# Peristomal Skin and Tape: Stick to the Facts


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## Overview

A thorough assessment is required when choosing a pouching system for a patient. The skin barrier is the most important part of the system as it protects the skin from stomal effluent and seals the pouch to the skin for predictable wear time. Choosing a barrier with or without a tape border is just one decision the clinician must make when determining which barrier is best suited for the patient.

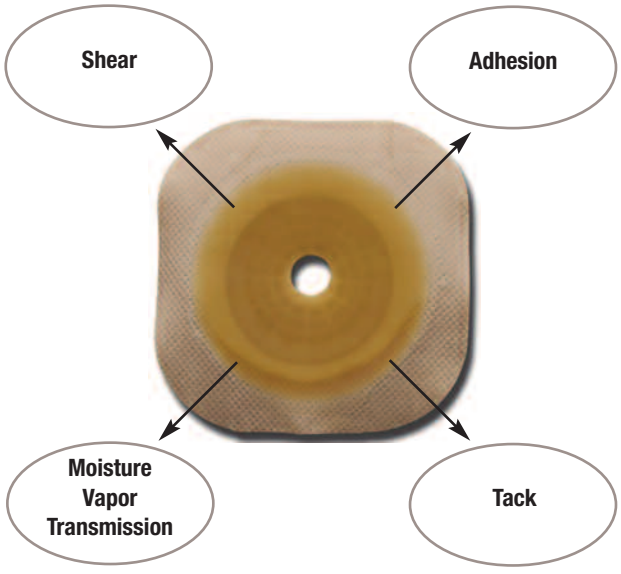
## Statement of Problem

Tape is extensively used in medical care for a variety of reasons. The use of a tape bordered barrier in ostomy care is very well documented, and yet some have raised the issue of potential skin reactions to a tape border and questioned the need for such an additional feature. This handout will examine the use of tape in ostomy care including tape properties, patient preferences, and clinical case studies to support the WOC/ET Nurse when choosing the right barrier for a patient.

## Tape Properties

All tape used on ostomy skin barriers are approved for use for skin contact (per ISO 10093: A series of standards for evaluating the biocompatibility of a medical device). There are four properties that industry addresses with the addition of tape to an ostomy barrier.

1. **Adhesion:** Adhesion is the force required to peel the tape off. It should be high enough to help hold the pouch securely in place and form a tight seal to the skin, but not so high as to cause pain or skin stripping on removal.
2. **Tack:** Tack is the ability to form an immediate bond with the skin with light pressure. The tack of the tape holds it in place long enough for the adhesive to flow into the microstructure of the skin and form a firm bond.
3. **Shear:** Shear is the resistance of the tape from sliding on the skin due to the weight of a full pouch. It allows the tape to follow skin contours and skin movement without creating tension blisters or shearing skin blisters.
4. **Moisture Vapor Transmission:** Moisture Vapor Transmission is a measure of the passage of water vapor through the tape. This will allow the skin to “breathe” through the tape and avoid maceration.



## Patient Preference: Online Survey

Living with an ostomy is very personal, and having a variety of product options to meet individualized needs is extremely important. There are many choices to consider when choosing a pouching system, including the use of a tape bordered or tapeless barrier. Why would one choose a tape bordered ostomy barrier? An online survey was conducted asking 329 persons with an ostomy the following question:

***"Why do you use a tape bordered barrier?"***

With the convenience of the online survey, the survey response rate was very good at 21%. The responses were summarized as comment "themes" (Table 1) in order of reporting frequency. A common theme was that of ***security***. Notable customer responses are represented in Table 2.

**Table 1**
**Survey Theme Results**


**Table 2**
**Customer Responses**

*"I operate under the assumption that the tape gives me extra protection against water during bathing, etc., and that it is just a little more secure."*

*"I have found that I feel more secure with the tape edge, and when I've tried ones without that border I have less wear time."*

*"The tape border helps hold the pouch on your body much better than a borderless pouch."*

*"I use a non-taped barrier, but I tape the edges anyway for security reasons — that's all."*

*"I use the tape bordered product because it stays on better. Those products without tape, whether it's a "sticky" plastic or something else, don't stay on when I sweat even the slightest. And once they are loose, they will leak."*

*"I add my own tape (picture framing I think they call it), and I've found it easily adds 2-3 days extra wear time for my one-piece ileostomy pouching system."*

## Survey Summary

Responses indicate that security is of utmost importance when choosing and wearing an ostomy barrier. Approximately 59% of those who responded use a tape bordered barrier for the security it provides.

The survey also revealed that many people will "picture frame" their barrier with tape to enhance security, prevent edge rolling and lifting, and increase wear time. To note, 35% of those individuals who did not have tape as an integral part of their barrier added tape for security purposes. The addition of tape requires increased product expense, and increased time to change the barrier. It also adds a larger barrier "footprint" on the abdomen, making the pouching system less discreet (Figure 1).

The majority of people with an ostomy prefer a tape bordered barrier. However, it is important that manufacturers provide options to meet unique individualized needs.

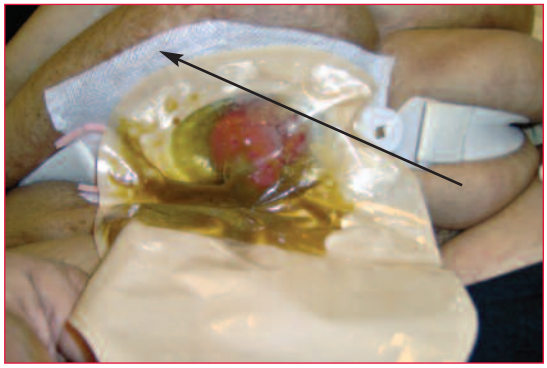


**Figure 1**

## Peristomal Skin Responses

Although there may be a negative peristomal skin reaction noted under the tape of an ostomy barrier, this can often be misdiagnosed. Data shows there is a very low level of allergy to ostomy adhesives. True allergies represent 0.6% of all skin problems. What may be identified as skin sensitivity may actually be due to skin tension, skin stripping, misapplication, products used under the tape, or frequent removal. This highlights the importance of a clinical assessment when making a differential diagnosis.

## Case Study 1

The patient notified the WOC/ET Nurse of skin reaction (Photo 1) that was diagnosed by a home care nurse as an allergic reaction.

- Assessment:
  - Presented with a large parastomal hernia
  - Changes in abdominal contours with movement, secondary to the hernia
  - Skin irritation related to skin shearing from the barrier pulling on the skin
- Considerations:
  - Use of larger "footprint" tape barrier to cover a broader surface area on the abdomen, to help prevent skin shearing and stripping
  - Use of a tapeless barrier

**Case 1** Photo 1

## Case Study 2

The patient presents with tape edge dermatitis (Photo 1). Patch testing indicated an "angry back" (Photo 2), where covered areas are red when the tape is removed but clears within an hour.

- Assessment:
  - Skin reaction is not under all areas covered by tape
  - Confirmed this is not a tape allergy
- Considerations:
  - Other potential causes include skin stripping with improper removal of the barrier, or frequent barrier removal
  - Proper education required to prevent further skin stripping

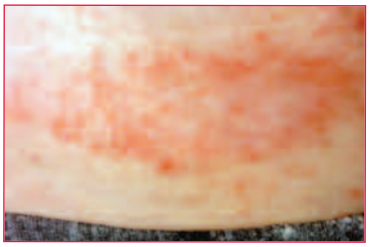
**Case 2** Photo 1

**Case 2** Photo 2

## Case Study 3

The patient presents with irritant dermatitis related to pouch seal failure and frequent barrier changes (Photo 1).

- Assessment:
  - Diagnosed with psoriasiform irritant dermatitis by a dermatologist (Photo 2)
  - Allergy diagnosis ruled out
- Considerations:
  - Reassessment of appropriate pouching system and accessories required to achieve the best fit (Photo 3)



**Case 3** Photo 1

**Case 3** Photo 2

**Case 3** Photo 3

## Conclusion

Clinicians and patients have documented their experience with tape in ostomy care. Survey results show that most people who wear an ostomy system prefer a tape bordered barrier. Tape bordered barriers provide them with the security they require to feel confident with their system. When tapeless barriers are used, they are often reinforced with tape adding extra time and cost to the patient.

When skin irritation is reported under tape, it is often misdiagnosed; true allergies represent less than 1% of all skin problems. A thorough WOC/ET Nurse assessment may find that negative skin reactions are often attributable to other clinical causes.

Although most people prefer a tape bordered barrier, it is important to have options when required to meet individual clinical needs.

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