

## Introduction

A stoma is defined as an artificial opening made into a hollow organ, especially one on the surface of the body leading to the gut or trachea (although tracheostomy is outside the scope of this Made Easy); in this case, stomas are, therefore, artificial outlets in the abdomen created to remove urine or faeces from a patient's body when the bladder or bowel cannot perform their excretion function (Lacey, 2022). The skin around stomas requires specific care to prevent complications and reduce the burden on both patient and healthcare systems. With 21,000 new stoma cases in the UK each year (Rolls et al, 2023), preventing stoma-related skin complications is a far better strategy than aiming to 'cure' problems as they arise. This Made Easy aims to provide an overview of the pathophysiology of stoma skin care, types of stoma-related skin complications and methods to manage them.

## What are stomas?

Stoma is a Greek-origin word, meaning 'mouth' or 'opening'; in clinical lexicon, a 'stoma' refers to a surgically made outlet in the abdomen's outer skin that is used as an opening to let urine or faeces out when a person's own excretory organs cannot perform their normal physiological function (Burch, 2022).

Stomas may be needed due to several diseases/conditions (Lacey, 2022):

- Bowel/bladder cancer
- Irritable bowel disease
- Crohn's disease
- Ulcerative colitis
- Diverticulitis
- Any other obstruction of the bowel or bladder.

People of any age may require a stoma, and they can have a significant and long-ranging impact on every aspect of life, affecting daily activities, body image and mental health (Nichols, 2018).

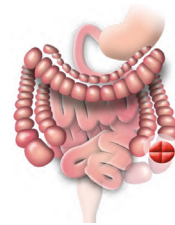

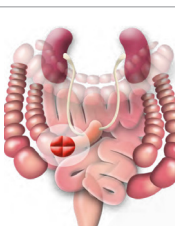
## Prevalence and types of stomas

In the UK, approximately one person in every 500 is living with a stoma (Colostomy UK, 2022), with around 21,000 people receiving a new stoma in the UK each year (Rolls et al, 2023). Maglio et al (2021) have estimated that, just a month after receiving a stoma, approximately 63% of people develop at least one stomal or peristomal complication. **Table 1** lists the three main types of stomas.

People living with any type of stoma are likely to have reduced quality of life and may experience accidental stoma leakage, as

well as potential embarrassment about leakage or odours (Rolls et al, 2020). Stoma leakage may also irritate the surrounding skin, causing irritant contact dermatitis, which is a major risk for additional peristomal skin complications (Rolls et al, 2020).

**Table 1. Major stoma types**

Type	Picture	Why is it done?
Colostomy – stoma in large intestine		A type of temporary or permanent stoma used to divert and excrete stool from the large intestine when the patient cannot pass stool via anus (NHS, 2020)
Ileostomy – stoma in small intestine		This type of stoma is created at the end of the small intestine when the large intestine is temporarily or permanently unusable or has been removed (NHS, 2023)
Urostomy – stoma to pass urine when bladder function is lost		This type of stoma is created to excrete urine from a patient's body when their bladder cannot perform this function/has been removed (e.g. due to bladder cancer; NHS, 2021)
Colostomy is the most common and urostomy is the least common type of stoma in the UK patient population (Burch, 2017).		

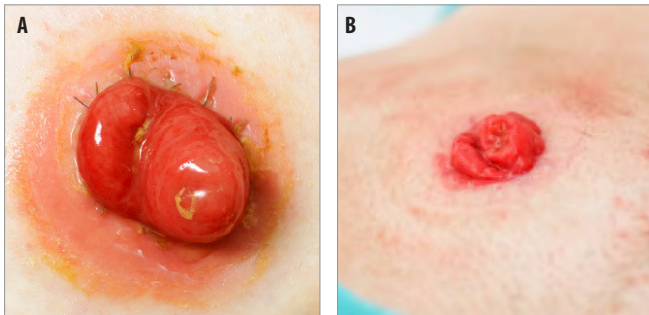
## Peristomal skin complications

If the skin around a stoma gets irritated or damaged, two main types of skin complications may occur [**Figure 1**]:

1. Peristomal moisture-associated skin damage (PMASD) occurs if there is leakage of urine or faeces from the stoma, exposing the skin to irritants: the skin integrity around the stoma is compromised, leading to maceration and loss of function (Parnham et al, 2020). This is a chemical injury that can even erode the mucocutaneous junction of the stoma (Burch et al, 2021).
2. Peristomal medical-adhesive related skin injury (PMARSI) is a mechanical injury and can occur when removing stoma pouches if care is not taken to keep the epidermal layer of

# Stoma Care

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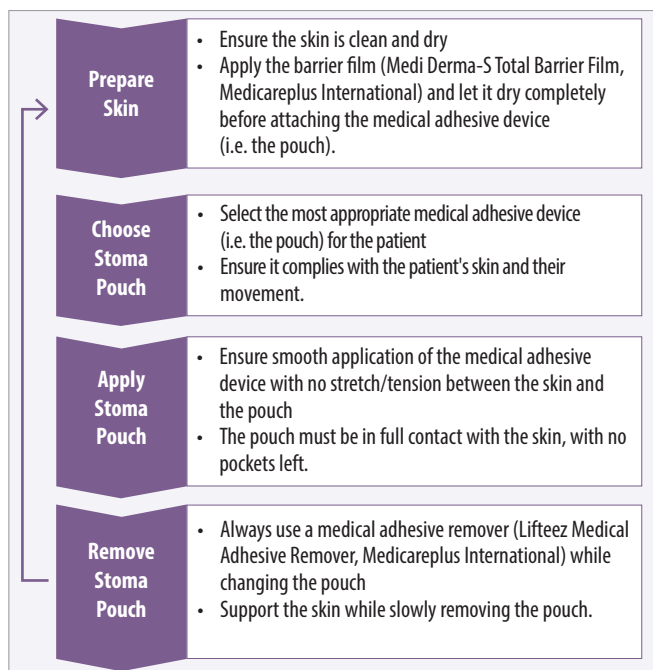
**Figure 1. The two major peristomal skin complications: a) Peristomal moisture-associated skin damage (PMASD); b) Peristomal medical-adhesive related skin injury (PMARSI)**

skin intact: this can happen if peristomal skin is not strong (e.g. PMASD) or if pouch removal technique is not appropriate (Le Blanc, 2019). Studies show that this complication is common but under-reported (Le Blanc et al, 2013; Stelton, 2019).

Due to their impact, PMASD and PMARSI require multi-step prevention and management approaches that should be tailored and promptly implemented to ensure optimal outcome for the patient.

## Managing peristomal skin complications

Progression of PMASD and PMARSI can be reduced by following the steps outlined in **Figure 2** (Hadfield et al, 2019; Kelly-O'Flynn et al, 2020; Swift et al, 2021).



**Figure 2. Steps to manage peristomal skin complications**

It is crucial to assess the patient's skin before applying the stoma pouch and when removing it. As a rule of thumb, peristomal skin should appear the same as the abdominal skin (Stelton, 2019); it should not look discoloured in any way and the patient's normal skin tone should always be compared during this assessment to ensure no indicators of skin damage are missed. It is also important to assess the patient holistically, including noting the impact of stoma on their lifestyle, any comorbidities/risk factors, and the placement and type of stoma.

**Table 2** lists tips for practice when assessing a patient for PMASD and PMARSI.

**Table 2. Assessment tips for PMASD and PMARSI detection (adapted from Wounds UK, 2021)**

Skin damage	Possible presentation	Tips for practice
PMASD	Peristomal skin colour may change, look for: erythema, darkening, lightening or a blue/purple hue	<ul style="list-style-type: none"> <li>Assess the skin thoroughly and regularly</li> <li>Check the skin for changes in colour, temperature and texture (Cole and Waller, 2023)</li> <li>Ensure that barrier products and medical adhesive removers are always used for patients, to maintain healthy skin</li> </ul>
PMARSI	Erythema may be present; consider pain around stoma region an indicator	<ul style="list-style-type: none"> <li>Ensure skin integrity is maintained by using a medical adhesive remover, when removing stoma pouches</li> <li>Assess skin dryness and provide peristomal skin support when removing stoma pouches</li> <li>Consider skin tone and tailor colour assessment to patients with dark or light skin</li> </ul>

**Always consider skin tone** to ensure skin assessment is tailored to the individual patient and to avoid skin tone bias (Wounds UK, 2021); potential inequity in peristomal skin care exists and people with dark skin tones often experience more severe skin injuries before the damage is diagnosed (Gunowa et al, 2020).

## The cost of peristomal skin complications to healthcare systems

Pietzsch and Geislet et al (2019) estimate that, in the UK, colostomy care (the most common form of stoma in the UK population) costs approximately £8,167 per person over their lifetime (excluding the cost of adverse events). Overall, people with stomas also require more support from health services, which further increases their healthcare expense compared to the general population (Mthombeni et al, 2023).

Most patient visits to stoma care nurses happen due to peristomal skin complications but there is a tendency in patients to not seek care earlier – potentially due to embarrassment or failure to recognise an emerging skin problem early – this increases the burden on both nurses and healthcare systems as the patient presents when the peristomal skin has already deteriorated significantly (Rolls et al, 2023). It can take several weeks and substantial nursing time to manage a single case of PMARSI (Kelly-O' Flynn et al, 2020). Therefore, effectively managing peristomal skin complications and reducing stoma-related healthcare costs can have significant benefits for clinicians and the NHS.

## A two-pronged approach to managing peristomal skin complications

To prevent PMASD progression, it is important to create a barrier between any potential irritants/effluents from stomas reaching the peristomal skin; similarly, for PMARSI, it is essential to remove the stoma pouches with care as they are attached via strong adhesives to potentially fragile skin.





For mild PMASD, a two-pronged approach [Figure 3] is recommended, where a barrier film is used, as prescribed by a

healthcare professional (HCP), to protect the peristomal skin from irritants and a medical adhesive remover is used to gently remove the stoma device. Copson and Freitas (2021) reported that, in a study of 101 patients who used a barrier film (Medi Derma-S Total Barrier Film, Medicareplus International), 63% of all respondents reported an improvement in their skin while 33% experienced no change. Kelly-O'Flynn et al (2020) showed that using a medical adhesive remover (Lifteez Medical Adhesive Remover, Medicareplus International) not only helps in reducing pain during dressing or pouch removal, but it also reduces the risk of skin damage and MARSI. It is important that people with stoma are recommended a barrier film as prescribed by a HCP and educated about its appropriate use for mild/moderate/severe skin complications.

Therefore, using a barrier film and a medical adhesive remover can form a routine stoma care regimen that may not only help manage mild/moderate peristomal skin complications, but also provide significant long-term cost benefits to the NHS.

## Saving stoma care costs for the NHS

In addition to overall cost-saving benefits, the Medicareplus stoma skincare product range also provides a cost-effective

	<p><b>1. Remove</b></p> <ul style="list-style-type: none"> <li>Gently lift the edge of the appliance</li> <li>Spray or wipe using <b>Lifteez Medical Adhesive Remover</b> underneath the edge whilst gradually and gently removing the appliance.</li> </ul>		<p><b>3. Protect</b></p> <ul style="list-style-type: none"> <li>Apply <b>Medi Derma-S Total Barrier Film</b> to protect the skin underneath the replacement appliance.</li> </ul>
	<p><b>2. Clean</b></p> <ul style="list-style-type: none"> <li>Once the appliance has been removed, it is important to remove any adhesive residue</li> <li>Use a <b>Lifteez Wipe</b> or spray <b>Lifteez Aerosol</b> on a gauze swab and gently wipe any residue off the skin</li> <li>Gently clean and dry around the peristomal site in accordance with clinical guidance</li> <li><b>Lifteez</b> dries in seconds and does not compromise the adhesion of the replacement pouch.</li> </ul>		<p><b>4. Replace</b></p> <ul style="list-style-type: none"> <li>Once the <b>Medi Derma-S Total Barrier Film</b> is fully dry, apply the replacement pouch as normal. When using the <b>Medi Derma-S Total Barrier Film</b> applicator or wipe, allow <b>5-10 seconds</b> to fully dry, holding open any skin folds to ensure complete drying. If using the <b>Medi Derma-S Total Barrier Film</b> pump spray or aerosol, allow up to <b>30 seconds</b> to fully dry, again holding open any skin folds for complete drying.</li> </ul>

**Figure 3.** A two-pronged approach for managing peristomal skin complications. Barrier film re-application is recommended every 24 to 72 hours, depending on the frequency of cleansing and severity of skin damage. When used under adhesive dressings or devices, reapply at each dressing or device change.

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**Table 3. Percentage cost-saving with the Medicareplus barrier film products**

Comparison of Medi Derma-S Barrier Film with alternative competitor product A			
Format	Medi Derma-S Barrier Film	Alternative competitor product A	% Cost Saving
1ml	£3.70	£4.09	9.5%
3ml	£5.95	£6.62	10.1%
30ml	£5.35	£5.85	8.6%
50ml	£8.95	-	-
Wipe	£19.40	£24.46	20.7%
Comparison of Medi Derma-S Barrier Film with alternative competitor product B			
1ml	£3.70	£4.18	11.5%
3ml	£5.95	£5.47 (2ml)	27.5%
30ml	£5.35	£6.51	17.8%
50ml	£8.95	£11.04	18.9%
Wipe	£19.40	£27.43	29.3%

**Table 4. Percentage cost-saving with the Medicareplus medical adhesive remover**

Comparison of Lifteez with alternative competitor product A			
Format	Lifteez Medical Adhesive Remover	Alternative competitor product A	% Cost Saving
50ml Spray/Aerosol	£5.60	£7.17	21.9%
Wipe	£8.50	£9.35	9.1%
Comparison of Lifteez with alternative competitor product B			
50ml Spray/Aerosol	£5.60	£10.24	45.3%
Wipe	£8.50	£16.97	49.9%
Lifteez vs alternative competitor product C			
50ml Spray/Aerosol	£5.60	£9.92	43.6%
Wipe	£8.50	£16.45	48.3%
Lifteez vs alternative competitor product D			
50ml Spray/Aerosol	£5.60	£9.49	41.0%
Wipe	£8.50	£15.74	46.0%
Lifteez vs alternative competitor product E			
50ml Spray/Aerosol	£5.60	£9.49	41.0%
Wipe	£8.50	£15.47	45.1%

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alternative to other similar products available on the NHS.

**Table 3** summarises the percentage cost-saving with the Medicareplus barrier film range and **Table 4** provides a similar analysis for the Medicareplus medical adhesive remover range.

## Conclusion

Most people living with a stoma are likely to experience a peristomal skin problem at least once in their lifetime, affecting their health and quality of life (Rolls et al, 2020). In the UK, the healthcare resource used due to peristomal skin complications when compared with no complications, is estimated to be £258, £383 and £505 per each instance for mild, moderate and severe peristomal skin complications, respectively (Rolls et al, 2020). The Medicareplus stoma skincare product range provides ideal options for reducing the impact of PMASD and PMARSI through a two-pronged regimen. As well as improving patient outcomes and quality of life, the Medicareplus products provide a viable, cost-saving choice to the NHS for routine management of peristomal skin complications.

## References

- Burch J (2017) Care of patients undergoing stoma formation: what the nurse needs to know. *Nurs Standard* 31(41): 40–5
- Burch J (2022) Stoma Care in the Community. *Br J Comm Nursing* 36(3): 36–41
- Burch J, Marsden J, Boyles A et al (2021) Keep it simple: peristomal skin health, quality of life and wellbeing. Best practice consensus document on skin health. *Br J Nurs* 30(6Suppl1): 1–24
- Cole N, Waller S (2023) Challenges in skin tone assessment in moisture-associated skin damage. *J Comm Nursing* 37(3): 45–9
- Colostomy UK (2022) What is a stoma? Available at: <https://www.colostomyuk.org/information/what-is-a-stoma/> (accessed 18.06.2024)
- Copson D, Freitas A (2021) A multi-centred retrospective analysis of 336 clinical evaluations of the Medi Derma Total Barrier Protection (TBP™) Product Range. *Wounds UK* 17:1: 66–74
- Gunowa NO, Brooke J, Hutchinson M et al (2020) Embedding skin tone diversity into undergraduate nurse education: through the lens of pressure injury. *J Clin Nurs* 29(21–22): 4358–67
- Hadfield G, De Freitas A, Bradbury S (2019) Clinical evaluation of a silicone adhesive remover for prevention of MARSI at dressing change. *J Community Nurs* 33(3): 36–41
- Kelly-O'Flynn S, Mohamud L, Copson D (2020) Medical adhesive-related skin injury. *Br J Nurs* 29(6):S20–6
- Lacey V (2022) Importance of peristomal skin protection. *J Comm Nursing* 36(2): 44–50
- LeBlanc K, Whiteley I, McNichol L et al (2019) Peristomal medical adhesive-related skin injury: results of an international consensus meeting. *J Wound Ostomy Continence Nurs* 46(2): 125–36
- Maglio A, Malvone AP, Scaduto V et al (2021) The frequency of early stomal, peristomal and skin complications. *Br J Nurs* 30(22): 1272–6
- Mthombeni F, Cawson M, Chan G et al (2023) The economic burden of stomas in the UK: a retrospective observational study of health records and hospital encounters. *Br J Nurs* 32(22): S12–20
- National Health Service (2021) Bladder Cancer. Complications. Available at: <https://www.nhs.uk/conditions/bladder-cancer/complications/> (accessed 18.06.2024)
- National Health Service (2020) Overview. Colostomy. Available at: <https://www.nhs.uk/conditions/colostomy/> (accessed 18.06.2024)
- National Health Service (2023) What is an ileostomy? Available at: <https://www.nhs.uk/conditions/ileostomy/what-is-an-ileostomy/> (accessed 18.06.2024)
- Nichols TR, Inglese GW (2018) The burden of Peristomal Skin Complications (PSCs) on an ostomy population as assessed by health utility and the physical component summary of the SF-36v2®. *Value in Health* 21(1): 89–94
- Parnham A, Copson D, Loban T (2020) Moisture-associated skin damage: causes and an overview of assessment, classification and management. *Br J Nurs* 29(12):S30–7
- Pietzsch JB, Geisler BP (2019) PSU9 Costs of stoma management post colorectal surgery in the UK healthcare system and implications of potential reduction in need for ostomy placement. *Value Health* 22(3): S893
- Stelton S (2019) Stoma and peristomal skin care: a clinical review. *AJN* 119(6): 38–45
- Swift T, Westgate G, Van Olsen J et al (2021) Developments in silicone technology for use in stoma care. *Br J Nurs* 30(6 Suppl 1): 7–18
- Wounds UK (2021) Best Practice Statement: Addressing skin tone bias in wound care: assessing signs and symptoms in people with dark skin tones. *Wounds UK*