following as resources for education about nutrition:

- <https://www.brainpop.com/games/sortifynutrition/> features nutritional games such as matching proteins with proteins and fruits with fruits, etc.
- <http://www.pbs.org/parents/food-and-fitness/eat-smart/encourage-kids-to-eat-healthy-food/>
- <http://www.pbs.org/parents/food-and-fitness/eat-smart/healthy-food-choices-anytime/>

These resources offer simplified ways to help consider the impact of nutrition on an individual's health.

Consider the scenario presented during the introduction to this newsletter. Burt is experiencing unintentional weight loss and pressure injuries, which may indicate inadequate nutrition. Encouraging Burt to eat well-rounded meals is a good first step; one way to do this is to eat healthy meals with him. If his pressure injury does not heal within six weeks, the care team may consult with a registered dietitian who can suggest foods with nutrients essential for healthy skin, as well as supplementation if needed. Incorporating a healthy diet into Burt's plan can encourage better long-term skin health once the injury has healed.

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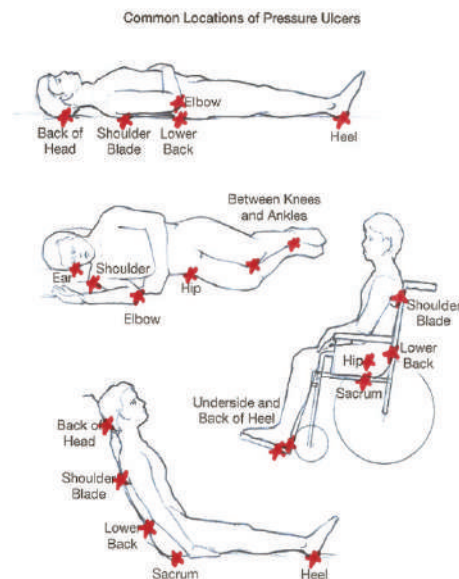
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# Pressure INJURIES

By: Carrie Perrell, BSN, RN

A wound caused by unrelieved pressure on an area of the body is called a pressure injury. This type of wound may also be referred to as a “decubitus ulcer, bedsore, pressure sore, pressure ulcer, decubiti.” A pressure injury results when there is a lack of blood flow to the area due to pressure on that area over an extended period of time. Blood flow is necessary to bring nutrients and oxygen to the cells and tissues. When blood flow is cut off for too long (due to pressure) the cells/tissue begin to die and decay. This can happen rather quickly. In fact, a pressure injury may develop in as little as two hours.



A pressure injury may occur anywhere on the body, however there are areas where a person may be more prone to develop a pressure ulcer. See the chart at the left.

***The best care for a pressure injury is to prevent one from occurring in the first place.*** Identify who is at risk for developing pressure injuries or skin breakdown of any type and then institute practices to prevent injuries to the skin.

**Consider excerpts from the scenario in the newsletter introduction:**

“Burt is 72 years old and returned home from a long-term care facility after breaking his hip....during his stay he lost weight and became very weak because he did not like to participate in physical therapy.....he was independently active, however, he now uses a wheelchair all day.....his tailbone area was red.....Burt began crying and not sleeping at night.....he has loose bowel movements.”



The following are risk factors for developing a pressure injury with corresponding conditions, (where applicable) to the scenario in the newsletter introduction:

### Risk Factors:

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- **Lack of movement** – Burt is no longer able to walk and uses a wheelchair.
- **Inability to reposition** – Burt is weak/Burt uses a wheelchair.
- **Inability to verbally communicate** – Burt communicates that he has pain by crying.
- **Decline in muscle function** and muscle rigidity leading to uncontrolled movement
- **Numbness** and tingling
- **Poor nutrition** – Burt has lost weight
- **Incontinence** – Burt has loose bowel movements

Burt had multiple risk factors for developing a pressure injury. Think of the individuals currently in your care. Do they have any of these risk factors?

### Treatment:

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- **Contact the physician for a treatment plan** – Follow a treatment plan as prescribed by the physician.
- **Keep area free of pressure** – Make sure Burt is assisted in changing positions on a schedule as recommended by the physician.
- **Keep wound clean** – Follow specific physician instructions. Wound care may be carried out by a wound care nurse if ordered.
- **Nutrition/hydration** – Burt has lost weight. Adequate nutrition and hydration is necessary for wound healing. The physician may suggest a consultation with a nutritionist to ensure Burt is receiving adequate caloric intake and hydration.
- **Exercise** – Burt has been resistant to engaging in physical therapy. Activity can increase circulation and bring nutrients to the wound. Caregivers may be taught by a physical therapist to perform passive range of motion exercises to assist those who cannot move on their own. Follow all recommendations from the physical therapist.
- **Watch for signs of an infection** – Caregivers can ask the physician or wound care nurse about what to look for as far as signs of an infection. Any signs should be documented and promptly reported as per agency policy.
- **Good skin care** – General principles of good skin care include daily inspections and keeping skin clean and free of moisture, but not overly dry.

With proper care a pressure injury can heal. Many of the actions which can treat a pressure injury could also help prevent one from forming in the first place.

Reference:

KEPRO Health Care Quality Unit, *Pressure Injuries*, CPOC approved (2018, April 5).



# Pressure Injuries CAUSED BY MEDICAL EQUIPMENT

By: Cheryl Pursley, RN, Clinical Educator

People with intellectual and developmental disabilities may have medical conditions that require the use of medical equipment. Medical equipment used to assist in the health and wellbeing of an individual has the potential to cause injury to the skin. Any type of injury to the skin may lead to pain and increased risk of infection. An article in the American Journal of Nursing states “Consider all patients with a medical device to be at risk for a medical device-related pressure injury” (Delmore & Ayello, 2017).

## **Medical equipment may include:**

- Nasogastric tubes
- Feeding tubes
- Foley catheters/condom catheters
- Tracheostomy tubes – collars/straps
- Oxygen delivery systems – masks/nasal cannula/CPAP masks
- Ostomy equipment
- Restraints
- Bedpans
- Abdominal binders
- Intravenous (IV) systems – PICC lines/Central lines
- Anti-embolic stockings
- Hearing aids
- Orthopedic equipment – casts/cervical collars/back braces/extremity braces and splints
- Eye glasses
- Diabetic shoes

(Delmore & Ayello, 2017, p. 36-45)

While the use of medical equipment puts a person at risk for an injury to the skin, some individuals have an increased risk. Those who are at increased risk for a skin injury include persons who have:

- Impaired sensation
- Poor circulation
- Poor nutritional status
- Swelling
- Impaired communication

("Skin Health: Prevention and Treatment of Skin Breakdown (pressure ulcer, bed sore)," n.d.)

Factors that contribute to pressure injuries from medical equipment are:

- The rigidity and elasticity of the equipment
- Inappropriate size
- Poor fit or positioning
- Difficulty in securing the device to the body
- Overlooking the position of the device relative to skin/tissue surfaces
- Skin covered and not able to be examined

("NDNQIA® | Pressure Injury Training v. 6.0 | Module 1," n.d.)

The goal for individuals who use medical equipment is to keep the skin intact and free of injury. This is referred to as having good skin integrity. Good skin integrity means that the skin has no signs of irritation, bruising, swelling, bleeding or infection.

In order to assure the skin is in good shape, a best practice is to observe the skin daily and at every available opportunity following the agency's policies. Agencies who do not have policies surrounding this may wish to develop a policy and procedure related to the caregiver's role in assuring a person's skin is intact. Opportunities to observe the skin include during personal care such as toileting, showering and positioning. The skin under and around any medical equipment needs to be examined. Problems observed by the caregiver may be documented and reported so that they can be addressed ("Pressure Ulcers | Agency for Healthcare Research & Quality," n.d.). The agency may want to utilize a Body Check Flow Sheet to indicate where on the body the skin is impaired and the type and size of the injury. Caregivers may want to check the area and document on the flow sheet to monitor whether the area is improving or worsening. **An example of a Body Flow Check Sheet is on the next page.**

Any skin concerns found should be documented and immediately reported to the person's physician.

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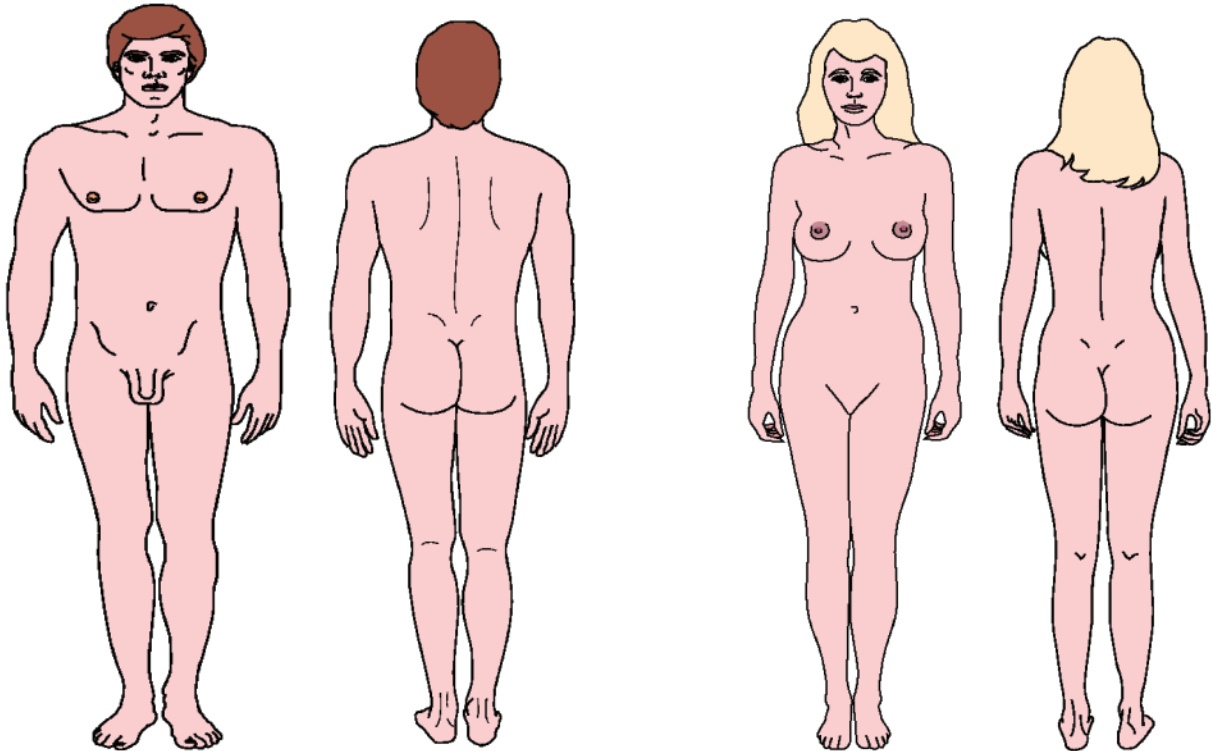
## Body Check Flow Sheet

Name: \_\_\_\_\_

Date and Time: \_\_\_\_\_

Place the appropriate symbol on the picture where the mark is located on the individual:

Bruise ✓    Open Wound ○    Redness +



Place your initials in the box that describes the skin condition/describe size in inches.

BRUISING	OPEN WOUNDS
Yellow	Dry
Green	Scabbed over
Purple	Seeping
Fading	Bleeding
Size of bruising-	Size of wound-

Red Area: Size \_\_\_\_\_ From medical device? Yes ☐ No ☐ If yes, what device \_\_\_\_\_

Write a short description of the skin condition:

\_\_\_\_\_

Staff Name \_\_\_\_\_ Date \_\_\_\_\_



# Skin Integrity and PSYCHIATRIC DISORDERS

By: Brian J. Leech, MS, Clinical Behavioral Educator

Usually, we don't think about skin being impacted when we talk about the effects of mental illness on an individual. Our focus typically lies on the behaviors and symptoms of the mental illness itself. However, skin health can be affected by mental illness, and in some cases skin conditions themselves can contribute to mental health issues (such as depression and anxiety) (Horne, 2015).

In the case of Burt, his hip injury and subsequent reduction in activity could have caused him to feel depressed and/or anxious – which in turn could have influenced his desire and ability to maintain hygiene or to attempt to be active in other ways. As was seen in the scenario, being confined to a wheelchair and experiencing limited mobility may have contributed to the pressure sore that Burt developed. The other effects of his limited mobility, though, may have been mental and emotional. If Burt believes that he is unable to do what he once enjoyed, or to even move around easily, he could become susceptible to developing depression based on the negative perception he has of this experience.

The following is a list of some mental health conditions and how they might impact a person's skin integrity:

**Autism Spectrum Disorders** – Individuals with ASD may experience too much or too little sensitivity when coming into contact with certain stimuli (i.e. a shirt that feels overly itchy, or a desire for very hot water in the bath). These issues with sensitivity can lead to skin injury and breakdown if not adequately addressed by the person's medical and caregiving team (APA, 2013).

**Depression** – A lack of hygiene in depression may be related to low energy levels and low motivation – this can impact skin by allowing dirt and debris to remain on the skin. Pressure sores can arise from reduced physical activity, while self-injurious behaviors or suicide attempts (such as cutting oneself) can open up wounds (APA, 2013).

**Obsessive-Compulsive Disorders** – Some individuals find relief from recurrent thoughts and feelings through skin picking or self-injury (APA, 2013). Specific conditions, such as trichotillomania (hair pulling disorder) and excoriation (skin picking disorder) involve direct damage to the skin as a symptom. Individuals with hair pulling disorder can cause skin damage through pulling out hairs, which can rip and tear skin and open one up to infection. The same goes for skin picking, which can result in open wounds that never fully heal (APA, 2013).

**Schizophrenia (and/or other psychotic disorders)** – People with schizophrenia and psychotic disorders can experience hallucinations that involve the sensation of one’s skin ‘crawling’ or itching, as well as delusions that something has been implanted under the skin, that the skin is diseased, or is compromised. This can lead to an individual scratching, picking, tearing, and cutting the skin to alleviate the stress of his or her symptoms (APA, 2013).

**Anxiety Disorders** – Individuals who have anxiety disorders may engage in behaviors that are damaging to the skin in order to reduce their feelings of worry or distract themselves. Examples of this may include biting one’s nails, picking at or rubbing one’s skin, or self-injurious behaviors (hitting or pinching oneself, self-cutting, biting oneself) (APA, 2013).

Caregivers and medical team members must be observant and vigilant in caring for an individual with mental illness, but some considerations may be overlooked when dealing with challenging behaviors or symptoms. Regular checks of an individual’s skin integrity can be an important aspect in maintaining the health and safety of an individual.



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