

# Assessment of peristomal body profile to ensure the right fit to help prevent leakage

## ABSTRACT

Peristomal skin complications (PSCs) are a frequent issue for patients living with an ostomy. A common cause of PSCs is leakage of stomal effluent, which 76% of the patients experience at least once a month. To improve the quality of life (QoL) of people living with an ostomy, the underlying cause and predisposing factors for leakage must be identified and addressed during the selection of an ostomy solution. The aim of this publication is to highlight the importance of assessing the peristomal body profile (PBP) when finding the right ostomy solution and preventing leakage.

According to a recent consensus among ostomy care nurses, the pouch seal security and peristomal skin integrity are the most important factors to determine an optimal ostomy solution. Therefore, the patient assessment should include an evaluation of the peristomal area and type of stoma and output. The Peristomal Body Profile Terminology (BPT) was established to assist health practitioners to determine the PBP according to the area around the stoma, as well as the position of the stoma opening in relation to the skin.

Incorrect fit with consequential leakage can occur when the PBP is not considered in a structured way when selecting the ostomy solution. The most appropriate ostomy solution will vary according to the patient's PBP and preference. Therefore, it is crucial for the patients to actively engage in the assessment of their PBP together with the ostomy care nurse, to find the most appropriate 'fit to body' solution.

**Keywords** fit to body, leakage, ostomy, peristomal body profile, peristomal skin complications

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## ABBREVIATIONS

PSCs - Peristomal skin complications; QoL - Quality of life; BMI - Body mass index; PBP - Peristomal body profile; BPT - Body Profile Terminology

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## INTRODUCTION

Ostomy is a lifesaving surgical procedure for patients suffering from various conditions, including colorectal cancer, Crohn's disease, diverticulitis and ulcerative colitis. It is estimated that more than one million people live with an ostomy in the US and around 700,000 people in Europe<sup>1</sup>. Several challenges may arise following stoma surgery, such as risk of leakage and peristomal skin complications (PSCs). Nurse specialists estimate that approximately 80% of patients living with an ostomy have developed PSCs, including contact dermatitis (irritant and allergic) and infections<sup>2,3</sup>. External factors such as the COVID-19 pandemic can aggravate the issue by making patients reluctant to seek help, as revealed by a recent survey that showed that 84% of ostomy patients failed to follow up with their healthcare practitioners about their skin issues during the pandemic<sup>4</sup>.

Leakage of stomal effluent is the most common cause for PSCs in patients living with an ostomy, and around 77% of the PSCs

cases are associated with the contact of stomal effluent to the skin<sup>5</sup>. Leakage is also the major concern of patients living with an ostomy. It has been reported that 76% of patients with an ostomy experienced leakage at least once every month, while 65% of patients reported leakage outside baseplate and/or onto clothes at least once in the previous year<sup>6</sup>. The consequences of leakage are both physical and mental. The physical burden comprises feelings of pain and discomfort. The burden discourages patients to pursue a routine of physical activity, which can lead to weight gain and a potential worsening of the issue.

The mental burden is due to the constant worry of leakage. The majority of patients living with an ostomy reported that they refrained from physical or social activities because of the social stigma and risk of leakage onto clothes<sup>1</sup>. The social withdrawal may cause stress, anxiety and depression episodes, as well as excessive time dedicated to ostomy care. Using a validated four domain scale to measure the quality of life (QoL) of patients living with an ostomy, Hedegaard and colleagues<sup>7</sup> reported that all domains of the QoL scale were negatively affected by the increased frequency of leakage, namely confidence in stoma appliance, comfort, discretion and socialising. Overall, the mental burden negatively impacts QoL in ostomy patients that report regular leakages<sup>8</sup>.

In order to help patients to have a better life with an ostomy, it is essential to understand the underlying cause and predisposing factors that can lead to leakage of stomal effluent. Among the risk factors, body mass (BMI) index is closely associated with the frequency of peristomal leakage and PSCs<sup>9</sup>. The position of the stoma opening in relation to the skin surface, the shape of the skin around the stoma and the location of the stoma are also contributing factors that impact the integrity of the system and can potentially lead to leakages more frequently<sup>10</sup>. Ensuring the best fit with the individual peristomal body profiles (PBP) is also supported by the guidelines of the World Council of Enterostomal Therapists (WCET®), the Association of Stoma Care Nurses (ASCN) and the Wound, Ostomy and Continence Nursing Society (WOCN®)<sup>11-13</sup>.

The patient's PBP and type of stoma can have a profound impact on the QoL of the patients. Therefore, it is imperative that healthcare practitioners employ a standardised method to categorise the PBP so that they can recommend the optimal ostomy solution for each patient according to their individualised needs and body type. In this article, we review the characteristics of the patients with an ostomy according to their PBP and stoma type, as well as the guidelines on patient assessment to establish the PBP.

## ASSESSMENT OF THE PERISTOMAL BODY AND STOMA PROFILES: A CONSENSUS APPROACH AMONG HEALTH PRACTITIONERS

In light of the need for a standardised method to determine the PBP, an international board of stoma care nurses aimed to build a consensus over the key factors in assessing the PBP. The

intention was to create practical guidelines on how to assess PBP and raise awareness among health practitioners on the principles that should guide ostomy patient care.

In a process that involved 1225 individual responses from nurses from 27 countries, a Modified Delphi survey was undertaken, and three separate surveys were conducted online. The survey results were later ratified by 960 nurses participating at the Ostomy Days, an international education program hosted by Coloplast in Copenhagen in April 2018. The consensus achieved among the ostomy care nurses was that, in order to determine the optimal ostomy solution for each patient, the pouch seal security and peristomal skin integrity should be considered the most important factors in the decision-making process. In addition, to select the most appropriate pouching system, the patient assessment guidelines should include an evaluation of the peristomal area, the type of stoma and output, and the patient's preference and abilities.

To achieve this goal, all nurse survey responders agreed that patients should be educated and actively engaged in their pouch change process and in the evaluation of their peristomal skin health; they also specified the need for validated tools to evaluate the PBP<sup>14</sup>. The results from this consensus-based research improved the understanding of the current needs of ostomy patients. This process facilitated establishing clinical practice guidelines to increase the QoL of the patients by recommending the ostomy solution that match their PBP and ensure the best fit<sup>11-13</sup>. Furthermore, the experience-based approach enabled a quick acceptance and implementation of PBP by ostomy care nurses<sup>15</sup>.

Based on this consensus-driven survey, a common terminology for the PBP was also required. According to the definitions set by the Body Profile Terminology (BPT), the PBP of each patient can be characterised as 'regular' when the area around the stoma is at the same level of the abdomen, 'inward' when the stoma area sinks into the abdomen and 'outward' when the stoma area rises from the abdomen. The position of the ostomy opening in relation to the skin surface is also relevant for the determination of PBP and can be categorised as 'above', 'at the same level' or 'below' the surface of the skin, as illustrated in Figure 1. With those parameters in mind, the ostomy care nurse is equipped to determine the PBP for each patient and may then recommend the optimal ostomy solution based on the individual's need.

## FUTURE PERSPECTIVES ON THE USE OF PBP IN RECOMMENDING NEW OSTOMY APPLIANCES

The consensus established in the survey on the PBP provides guidance to the international ostomy care community on how to identify specific PBP, which may help clear patterns in the incidence and potential causes of peristomal complications. For example, patients living with overweight and obesity have a higher predisposition to have a PBP considered 'inward' and 'outward' which, in turn, predicts a higher risk

of leakage. In these cases, a convex or concave device might be an appropriate solution to ensure the best fit and prevent leakage<sup>16</sup>. Patients with normal weight BMI and a 'regular' PBP, on the other hand, have lower risk of leakage and, therefore, a flat base plate might be a viable solution.

Self-assessment tools, such as Coloplast's BodyCheck<sup>17</sup> can aid patients in finding their PBP and the most appropriate appliance. However, the role of the ostomy care nurse is essential to determine the correct 'fit to body solution' for each patient. A constant follow-up between the patient and the nurse can also be useful to regularly check the effectiveness of the device and to make any adjustment, if necessary. Regular check-ups are also important in case the patient's BMI or PBP changes and a new appliance may offer a better fit.

### THE USE OF CONVEXITY TO PREVENT LEAKAGE

Coloplast has developed a wide range of convex solutions for patients who often experience leakage. Using an objective leakage scale, the SenSura Mio Convex Soft has shown to significantly reduce the degree of leakage compared to flat appliances, while ensuring the feeling of security, comfort and body-fit<sup>16</sup>.

Convex appliances are also a viable alternative to prevent leakages in the postoperative period as they enable flattening the skin around the stoma and facilitating the stoma protrusion, directing the flow to the pouch. In fact, a survey of ostomy healthcare practitioners reported that 95% of the respondents claimed to use a convex pouching system in the 30 days following ostomy surgery, depending on the circumstances such as position of the stoma<sup>18</sup>. This indication has been the subject of debate, as some specialists warn that the use of convexity may cause mucocutaneous separation from the pressure exerted by the convex system. This idea, however, is not supported by research evidence.

To explore the available evidence and reach an agreement on the use of convex solution in the postoperative period, a

group of 10 ostomy care nurses and physicians completed a scoping review identifying research-based evidence and gaps in our knowledge about the subject<sup>19</sup>. The panellists reached a consensus that convexity should be considered at any time after the ostomy surgery to secure the pouch seal and prevent leakages including in the immediate postoperative period, which was defined as days 0–8 following surgery. The panellists also agreed on eight statements that support this recommendation and identified the secure pouch seal and routine follow up visits as essential steps to prevent leakage and adapt to a life with an ostomy.

### CONCLUSIONS

It is evident that a 'one size fits all' approach is not sufficient to prevent leakage. To provide a reliable ostomy solution, appliances with a personalised fit to the PBP hold the potential to reduce leakage. As such, the most appropriate ostomy solution will vary according to the patient's PBP and preference. Therefore, it is crucial for the patients to be actively engaged in their pouch change process and work together with the ostomy care nurse to determine their PBP in order to find the best possible match between ostomy solution and patient's PBP, thereby preventing PSCs.

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### CONFLICT OF INTEREST

Anne Steen Hansen is an employee of Coloplast A/S.

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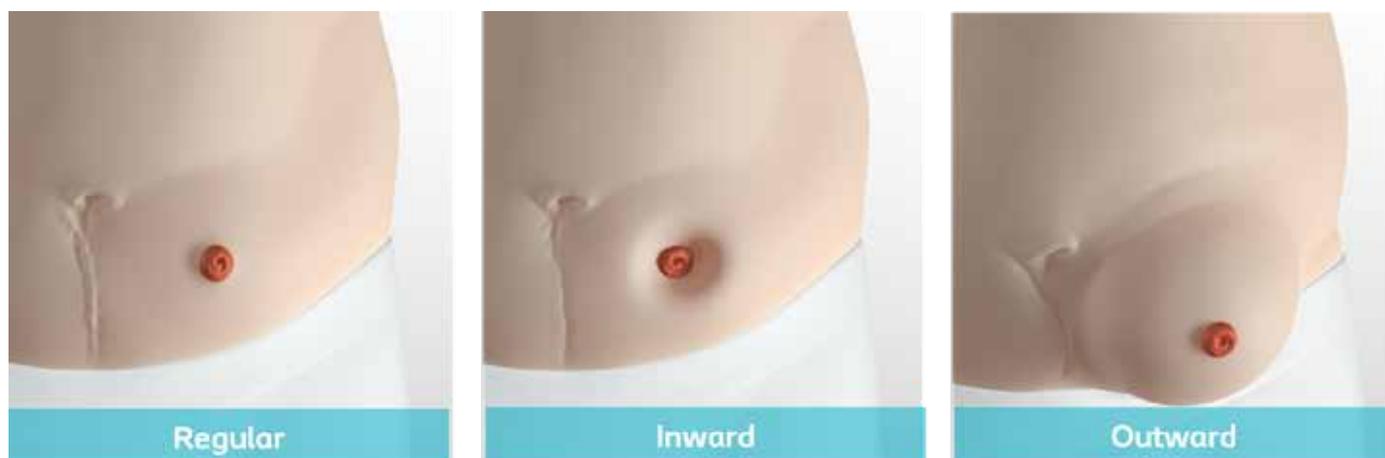


Figure 1. Peristomal Body Profile (PBP) categories. PBP can be determined according to (A) the skin area around the stoma and (B) position of the ostomy opening in relation to the surface of the skin

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