and soft, smooth bed linens and clothing (Baharestani and Ratliff, 2007). By itself, friction does not cause tissue necrosis, but when it acts with gravity, it results in shear injury.

Shear is the result of the force of gravity pushing down on the body and friction of the body against a surface, such as the bed or chair. For example, when a patient is in the semi-Fowler position and begins to slide to the foot of the bed, the skin over the sacral area remains in the same place because of the resistance of the bed surface. The blood vessels in the area are stretched and may cause small-vessel thrombosis and tissue death. Prevention of shear injury includes using lift sheets when repositioning a patient, elevating the bed no more than 30 degrees for short periods, and using the knee gatch to interrupt the pull of gravity on the body toward the foot of the bed.

Epidermal stripping results when the epidermis is unintentionally removed when tape is removed. These lesions are usually shallow and irregularly shaped. Babies are at increased risk for epidermal injury. Prevention includes using no tape when possible, securing dressings with laced binders (Montgomery straps) or stretchy netting (Spandage or stockinette). Using porous or low-tack tapes (e.g., Medipore, paper, hydrogel), using alcohol-free skin sealants (No Sting Barrier Film), or picture framing wounds with hydrocolloid or wafer barriers (e.g., DuoDERM, Coloplast, Stomahesive) and then taping on top of the barrier also will reduce epidermal stripping.

Tape is placed so that there is no tension, traction, or wrinkles on the skin. To remove tape, slowly peel the tape away while stabilizing the underlying skin. Adhesive remover may be used to break the adhesive bond but may be drying to the skin. Avoid adhesive removers in preterm neonates because absorption rates vary and toxicity may occur. Remove the adhesive with water to prevent absorption and irritation. Wetting the tape with water or alcohol-based foam hand cleansers may facilitate removal.

Chemical factors can also lead to skin damage. Fecal incontinence, especially when mixed with urine; wound drainage; or gastric drainage around gastrostomy tubes can erode the epidermis. The skin can quickly progress from redness to denudement if exposure continues. Moisture barriers, gentle cleansing as soon after exposure as possible, and skin barriers can