

# Understanding When a Foam Mattress Alone Isn't Enough

Erica Thibault, MS, RN, CWON, CNS, APN

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When it comes to pressure injuries (PI), prevention is key. The right foam support surface—including convertible mattresses with added therapies—can make all the difference. Unfortunately, there is no agreement among clinicians, researchers, and manufacturers about what constitutes a “high-quality” foam mattress.

In 2015, *The Journal of the Wound, Ostomy and Continence Nursing* published an algorithm to determine which mattresses should be used for different patient populations, including those at-risk for developing PI.<sup>1</sup> In 2018, the National Pressure Injury Advisory Panel (NPIAP) updated its Terms and Definitions document to help clarify support surface language, as well as provide information on the best-practice use of foam surfaces.<sup>2</sup> And the most recent edition of the NPIAP's *Clinical Practice Guidelines (CPG)* devoted an entire chapter just to the topic of support surfaces.<sup>3</sup>

### A different foam for higher risk?

Upon admission, patients are typically placed on a hospital-owned foam support surface. This is appropriate for most low-risk patients, but certain populations are at higher risk for PI—including patients with diabetes, poor nutrition, immobility, and other comorbidities.

Many clinicians may turn to a product labeled “high-spec foam” in these situations, but the CPG

cautions that not all foam mattresses are created equal, and says it no longer approves of the term since there are no parameters to it and it only creates confusion.<sup>3</sup> Many clinicians find that a higher-quality foam mattress may provide enough pressure redistribution—especially if an air pump is added.

### Results: Convertible Foam

A 793-bed teaching hospital found success with a convertible foam mattress—where static therapy could be converted to active therapy by adding a simple, low-cost pump. The WOC nurses added alternation therapy to their existing foam pressure redistribution mattresses in a 30-bed oncology unit<sup>4</sup>. Following two months of use, their research concluded that adding alternation therapy to their foam was integral in the overall reduction and severity of HAPIs.

Naturally, consideration must be taken to match the mattress type to the care environment; and while several technologically advanced foam and low air loss mattresses do exist, they may not be suited to LTC or homecare environments. With these factors considered and regular, thorough assessments of the patient—including the use of The Braden Scale for Predicting Pressure Sore Risk<sup>5</sup>—clinicians can ensure the correct mattress is being used to meet the specific needs of the patient.

### References:

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