

# What the experts say

## Reduce the risk of heel pressure injury in the OR and the ICU

A pressure injury is localized damage to the skin and/or underlying soft tissue usually over a bony prominence or related to a medical or other device. The injury can present as intact skin or an open ulcer and may be painful. The injury occurs as a result of intense and/or prolonged pressure or pressure in combination with shear.<sup>1</sup>

### Recommendations & guidelines

#### AORN Guidelines for Perioperative Practice 2017<sup>2</sup>

- “In the supine position, the patient’s knees should be flexed approximately 5 degrees to 10 degrees...”  
“This intervention also helps relieve pressure on the patient’s lower back and popliteal vein compression, reducing the patient’s risk of deep vein thrombosis (DVT)”
- “...the patient’s heels should be elevated off the underlying surface using a heel-suspension device.”  
“Elevating the patient’s heels off the bed helps to increase perfusion and prevent pressure injury.”
- “...using a heel suspension device or a wide, pressure redistributing surface.” “The heel suspension device... distributes the weight of the patient’s leg along the calf without placing pressure on the Achilles tendon.”

#### NPUAP Guidelines 2014<sup>3</sup>

- “Ensure the heels are free of the surface of the operating table.”
- “Position the knees in slight flexion when offloading the heels”
- Ensure that the heels are free of the surface of the bed ... elevate and offload the heel in such a way as to distribute the weight of the leg along the calf without placing pressure on the Achilles tendon.
- **Stage 1 or 2:** Relieve pressure under the heel(s) with Category/Stage I or II pressure ulcers by placing legs on a pillow to “float the heels” off the bed or by using heel suspension devices.
- **Stage 3, 4, or unstageable:** Place the leg in a device that elevates the heel from the surface of the bed, completely offloading the pressure ulcer. Consider a device that also prevents footdrop.

#### AHQ/AHCPR Supported Clinical Practice Guidelines 1992<sup>4</sup>

Individuals in bed who are completely immobile should have a care plan that includes the use of devices that totally relieve pressure on the heels, most commonly by raising the heels off the bed.

### Published outcomes

#### Preventing Heel Pressure Ulcers and Plantar Flexion Contracture in High-Risk Sedated Patients<sup>5</sup>

- 50% reduction in prevalence of abnormal heel position
- No patients developed plantar flexion contractures or new heel ulcers

#### Preventing Heel Pressure Ulcers Sustained Quality Improvement Initiative in a Canadian Acute Care Facility<sup>6</sup>

- 28% decrease in the incidence of facility-acquired heel pressure ulcers over a 1-year period
- 72% decrease over a 4-year period

#### References:

1. National Pressure Ulcer Advisory Panel (NPUAP) announces change in terminology from pressure ulcer to pressure injury and updates the stages of pressure injury, Press Release, April 13, 2016. 2. AORN Guidelines for Perioperative Practice, 2017 Edition. Denver, CO. 3. 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. Emily Haesler (Ed.). Cambridge Media: Osborne Park, Western Australia; 2014. 4. AHQPR Publication No.92-0047. Rockville, MD: Agency for Health Care Policy and Research, Public Health Service, U.S. Dept of Health and Human Svcs. May 1992. 5. Meyers T, Preventing Heel Pressure Ulcers and Plantar Flexion Contractures in High Risk Sedated Patients. J Wound Ostomy Continence Nurs. 2010 Jul-Aug;37(4):372-8. 6. Hanna-Bull D, Preventing Heel Pressure Ulcers Sustained Quality Improvement Initiative in a Canadian Acute Care Facility. J Wound Ostomy Continence Nurs. 2016 Mar-Apr;43(2):129-132.