

FAST FACTS AND CONCEPTS #40 PRESSURE ULCER MANAGEMENT: STAGING AND PREVENTION

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Background This *Fast Fact* discusses the staging and prevention of pressure ulcers; *Fast Fact #41* discusses management. Poor attention to skin care in the dying patient will result in pain, odor, swelling, reduced quality of life and increased care demands for family and other caregivers. Skin can withstand 30-60 minutes of poor perfusion, but not longer. Pressure ulcers result from ischemia due to pressure closing the microarterioles, particularly at pressure points such as the heels, sacrum and elbows. Intrinsic risk factors for ulcer development are limited mobility, conditions that reduce tissue oxygenation, age-related changes in skin, and cachexia. Extrinsic factors are physical forces such as friction, moisture, and shear forces.

Prevention of ulcers is the highest level of care; bedbound patients need to be turned regularly and/or need a pressure-reducing surface. Skin should be protected from friction, moisture and shear. High-risk areas should have either a thin film or hydrocolloid dressings applied. Early involvement of a wound care specialist is recommended to assist with education, on-going assessment, and dressing choices tailored for the patient's unique circumstances with regards to comfort, cost, wear time, prognosis, and wound characteristics.

Ulcer Progression

- *Stage I.* The heralding lesion of skin ulceration is *non-blanchable erythema*.
- *Stage II.* Partial-thickness skin loss involving epidermis, dermis, or both. The ulcer is superficial and looks like an abrasion or shallow crater or blister.
- *Stage III.* Full thickness skin loss involving subcutaneous tissue. The ulcer may extend down to, but not through, the underlying fascia. The ulcer looks like a deep crater, with or without undermining of adjacent tissue.
- *Stage IV.* The ulcer is deep enough to include necrosis and damage to underlying muscle, bone, and/or other supporting structures such as tendon or joint capsule. Undermining of adjacent skin and sinus tracts may also be present.

Pressure Reducing Surfaces There are 3 groups of support surfaces that have demonstrated effectiveness; some need to be ordered by a physician.

1. Air or water mattress overlays (e.g. Roho)— ideal for most patients to prevent pressure ulcers. Order for patients at risk for pressure ulcers.
2. Low-air-loss beds (e.g. Kenn-air, Dyna-Care, Sof-Care) can be used for high-risk patients or patients with existing ulcers to prevent worsening or to help with healing.
3. Air-fluidized beds (e.g. Clinatron, Fluid-air) are reserved for patients needing maximum pressure reduction and pressure relief. Patients, however, frequently describe them as overly confining (even “coffin-like”) and they are very expensive (e.g. a Clinatron bed may lease for > \$100/day).

Note: Simple foam pads are often ineffective. If they are used, particularly in the home, they should be laid one on top of the other. If a hand is placed under the pads, there should be at least 1 inch of non-compressed foam between the hand and the patient. Never use round cushions (a.k.a. donuts); they occlude blood flow and do not prevent ulcers. Professional assessment and design is needed for special pressure reducing cushions (e.g. for wheelchairs).

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Version History: This *Fast Fact* was originally edited by David E Weissman MD. 2nd Edition published August 2005; 3rd Edition June 2015. Current version re-copy-edited March 2009; then again in May 2015.

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