

Healthy Neonates Skin Characteristics and Care

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Abstract

The very first month of life is referred to as the neonatal period. The skin of a healthy newborn has structural components that are similar to those of an adult, but it has several properties that are distinct from adult skin. It takes time to adjust to the external environment and mature. During this phase, additional care and attention should be given to skin health and the prevention of illnesses that affect not only the skin but also other systems such as the respiratory system.

Keywords: Neonate; Skin; Care

Introduction

Neonates can indeed be full term (born between 37 and 42 weeks gestational age), preterm (born before the 37th gestational week), or post-term (born beyond the 42nd gestational week) (born after 42 weeks of gestation). The transition from intrauterine life to the exterior environment is symbolized by the birth of the neonate. Modulation of trans epidermal water fluxes, prevention from dehydration and excessive water influx and maintenance of electrolyte homeostasis, thermoregulation and caloric loss minimization, tactile sensation, antimicrobial defensive performance, safeguards from exposure to toxins, trauma, and ultraviolet rays are just a few of the functions that the skin accomplishes.

Human Skin: Its structure and growth

Epidermis, dermis, and a subcutaneous layer make up the skin. The epidermis is made up of keratinocytes, melanocytes from the neural crest, antigen-processing Langerhans cells from the bone marrow, and pressure-sensing Merkel cells from the neural crest [1]. While collagen, elastic fibers, blood vessels, sensory structures, and fibroblasts make up the dermis, lymphocytes make up the subcutaneous layer. The skin is a dynamic organ that changes constantly during one's life. The definitive multilayered skin is present at birth, and it is covered in *vernix caseosa*, a white, cheesy, lipophilic material. This protective layer is absent in the vast majority of preterm neonates. The *vernix caseosa* aids in skin hydration during pregnancy and may aid in the formation of the acidic barrier, a dip in skin pH that happens within weeks after delivery [2].

Skin structure in newborns and adults

Although the skin of a healthy infant includes structural components that are similar to those of an adult, it has several distinct properties. In both age groups, the number of cell layers (about 15-20) and overall thickness of the stratum corneum (roughly 15 μm) are similar. Because epidermal cell cohesion and adhesion are not fully developed in newborn skin, the epidermal-dermal junction connection is weaker than in adult skin. Newborns have a larger skin surface area to weight ratio (700 cm²/kg vs. 250 cm²/kg for adults). In comparison to adult skin, melanin production is lower, and the pH of the skin surface is higher [3].

General skin care for neonates

The full-term newborn can simply be wiped or cleansed with water after birth. Excessive *vernix* can be eliminated, but it's recommended to leave it on the skin in general. Even if the *vernix* is still present, latex-free gloves should be worn when touching the baby. The first bath should be postponed until vital indicators have returned to normal.

Although routine washing can begin before the umbilical cord has dropped, there may be benefits to waiting [4]. Cleaning the umbilical cord with 4 percent Chlorhexidine every 10 days until the cord falls has been found to minimize the risk of infection and infant death in Nepal, and may be beneficial in other locations where umbilical infection is common. Bathing has been demonstrated to have various advantages as compared to cloth or sponge washing.

When compared to cloth washing, infants are often calmer and quieter when bathed. Bathing also reduces heat loss compared to fabric washing. Bathing in the evening can help the infant relax and sleep better. Cleansers should be avoided in the first few weeks of life, and lukewarm water baths are preferable. Bathing babies for 5-10 minutes is sufficient, with some writers advocating bathing for even shorter times. Bathing for an extended period of time hydrates the skin and lowers the friction threshold [2]. The water temperature should be between 37 and 37.5 degrees Celsius. The water should be deep enough to reach the infant's hips. To keep body heat, cover the tummy with a washcloth or sprinkle water on it.

The temperature in the room should be between 20-21 degrees Celsius. Bathing on a daily basis is discouraged, and bathing should be given only 2-3 times a week. To avoid microbiological contamination, sanitize the bath and any bath toys. Hard plastic toys should be scrubbed in warm soapy water with a brush to clean crevices, rinsed in clean water, soaked in a moderate bleach solution for 10-20 minutes, rinsed again, and left to air dry. Hard plastic toys can also be washed in the dishwasher or on the hot cycle of a washing machine. Avoid toys that cannot be washed, disinfected, or dry-cleaned after usage. Cleansing agents should be liquid, mild, soap-free, fragrance-free, and neutral or slightly acidic in pH; they should not irritate the baby's skin or eyes, nor should they alter the skin's protective acid mantle. Diapers should be changed often, and disposable diapers that are superabsorbent should be utilized. The daily cleaning of urine can be accomplished by scrubbing the diaper area with warm water and cotton without soap [5].

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Received: 1-Dec-2021, Manuscript No: nnp-21-48819, **Editor assigned:** 3-Dec-2021, PreQC No: nnp-21-48819(PQ), **Reviewed:** 15-Dec-2021, QC No: nnp-21-48819, **Revised:** 1-Jan-2022, Manuscript No: nnp-21-48819(R), **Published:** 9-Jan-2022, DOI: 10.4172/2572-4983.1000217

Citation: Kalyan MP (2022) Healthy Neonates Skin Characteristics and Care. Neonat Pediatr Med 8: 217.

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References

1. Bartels NG, Scheufele R, Prosch F, Schink T, Proquitté H, et.al. (2010) Effect of standardized skin care regimens on neonatal skin barrier function in different body areas. *Pediatr Dermatol* 27: 1-8.
2. Blume-Peytavi U, Hauser M, Stamatias GN, Pathirana D, Bartels NG (2012) Skin care practices for newborns and infants: review of the clinical evidence for best practices. *Pediatr Dermatol* 29: 1-4.
3. Chung HU, Rwei AY, Hourlier-Fargette A, Xu S, Lee K, et.al. (2020) Skin-interfaced biosensors for advanced wireless physiological monitoring in neonatal and pediatric intensive-care units. *Natur Med* 26: 418-429.
4. Ludington-Hoe S, Anderson GC, Swinth J, Thompson C, Hadeed A (2004) Randomized controlled trial of kangaroo care: cardiorespiratory and thermal effects on healthy preterm infants. *Neonat Net* 23: 39-48.
5. Fox MD (2011) Wound care in the neonatal intensive care unit. *Neonat Net* 30: 291-303.