For an ostomy pouching system to adhere properly, the skin around the stoma must be dry and intact. Otherwise, peristomal skin problems and skin breakdown around the stoma may occur. In fact, these problems are the most common complications of surgical stomas. They can worsen the patient’s pain and discomfort, diminish quality of life, delay rehabilitation, increase use of ostomy supplies, and raise healthcare costs.

Peristomal skin problems also perpetuate a vicious cycle in ostomy patients: They impair adhesion of the pouching system, which in turn exacerbates the skin problem. That’s why maintaining peristomal skin integrity and addressing skin problems promptly are so crucial.

This article focuses on three peristomal skin problems common in both inpatients and home healthcare patients—allergic contact dermatitis, irritant dermatitis, and fungal infection. It describes how to perform routine peristomal skin care; identifies the causes, clinical features, and prevention of these problems; and discusses appropriate interventions.

**Types of skin barriers**

Skin barriers (the wafers that adhere to the skin where the ostomy pouch attaches) come in two common types—two-piece and once-piece systems.

The barrier shown at top right is a two-piece system; the ostomy pouch attaches to the barrier. To attach the pouch, snap it on just as you’d snap on the lid of a food storage container.

Two-piece skin barrier

In the one-piece barrier pouching system shown below, the ostomy pouch and barrier are integrated as a single unit.

One-piece skin barrier with adhesive barrier on side and front

**Removing the skin barrier and locating leakages**

The proper way to remove the skin barrier is to gently peel it while pressing down on or supporting the skin. To locate a leak, examine the removed skin barrier by as-
sessing the part that adhered to the skin.

**Cleaning around the ostomy**

To clean around the ostomy, use warm water. Avoid routine use of soap or baby wipes; both may leave residue that can cause dermatitis or impede barrier adhesion. If you must use soap, avoid soap that contains oils and be sure to rinse the skin thoroughly. If the patient insists on using products other than water for cleaning, advise him or her to use skin wipes specially made for peristomal skin care.

If skin around the ostomy is hairy, shaving helps prevent folliculitis and painful skin-barrier removal. An electric shaver is preferable to a safety razor. But if your patient wants to use a safety razor, teach him or her to shave away from the stoma and use either a wet lubricant (mild soap) or a dry lubricant (for example, shaving cream or an ostomy barrier powder, which must be rinsed well after shaving). Advise the patient to rinse and dry the skin after shaving. Some patients prefer laser hair removal, although this can be expensive.

**Normal peristomal skin**

Ideally, skin around the ostomy should look like that in the image below, with no breakdown, redness, or lesions.

**Allergic contact dermatitis**

Allergic contact dermatitis is an immunologic response to an irritant or allergen. This condition may be hard to prevent unless the patient has a known history of allergy to the offending item. Unfortunately, many patients don’t find out about the allergy until they use the product.

On assessment, you may note papules and vesicles, along with redness, discoloration on darker skin, crusting, oozing, or dryness. (See the image below.) The patient may complain of burning or itching. The rash may match or mirror the area of contact with the allergen.

To manage allergic dermatitis, follow these guidelines:

- Remove the irritant or allergen. In some cases, the patient may have to switch to a different brand of ostomy products. Skin-barrier adhesives may vary by brand. However, the patient might want to try another type of skin barrier from the same brand because it may have a different adhesive.
- Eliminate unnecessary ostomy products. Some manufacturers recommend against using skin barrier films or skin sealants, so be sure to check manufacturers’ recommendations for products you could eliminate.
- If the patient’s skin is denuded, consider using the crusting method, in which ostomy powder and skin prep are combined to form a crust on the affected peristomal skin. Ideally, use a no-sting skin prep instead of a regular one, which can cause pain from the chemical content. For details on the crusting method, click here. To watch a video click here. Caution: Use the crusting method only if the patient has a peristomal skin problem—not if the skin is intact.
• Consider a topical or systemic steroid. But be aware that steroid creams or ointments can impede adhesion of the skin barrier.

• For help in addressing a patient’s peristomal skin problem, consult a nurse who is certified in ostomy care in your community or in the agency or facility where you work.

• For severe or recalcitrant allergic contact dermatitis, arrange for a dermatology consult.

• Inform the patient and caregiver that allergic dermatitis usually presents as skin irritation that mirrors the size and shape of the skin barrier or parts of it (such as the tape). If such irritation occurs, advise them to contact the ostomy nurse or product manufacturer, who may suggest they try a different brand or type of skin barrier. (For resources that can help you manage this and other problems discussed in this article, see Where to get help.)

Irritant dermatitis
Irritant dermatitis (sometimes called contact irritant dermatitis) refers to skin damage caused by exposure to fecal or urinary drainage or chemical preparations. In ostomy patients, it usually results from enzymatic drainage. Other common causes include exposure to soaps, solvents, and adhesives. Also, a skin barrier that’s cut too large can expose a relatively large area of skin to stool or urine. To improve barrier sealing, you may need to modify the pouching system or add accessories.

As with allergic dermatitis, irritant dermatitis may cause pruritus and present as papules and vesicles, redness, dark discoloration, or crusting, oozing, or dryness, along with well-defined erythema, edema, or epidermal loss. (See the image at right.)

To manage irritant dermatitis:
• Use the correct size opening for the pouching system.

• Modify the pouching system by using an ostomy belt or a convex skin barri-
er instead of a flat one. (See the images below.)

- Try using a convex or flat barrier ring.
- Use the crusting method to create a dry surface for pouch adhesion.
- Use a cyanoacrylate-based product as a protective layer over the skin.
- Educate the patient and caregiver about the interventions described above.
- For persistent cases of irritant dermatitis, arrange for a dermatology consult.

**Candidiasis infection**

Candidiasis (a fungal infection sometimes called moniliasis or yeast rash) stems from body perspiration, denuded skin, or a leaking pouch system. Predisposing factors include diabetes mellitus, immunosuppression, and use of oral contraceptives, steroids, or antibiotics.

Candidiasis may present as discoloration—specifically, redness or darker pigmentation. Papules, pustules, and pruritus may occur. Satellite lesions may show maceration. (See the image below.)

The following actions can help prevent fungal skin infection:
- Eliminate moisture by using a properly fitting pouching system.
- Use a pouch cover or a pouch with a cloth backing.
- Dry the pouching system well after swimming, bathing, showering, or contact with water or steam.
- If the patient has an established pattern of fungal infections—for example, if he or she has a history of developing a fungal rash during antibiotic therapy—prophylactic treatment (as with oral diflucan) may be warranted.

To manage candidiasis, use the crusting method with antifungal powder and skin prep. The powder treats candidiasis and the skin prep helps seal in the powder. If more than one body part is involved, the patient may need systemic treatment. In diabetic patients, blood glucose control can help prevent this infection.

**Improving patient outcomes**

Besides causing pain and discomfort, peristomal skin problems also may impede pouch adherence, which can affect the patient’s adjustment to living with an osto-
my. In addition, constant leakage from a nonadherent skin barrier may lead to isolation and other psychological problems. Teaching ostomy patients about proper peristomal skin care and how to address peristomal skin problems can greatly improve their outcomes.

*Images of viable budded stoma, allergic dermatitis, denuded peristomal skin, and candidiasis skin infection with satellite lesions courtesy of Wound, Ostomy and Continence Nurses Society. (N.D.) WOCN Image Library. [Image database]. www.wocn.org/page/ImageLibrary

**Online Resource**
B. https://www.youtube.com/watch?v=v83hWZDMpgE

Armi S. Earlam is the lead certified wound, ostomy, and continence nurse at Lutheran Medical Center in Wheat Ridge, Colorado. She recently graduated from the Doctor of Nursing Practice program at Regis University in Denver, Colorado. Ms. Earlam wishes to acknowledge the assistance of Bonnie Sue Rolstad and Debra Netsch for information contained in this article.

**Selected references**


Emory University. *Ostomy and Continent Diversion Module*. Atlanta, GA: Emory University; 2012.


