

# Favorable Outcomes Using Deep Convexity – A Case Series

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## Clinical Site

This case series took place at an outpatient ostomy clinic which is a part of a large 1,400 bed tertiary research and academic facility in the southeastern United States.

## Clinical Challenge

Four patients living with an ostomy (three female and one male; ages 25-56) were seen at the outpatient ostomy clinic. Their body mass indexes ranged from 15-31.

All patients presented with similar clinical challenges including peristomal deep folds, recessed stomas, soft abdomens and high output ileostomies. Three of the patients had similar os locations around the 5 and 6 o'clock positions.

These challenges resulted in the patients experiencing unpredictable and short wear times, skin denudation, peristomal skin complications (PSC), bleeding of the peristomal skin, pain, depression and feelings of overwhelm.

## Past Ostomy Management

The patients in this series presented to the ostomy clinic with prior use of flat barriers and signs of PSCs secondary to leakage. Their previous pouching practices encompassed both 1 and 2-piece systems.

## Case 1

Patient presented 9 months post-op with recessed stoma when sitting, full thickness epidermal erosion circumferentially around the stoma, high output, pain > 10 and wear time of 4 hours. Os at 11 o'clock.



5 days after initiating 9mm deep convexity use, peristomal erosion improving.

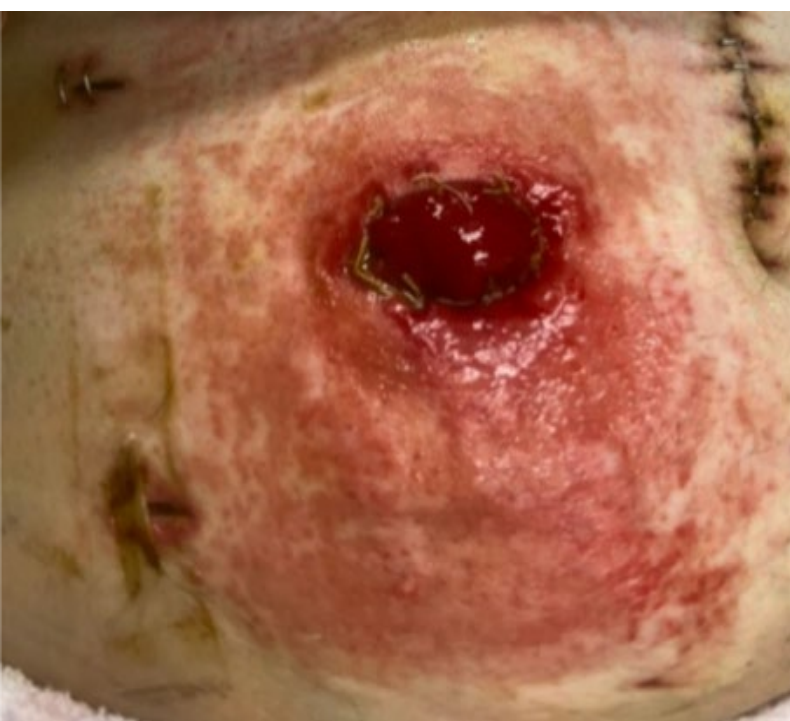


Two weeks of 9mm deep convexity use, progressive peristomal skin healing due to better barrier fit.



## Case 2

Patient presented 15 days post-op with peristomal skin fungal rash, maceration and tenderness. Os pointing downward, current wear time of 6 hours.



17 days after 9mm deep convexity use with a belt; wear time of 4 days.



Continued 9mm deep convexity use, progressive healing. Laparoscopic ileostomy closure after 6 months.



## Case 3

Patient presented with frequent readmissions due to pouching issues and pain control. Weight loss, high output, skin folds, deep creases and os at 5 o'clock.



High output pouch with 9mm deep convexity. Less denuded skin and maceration resolved near umbilicus.



Several weeks of 9mm deep convexity use, prolonged wear time of 14 days.



## Case 4

Inpatient consult for ongoing leakage, tunnel near the umbilicus and at 9 o'clock crease. Os at 6 o'clock and current wear time of 48 hours.



POD 9 placed in 9mm deep convexity. High output, skin breakdown, pt increasingly depressed and overwhelmed.



At 1 month follow-up with 9mm deep convexity use; predictable wear time of 48 hours.



## Patient Outcomes

After transition to 9mm deep convexity, all patients showed improvements in overall barrier wear time, the degree and frequency of leakage and quantity and severity of PSCs. Equally important, the patients experienced less frustration and greater confidence with activities of daily living and their ostomy management.

## Clinical Conclusion

Given the favorable outcomes of the patients in this series following the change from flat barriers to convex, deep convexity should be considered in similar patient populations including those with deep folds, recessed stomas, soft abdomens and non-centered os.

## Further Research Interest

The results of this deep convexity case series in patients with challenging peristomal skin and stoma profiles highlights the need for continued research to quantify broader clinical impact of deep convexity use. Further, research utilizing a larger patient sample size may identify additional healthcare quality of life and patient satisfaction improvements with high-output ileostomy management.