

# Successful Management of a Complex Diabetic Foot Ulcer with Heavy Exudate by Combining a Total Contact Cast and Advanced Foam/Moisture Management Dressings: a Case Study

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## BACKGROUND

Using a total contact cast (TCC) for offloading diabetic foot wounds has been established as the standard of care for achieving the fastest time to healing. Some patients, however, have copious wound exudate which prevents the use of a cast to be left in place without resulting in maceration of the wound and periwound which is detrimental to wound healing. Additional issues from undermanaged exudate are drainage onto the cast, and accompanying odor from the drainage.

## OBJECTIVE

The purpose of this case study is to demonstrate that by combining advanced foam and moisture management on a highly exuding wound under a total contact cast, it is possible to:

- prevent or minimize wound maceration
- adequately manage wound drainage
- improve patient satisfaction by eliminating odor from wound drainage on the TCC

Weeks in Treatment	Length (cm)	Width (cm)	Depth (cm)	Drainage	Treatment
1	2.6	2.4	1.0	mod amt	Hydrofiber/TCC
2	2.6	3.3	0.5	mod amt	Hydrofiber/TCC
3	2.6	3.3	0.5	mod amt	Bordered foam/TCC
4	4.5	2.8	0.3	mod amt	Advanced foam*/TCC
5	4.5	2.6	0.5	small amt	Advanced foam*/TCC
6	4.6	2.5	0.1	small amt	Advanced foam*/TCC
7	4.1	2.3	0.2	small amt	Advanced foam*/TCC
8	3.0	2.2	0.1	small amt	Advanced foam*/TCC
9	2.4	1.5	0.1	small amt	Advanced foam*/TCC
10	2.5	0.8	0.2	small amt	Advanced foam*/TCC
11	1.4	1.0	0.1	small amt	Advanced foam*/TCC
12	1.5	0.6	0.1	small amt	Advanced foam*/TCC
13	1.2	0.2	0.1	small amt	Advanced foam*/TCC
14	0.7	0.1	0.1	none	Aircast Walker
15	0	0	0	none	Aircast Walker
16	0	0	0	none	Post op Shoe

## METHODS

Retrospective analysis of the patient's clinical course of treatment from start of treatment to wound resolution showed complete wound healing in 15 weeks. Initially, large wound exudate caused significant maceration to the periwound skin increasing wound size despite offloading, and exudate on the cast resulting in cast odor, displeasing to the patient. Exudate management strategies were changed, and the use of advanced moisture and fluid management dressings resulted in significantly reduced maceration, improved wound healing, elimination of drainage onto the cast and no cast odor.

## CONCLUSION

By utilizing a highly wicking/absorbent dressing for wounds with moderate to large exudate in a TCC, there has been reduced maceration to the wound and periwound skin, while still maintaining a moist environment at the wound's surface. This combination of products for wounds with moderate to heavy drainage has resulted in:

- less wound and periwound maceration
- improved wound healing
- reduced costs (time to heal)
- improved patient satisfaction

