Kennedy Ulcers: Unavoidable skin breakdown in the end of life

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THE SKIN IS A WINDOW INTO THE OVERALL HEALTH OF THE BODY. IF READ CORRECTLY, IT CAN PROVIDE A GREAT DEAL OF INSIGHT INTO WHAT IS HAPPENING TO THE INSIDE OF THE BODY

Skin Breakdown in the Elderly

Skin becomes more vulnerable w/ aging…

→ Decreased cohesion between skin layers results in increased fragility.

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Loss of subcutaneous tissue results in thinning of skin.

→ Reduced activity of sebaceous and sweat glands results in dry skin.

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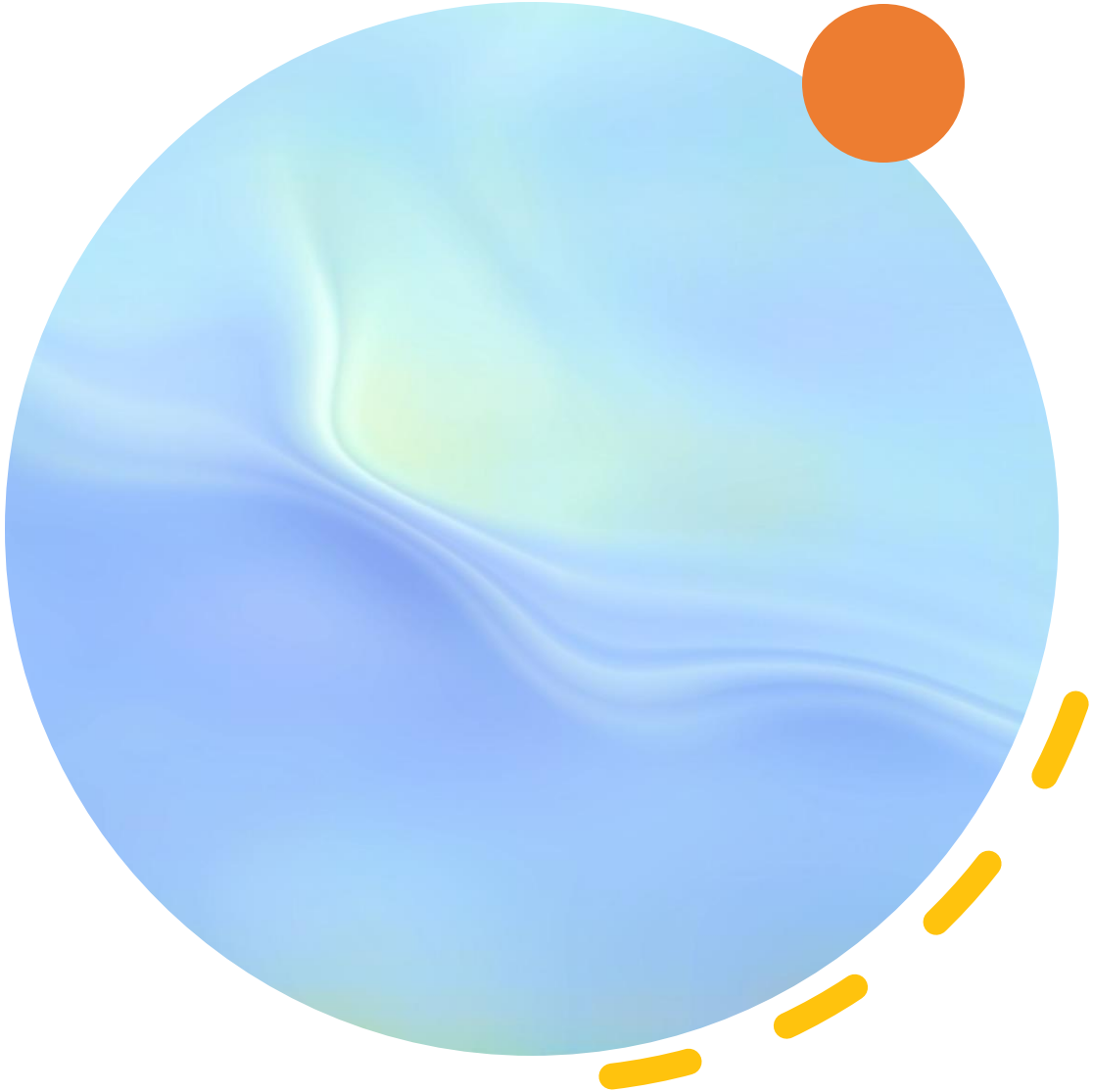
Decreased pliability and elasticity (less forgiving).

→ - Fragile capillaries increase risk for ecchymosis.



Skin Breakdown at End of Life

Compounded by the following:

- Immobility/Limited mobility

- Incontinence

- Inadequate/suboptimal nutrition (body wasting)

- Decreased cutaneous perfusion (localized hypoxemia)

What is a Kennedy Ulcer?

- Kennedy terminal ulcers were first identified by Karen Lou Kennedy-Evans and her colleagues in Fort Wayne, Indiana in 1983
- It is a dark sore that develops rapidly during the final stages of a person's life. Kennedy ulcers are thought to be attributable to local ischemia and skin breakdown as the body shunts blood to vital organs but their exact cause is unknown.
- Not everyone experiences these ulcers in their final days and hours, but they are not uncommon. While they can look similar. Kennedy ulcers are different from pressure ulcers.

Home care patient diagnosed with a Kennedy Terminal Ulce

What are the symptoms?

- It can be hard to distinguish between a pressure ulcer or bruise and a Kennedy ulcer at first glance. However, Kennedy ulcers have a few unique characteristics that you can look for:

1. **LOCATION.** Kennedy Ulcers typically develop on the sacrum.
2. **SHAPE.** Kennedy ulcers often start as a pear- or butterfly shaped bruise. The initial spot may grow rapidly. Various shapes and sizes may be observed as the ulcer spreads.
3. **COLOR.** Kennedy Ulcers can have a range of colors, similar to a bruise. You may see shades of red, yellow, black, purple and blue. In it's later stages, a Kennedy Ulcer starts to become more black and swollen. This is a sign of tissue death.
4. **ONSET.** Kennedy Ulcers pop up suddenly. It may look like a bruise at the start of the day and an ulcer by the end of the day.
5. **BORDERS.** The edges of a Kennedy Ulcer are often irregular, and the shape is rarely symmetrical. Bruises, however, may be more uniform in size and shape.

What causes them?

It’s unclear why Kennedy Ulcers develop. One theory is that the deteriorating skin may be a sign that the organs and body functions are shutting down.

Much like our heart or lungs, our skin is an organ. As the vascular system shuts down, it also becomes harder to pump blood throughout the body. Blood can be shunted to more vital organs and perfusion to the skin becomes diminished resulting in tissue death.

How are they diagnosed?

They are diagnosed primarily by exam alone. In the majority of cases, a person who develops a Kennedy Ulcer will already be under the close supervision of a doctor or hospice care provider who knows how to recognize Kennedy Ulcers. However, sometimes a caregiver or a loved one may be the first to notice the ulcer.

Try to note how long the ulcer has been there and how quickly it's changed since you first notice it. This information is very helpful for distinguishing between a Pressure Ulcer and a Kennedy Ulcer.

Kennedy or Pressure Ulcer?

Kennedy ulcers and pressure ulcers are not the same medical phenomenon.

- They appear and progress differently
- Their primary cause is very different

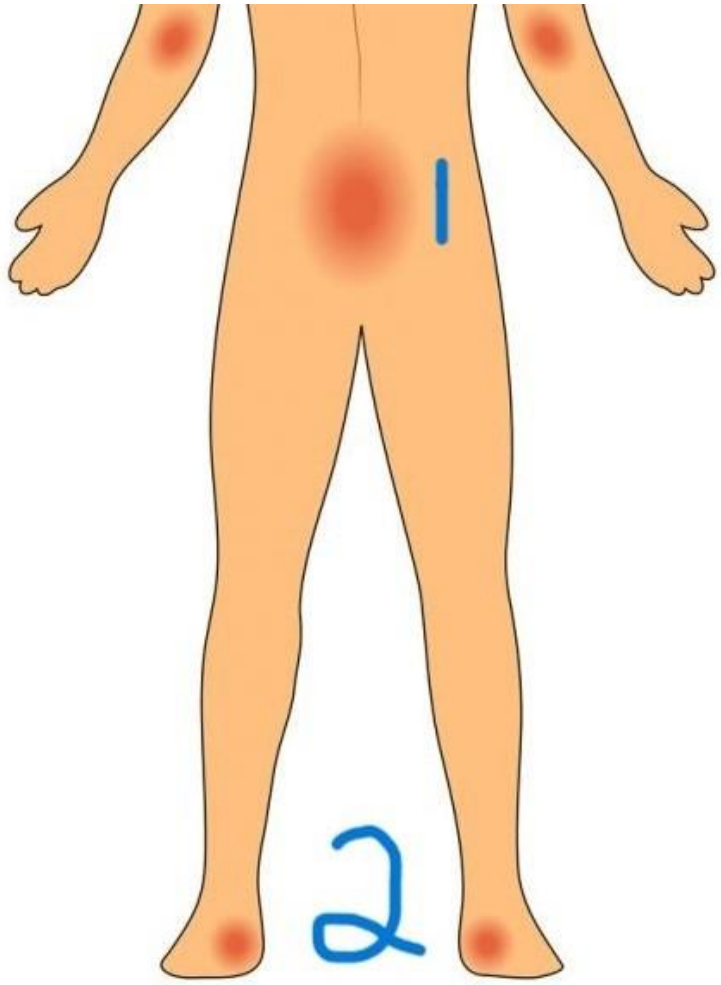
Pressure injuries and ulcers are caused by pressure on areas that come into contact with a bed, chair or medical device for longer periods of time. They typically occur over a longer period of time whereas a Kennedy ulcer will usually present and progress rapidly

Thermal imaging can be a tool that assists with differentiation of the two when etiology is not clear

Most Common Sites of Pressure Injury

#1 – Sacrum

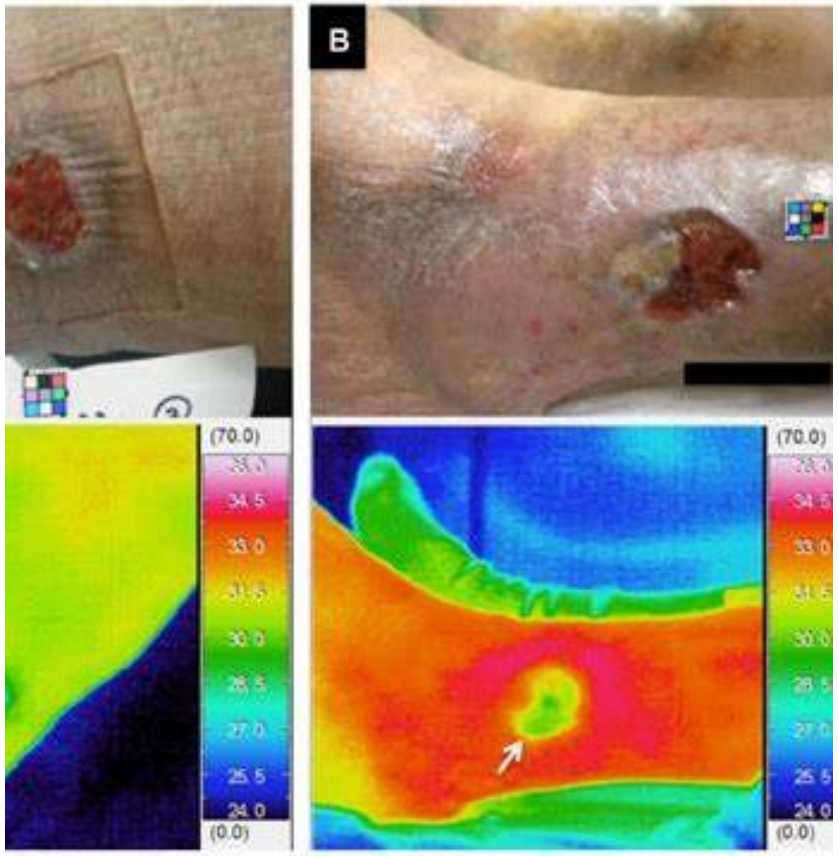
#2 - Heels



Thermal Imaging and Kennedy Ulcers

- What is thermal imaging?
  - Longwave infrared thermography systems include infrared cameras and software for measuring wound size and thermal intensity.
  - This captures a thermographic image which can show a temperature pattern of the area imaged.

  Temperature changes often precede skin color changes
  - Inflammation shows up as a warmer color (red)
  - Hypoperfusion shows up as a cooler color (blue)
  - This can help differentiate a Kennedy ulceration from a pressure wound as they typically show up as an area of hypoperfusion where a pressure wound can typically present early on with an inflammatory response



Documentation of a Kennedy Ulcer

Conduct a thorough skin assessment/frequent reassessment, paying close attention to at-risk sites

Document TIME of presentation and APPEARANCE (location, size, shape, color, temp, feel)

Important to note…

Patient's condition/co-morbidities

Cares implemented to avoid continued pressure/skin breakdown

Frequent reassessment of site, noting appearance and ongoing deterioration despite appropriate measures of care

Likelihood of Kennedy ulcer, per supporting documentation

What Can We Do?

What Can We Do?

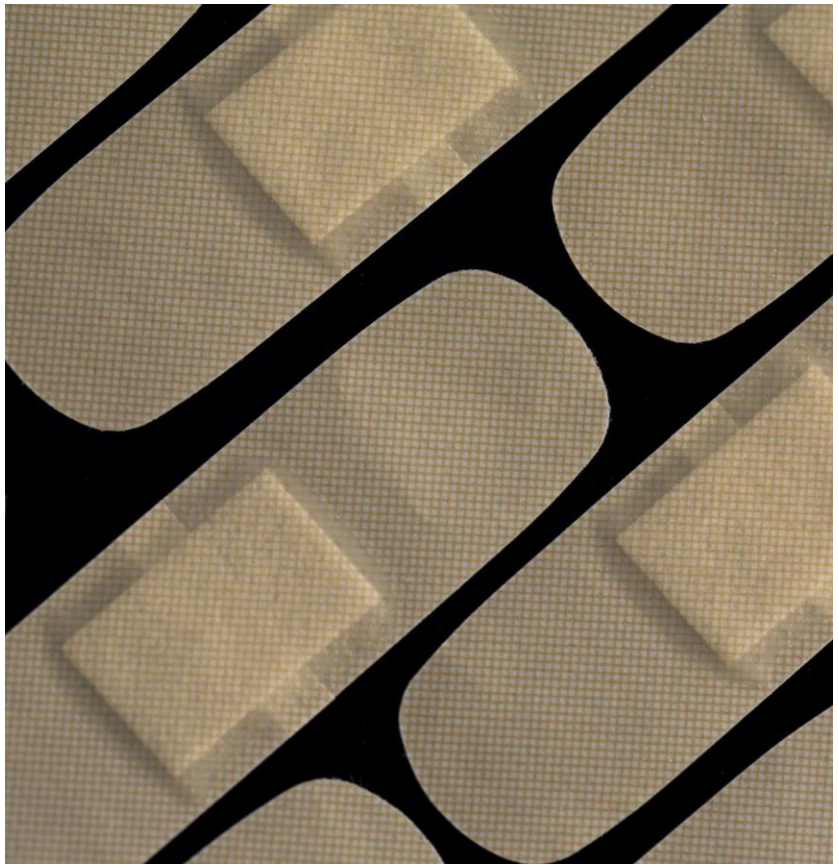
Provide appropriate and good skin care with…

- Timely cleaning after episodes of incontinence
- Use of appropriate pH balanced cleansers (avoidance of alkaline products)
- Use of absorptive products that wick urine/stool
- Use of topical products that ensure supple, well-hydrated skin

Routine use: emollients (mineral oil, petrolatum)

moisture barriers (dimethicone)

Very dry skin: humectants (glycerine, lac-hydrin, urea)



How are they treated?

Kennedy Ulcers signal the start of the dying process, and there's no way to get rid of them. Instead, treatment focuses on making the person as comfortable and pain free as possible. Depending on where the ulcer is, this may involve placing a soft cushion under the affected area.

Prevention?

If patient is clearly at end of life, and death is imminent, skin breakdown is a likely unavoidable.

Again, the skin is an organ and like other organs, it shuts down/dies.

However, there are things we CAN do to alleviate skin breakdown and/or the formation of wounds at end of life.

Case Study