

# Redefining Support Surface Terms and Definitions

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The Support Surface Standards Initiative (S3I) is the official industry standards body within the National Pressure Ulcer Advisory Panel (NPUAP). S3I develops terminology, test methods, and reporting standards for medical support surfaces—with the goal of establishing guidelines to help consumers more easily evaluate and compare support surface characteristics.<sup>1</sup>

In late 2018, the S3I committee released its new list of *Terms and Definitions Related to Support Surfaces*. The group defines support surface as: A specialized device for pressure redistribution designed for management of tissue loads, microclimate, and/or other therapeutic functions (e.g. any mattress, integrated bed system, mattress replacement, overlay, seat cushion, or seat cushion overlay).<sup>2</sup>

### Highlights of what's new

While the list contains more than 50 definitions, only a handful were new to the list, including these highlights:

- **Bottoming out:** the state of support surface deformation beyond critical immersion whereby effective pressure redistribution is lost. (*Clinical Note: bottoming out is not a good thing.*)
- **Critical immersion:** the threshold beyond which increased deformation of the support surface has the effect of concentrating and increasing localized pressure. (*Clinical Note: critical immersion is nearly bottoming out.*)
- **Full-body support surface:** a specialized device for pressure redistribution designed for management of tissue loads, microclimate, and/or other therapeutic functions. (*Clinical Note: head-to-heel support*)
- **High-specification foam support surface/mattress:** a reactive support surface meeting specific requirements of density, support factor, depth, and type of mattress cover. Characteristics are found in The International Pressure Ulcer Guidelines under Support Surfaces. (*Clinical Note: not all foam is the same.*)
- **Microclimate:** The temperature and humidity in a specified location. For purposes of support surfaces, microclimate refers to temperature and humidity at the support surface/body interface.
- **Safe working load:** Maximum external mechanical load (mass) on equipment or an equipment part that is permitted in normal use.
- **Therapeutic working load (weight range):** The rated load range at which the features of a support surface are functioning according to its intended use.

### For more information

A complete list of the S3I Terms and Definitions can be accessed online at [npuap.org](http://npuap.org).

### References:

1. Support Surfaces Standards Initiative (S3I). Retrieved from [www.npuap.org/resources/educational-and-clinical-resources/support-surface-standards-initiative-s3i/](http://www.npuap.org/resources/educational-and-clinical-resources/support-surface-standards-initiative-s3i/)
2. Terms and Definitions Related to Support Surfaces. Retrieved from [www.npuap.org/wp-content/uploads/2012/01/Terms-and-Defs-Feb-5-2019-FINAL-3.12-2.pdf](http://www.npuap.org/wp-content/uploads/2012/01/Terms-and-Defs-Feb-5-2019-FINAL-3.12-2.pdf)

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