

hours so that staff could participate either when coming on or leaving their shift. The game itself lasts 1 minute for each player.

### Learning can be fun

Staff responded enthusiastically to the program, giving us much positive feedback. Some participation came from unexpected sources. During the inservice, one of the kitchen staff said she wouldn't be able to play because she was not a nurse or certified nursing assistant. I en-

## An apple a day can help take pressure ulcer staging confusion away.

couraged her to read the information and try the game. She was able to put all the apples in the correct order and had a fun learning experience.

We plan to offer the inservice again, perhaps as an annual event. ■

### Selected references

Burruss N, Popkess A. The diverse learning needs of students. In: Billings DM, Halstead JA, eds. *Teaching in Nursing*. 4th ed. St. Louis, MO: Saunders; 2011.

NPUAP pressure ulcer stages/categories. [www.npuap.org/resources/educational-and-clinical-resources/npuap-pressure-ulcer-stagescategories](http://www.npuap.org/resources/educational-and-clinical-resources/npuap-pressure-ulcer-stagescategories).

Turner P. Apples to ulcers: Tips for staging pressure ulcers. <http://mkt.medline.com/clinical-blog/channels/clinical-solutions/apples-to-ulcers-tips-for-staging-pressure-ulcers/>

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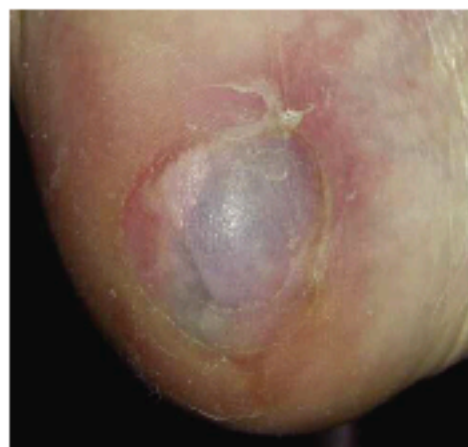
## Evolution of a deep tissue injury or a declining pressure ulcer?

By Jeri Lundgren, BSN, RN, PHN, CWS, CWCN

A declining pressure ulcer decreases the quality of life for patients and places providers at risk for regulatory citations and litigation. But it's important for clinicians to determine whether the first appearance of skin injury is truly a stage I or II pressure ulcer or if it's a deep tissue injury (DTI), a unique staging category for a pressure ulcer. Otherwise, a clinician might think a pressure ulcer is getting worse instead of the change being the normal progression of a pressure ulcer that is presenting as a DTI.

### DTI and pressure ulcer comparisons

An increasing body of evidence demonstrates that the epidermis and dermis are more resilient to the effects of pressure than muscle tissue, so many pressure ulcers start in the muscle tissue. Pressure ulcers can present within 24 hours of insult



Deep tissue injury

or can take as long as 5 days to appear. Therefore, if a patient has experienced damage to the muscle tissue, it may take days before there is any indication on the surface of the skin that a pressure ulcer has developed. Once the deep tissue damage presents itself, it's important that the clinician accurately stages it as a DTI.

Understanding the characteristics of a DTI helps clinicians determine if the pressure ulcer is a DTI or a superficial pressure ulcer. Initially, a DTI presents as a localized area of intact skin with dark discoloration, such as purple, maroon, or a bruise-like appearance, or a blood-filled blister. The tissue in the DTI area may be preceded by tissue that's painful, firm, mushy, boggy, or warmer or cooler than adjacent tissue.

On the other hand, a stage I pressure ulcer will have light discoloration, such as light pink or light red, of intact skin. If the pressure ulcer initially presents with a fluid-filled blister versus a blood-filled blister, it would be considered a stage II pressure ulcer.

### Evolution of a DTI

As a DTI evolves, clinicians may see a thin blister over a dark wound bed on the skin. The skin may open up superficially, which causes many clinicians to erroneously stage the DTI as a stage II pressure ulcer. Clinicians should continue to stage the wound as a DTI, but should describe the characteristics of how the skin is blistering or has superficial open areas. The DTI may further evolve and become covered by thin eschar, and further evolution may be rapid, exposing additional layers of tissue, even with optimal treatment. Once the DTI has fully opened, exposing the level of tissue damage, it can then be accurately staged as III or IV pressure ulcer.

### Use staging only for pressure ulcers

The staging classification system should be used for pressure ulcers only to describe the level and type of tissue involvement. Accuracy of the stage is important not only to assess the progress of the wound but also to determine appropriate interventions. For more information about staging pressure ulcers, review the [National Pressure Ulcer Advisory Panel Pressure Ulcer Stages/Categories](#).

Epidermis and dermis  
are more resilient to  
the effects of pressure  
than muscle tissue.

Keep in mind that by accurately staging a pressure ulcer you can help your patients receive appropriate treatment so they can achieve the best possible outcomes. ■

### Selected references

National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline*. Osborne Park, Western Australia: Cambridge Media; 2014.

Wound, Ostomy and Continence Nurses Society. *Guideline for Prevention and Management of Pressure Ulcers*. Mount Laurel, NJ: Wound, Ostomy and Continence Nurses Society; 2010.

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