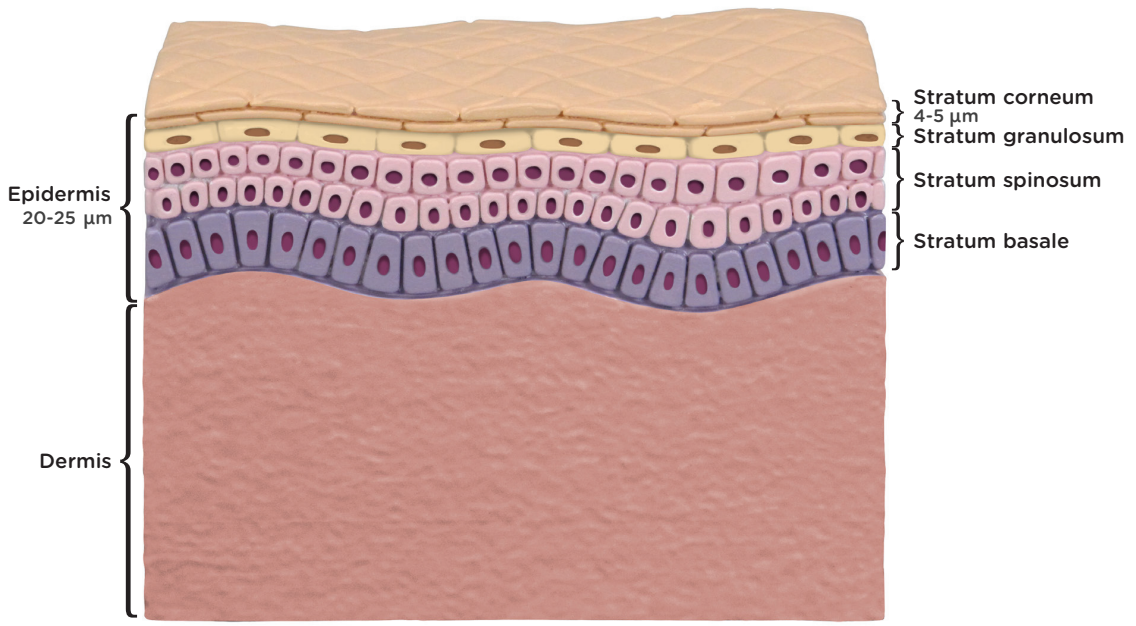
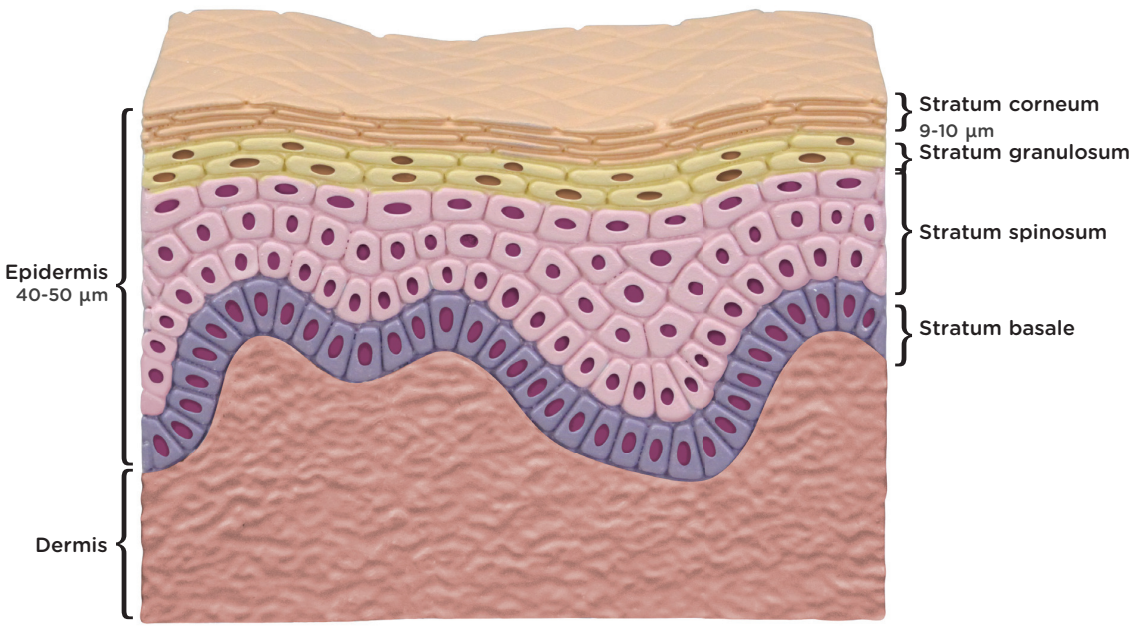
ANATOMICAL STRUCTURE OF THE SKIN

Premature Infant Skin



Full-Term Infant Skin



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STRUCTURAL & FUNCTIONAL DIFFERENCES BETWEEN PREMATURE & FULL-TERM INFANT SKIN

Premature infants are born with under-developed skin and have unique skin care needs compared to full-term infants.

- Premature infant skin has a thinner epidermis compared to full-term infant skin (up to half as thick in extremely premature infants).[1-3]
  - As a consequence, premature skin has less physical barrier protection.

- Premature infant skin is very permeable to both water and irritants due to having an under-developed stratum corneum compared to full-term infant skin.[4]
  - This results in increased risk for skin irritation and skin breakdown in premature infants.

- Premature infant skin has less structural proteins in the dermal layer, rendering a weaker junction between the dermis and epidermis compared to full-term infant skin.[5]
  - This results in skin being more easily damaged by mechanical action such as cleansing of skin for removal of urine or feces.

References:
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4. Visscher, Marty O. "Update on the Use of Topical Agents in Neonates." Newborn and Infant Nursing Reviews 9.1 (2009): 31-47.
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