



Pressure Injuries

Also called pressure ulcers, bed sores, or pressure sores

What is a pressure injury?

A pressure injury is damage to the skin and the tissue underneath it, caused by staying in one position too long. The weight of the body presses skin against bone and squeezes the tiny blood vessels shut. Without blood, the tissue begins to die, sometimes in as little as two hours.

The most common spots are the tailbone, the hips, the heels, the shoulder blades, the back of the head, the ears, and the elbows. In people who use a wheelchair, the sitting bones and tailbone are the usual sites.

The stages

- **Stage 1.** Skin is unbroken but there is a reddened area that does not turn white when you press on it. On darker skin it may look purple, blue, or simply different from the skin around it, and may feel firmer, warmer, or cooler.
- **Stage 2.** The top layer of skin is gone. It looks like a shallow open sore, a scrape, or an intact or broken blister.
- **Stage 3.** The wound goes through the full thickness of the skin into the fat below. It may look like a crater and may tunnel under the edges.
- **Stage 4.** The wound extends down to muscle, tendon, or bone.
- **Unstageable.** The base of the wound is covered by dead tissue, so the true depth cannot be seen until that tissue is removed.
- **Deep tissue injury.** Intact or blistered skin that is deep purple or maroon. Damage started underneath and may open up over the next several days.

Why it happens

Pressure is the main cause, but three other forces make it worse. **Shear** happens when the skin stays put while the bones slide underneath, which is what occurs when someone slides down in bed. **Friction** is skin dragging across a sheet. **Moisture** from sweat, urine, or stool softens the skin and makes it tear easily.

Risk goes up with limited mobility, poor nutrition, low protein, dehydration, incontinence, loss of sensation, low blood pressure, and any serious illness.



How we treat it

- **Relieving pressure.** A wound cannot heal while it is still being crushed. We build a turning schedule, position with pillows and wedges, and recommend the right mattress, overlay, or wheelchair cushion.
- **Floating the heels.** Heels come off the bed entirely, supported by a pillow under the calves or with heel protection boots.
- **Debridement.** Dead tissue is removed so healthy tissue can fill in. We choose the gentlest method that will work.
- **Dressings matched to the wound.** Deep wounds need to be filled loosely so they heal from the bottom up. Draining wounds need absorption. Dry wounds need moisture.
- **Managing moisture and incontinence.** Barrier creams, prompt cleansing, and the right products keep the skin around the wound intact.
- **Nutrition.** Healing takes protein, calories, fluid, vitamin C, and zinc. We review intake and coordinate supplements with your provider.
- **Negative pressure wound therapy** (a wound vacuum) for some deep wounds, to draw the edges together and remove fluid.

What you and your caregivers can do

- Change position at least every two hours in bed, and every 15 minutes when sitting in a chair. Set a timer.
- Do not raise the head of the bed more than 30 degrees for long, because it makes the body slide and shear the tailbone.
- Lift, do not drag. Use a draw sheet or slide sheet with two people rather than pulling someone up by the arms.
- Check the skin over every bony area at least once a day, in good light.
- Keep skin clean and dry. Clean promptly after every incontinence episode and apply a barrier cream.
- Never massage a reddened area over a bone. It causes more damage.
- Do not use donut-shaped cushions. They cut off circulation in a ring around the wound.
- Eat protein at every meal and drink fluids through the day unless your provider has limited them.



When to call us right away

- A new reddened, purple, or discolored area that does not fade within 30 minutes of taking pressure off
- The wound growing wider or deeper
- Increasing pain, swelling, warmth, or redness spreading outward
- Thick, cloudy, green, or foul-smelling drainage
- Fever, chills, or new confusion
- A blister or open area over any bony spot