

# 2006 Update: Principles and Techniques in the Use of Convexity

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## Purpose

This poster discusses the concept of skin safety in the ostomy patient and risk reduction for peristomal skin compromise. It describes peristomal skin as tissue at perpetual risk for compromise and discusses the role of convexity as a prevention and treatment strategy.

## Background

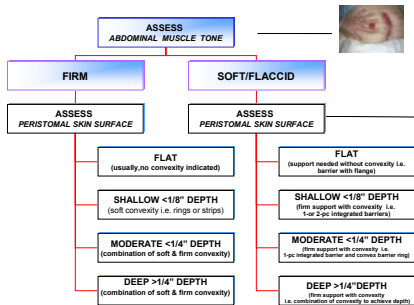
**SKIN SAFETY** is a concept used in risk assessment and prevention of pressure ulcers. It is applicable to ostomy care as well because two critical goals in skin safety are to: 1) provide safe care and 2) reduce the risk of complications.

Risk reduction and treatment strategies are based upon the knowledge that the peristomal skin is at perpetual risk for compromise. Chemical and mechanical injury as well as fungal infection are most common. However, contact dermatitis, bacterial infection and disease-related lesions are often observed. Because of the high potential for morbidity in these patients, risk reduction strategies include ongoing, routine assessment and early interventions throughout the lifespan.

The primary **RISK REDUCTION strategy** to maintain healthy peristomal skin is to achieve a pouching system that provides a sustained, predictable wear time to protect skin from chemical, mechanical and fungal infections. This risk occurs when pouch leakage and frequent pouch changes occur. In general, twice weekly pouch changes are considered normal for the adult while, more frequent intervals are expected for pediatric patients.

**CONVEXITY** is a primary strategy used to maintain a seal when accommodations are required because of stoma problems, irregular peristomal skin contours, movement induced changes of the peristomal skin surface and variations in abdominal muscle tone. Convexity provides a curving toward the peristomal skin when placed on the abdomen. It fills retracted peristomal skin surfaces, flattens irregular areas and increases the protrusion of flush stomas. Convexity may also provide support at the peristomal skin surface for the soft or flaccid abdomen. The convex shape and support are able to correct for irregularities and increase the pouching system's wear time.

**ABDOMINAL ASSESSMENT** of the peristomal skin surface and muscle tone are critical to selecting a pouching system that fits properly. The patient should be positioned in the supine, sitting, standing and bending forward positions to allow for observation of the abdomen as it changes with movement. The abdomen is palpated to determine the presence of muscle tone. Note the images adjacent to the algorithm that demonstrate these assessment techniques.



Case #1 This patient has firm abdominal muscle tone and a shallow retraction of the peristomal skin surface. A convex skin barrier ring was added to a flexible 1-pc pouching system and applied to the abdomen. The convex ring filled the retraction, yet provided flexibility needed for this firm abdomen.

## References

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Supine assessment vs. sitting assessment – note retraction that will require filling to secure a good seal.



Case #2 This patient has a soft abdomen which indicates that firm support is needed. There is also a moderate retraction present. An extended wear skin barrier ring was added to a 1-pc pouching system with integrated, firm convexity. The convexity filled the retraction and provided the abdominal support needed.

## Summary

This poster emphasizes risk reduction and skin safety for the ostomy patient. Because of the high morbidity for skin compromise in these patients, frequent evaluation and preventive interventions are recommended. Convexity is discussed and techniques presented to recognize the use of convexity as a primary prevention and treatment strategy to reduce risk of pouch leakage and peristomal skin breakdown.