



Huggies Natural Care[®] Baby Wipes

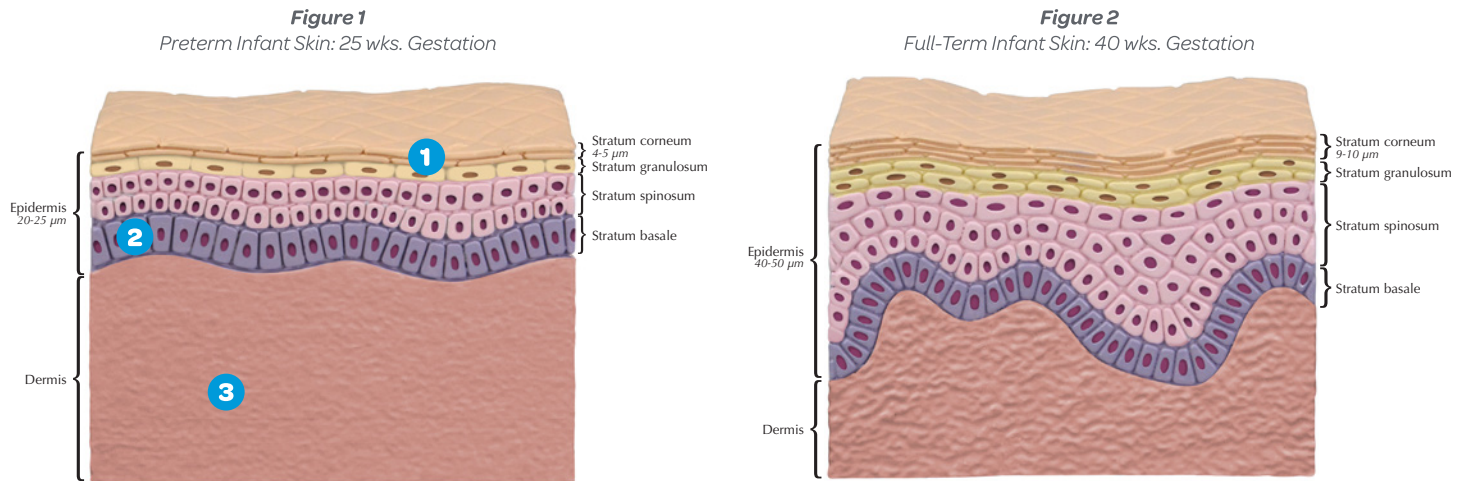
*Baby Wipes Designed for the Unique Skin Health Needs
of Preterm and Full-term Infants*



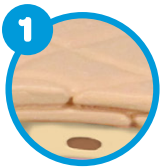
Newborn Infant Skin Physiology

Structure and function

When caring for newborn skin, consideration should be taken to ensure that skin care practices reflect the unique needs of the infant. The Huggies Skin Health Team is committed to combining clinical insights with innovation that enables our products to be soft, gentle and effective on skin of the preterm and full-term infant.

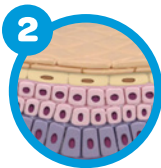


Preterm infants have under-developed skin (Figure 1) with unique skin care needs versus the skin of full-term infants (Figure 2).



1 Stratum Corneum Layer

- The under-developed *stratum corneum* layer of premature skin is more permeable to water and irritants.
- Preterm skin is at greater risk of skin irritation, breakdown and loss of moisture.¹



2 Epidermis Layer

- The *epidermis* (outer layer) of premature infant skin is no more than half the thickness of full-term infants.
- Preterm skin has less physical barrier protection to skin irritants (urine & feces).²⁻⁴



3 Dermis Layer

- The *dermis* layer of premature skin contains less structural proteins than the skin of full-term infants. Proteins are necessary to strengthen the junction between the dermis and epidermis.
- Less structural proteins in preterm skin means it is more easily damaged by mechanical action (such as cleansing of skin for removal of urine or feces).⁵

1. Visscher, Marty O. "Update on the Use of Topical Agents in Neonates." *Newborn and Infant Nursing Reviews* 9.1 (2009): 31-47.
2. Jackson, Amanda. "Time to Review Newborn Skincare." *Infant* 4.5 (2008): 168-171.
3. Evans, N. J., and N. Rutter. "Development of the Epidermis in the Newborn." *Neonatology* 49.2 (1986): 74-80.
4. Nopper, Amy Jo, Kimberly A. Horii, Sharon Sookdeo-Drost, Tung Ho Wang, Anthony J. Mancini, and Alfred T. Lane. "Topical Ointment Therapy Benefits Premature Infants." *The Journal of Pediatrics* 128.5 (1996): 660-669.
5. Holbrook KA. A histologic comparison of infant and adult skin. In: Maibach HI, editor., Boisits EK, editor., eds. *Neonatal Skin: Structure and Function*. New York: Marcel Dekker, Inc., 1982:3-31

Huggies® Baby Wipes

Our best care for newborn diapered skin.

The AWHONN Evidence-Based Practice Guideline for Neonatal Skin provides practice recommendations for neonatal skin. One primary recommendation specifies the importance of maintaining an optimal skin environment in the perineal area. Research confirms that prolonged contact of skin with a mixture of urine and feces is a primary risk factor for diaper dermatitis. These guidelines suggest the use of appropriate methods to clean the diaper area; such as use of properly formulated disposable diaper wipes.¹



Huggies® has collaborated with Perinatal and NICU nurses to understand the unique differences in caring for both preterm and full-term infant skin. As a result, Huggies has specially designed **two** very unique wipes to address the skin health needs of both preterm and full-term infants to support best clinical practices.

Huggies Baby Wipes are composed of three key components

Each component serves a specific role in maintaining the optimal skin environment for delicate infant skin.

Gentle

Formulation

pH adjusted to skin to help maintain the proper skin barrier function and formulated with safe skin-friendly ingredients.



Effective

Basesheet

Our Proprietary technology absorbs, locks-in and retains waste fluid for effective removal of waste.

Safety is at the heart of everything we do

Packaging

Our Proprietary dispensing technology helps reduce the risk of cross-contamination, while wipes are protected with gentle and safe ingredients to keep product fresh before and during use.



Safe

Huggies Natural Care® Wipes



For Full-term Newborn Skin

Huggies Natural Care® Extra Sensitive Wipes



For Premature and Fragile Skin

1. Neonatal Skin Care 3rd Edition: Evidence Based Clinical Practice Guideline, AWHONN, Washington, D.C. 2013.

Huggies Natural Care® Extra Sensitive Wipes

Formulated specially for under-developed and fragile skin of preterm infants.



Huggies Natural Care® Extra Sensitive Wipes are the first wipes designed specifically for use on babies in the NICU.

With over 22 years of experience in infant wipes, we partnered with NICU nurses to understand their challenges in caring for fragile and delicate skin, designing a solution that addresses the unique skin care needs of premature infants.

Efficient for Caregivers

- 2x thicker than Pampers® Sensitive Wipes
- Absorbent, to quickly and effectively clean messes
- Flexible and conforming for ease of cleaning between skin folds

Better for Baby

- Mild water-based formula is safe for use on compromised skin, hands, and face

Optimized Package Design

- Reclosable plastic lid with large reach-in opening for easy one handed dispensing

Gentle Ingredients

- No alcohol, fragrances, or dyes
- No parabens, Methylisothiazolinone (MI) based preservatives, or Phenoxyethanol

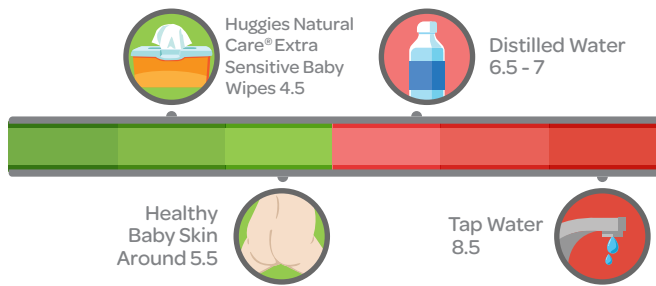
Huggies Natural Care® Extra Sensitive Baby Wipes are preferred by NICU nurses over Pampers® Sensitive Wipes.

Delivering a **specially formulated wipe** to help maintain **skin integrity**

Maintains Healthy Skin pH

Within a few days of birth infant skin undergoes an acidification process in which skin pH drops to around 5.5.^{1,2,3} This acidic attribute of skin is vital to:

- Support the maturation of the epidermis (outer layer) of skin
- Protect from pathogens
- Help neutralize enzymes in feces that can irritate skin^{4,5}



Water alone is not pH balanced to infant skin. When used for cleansing, water raises skin pH over time and weakens skin's natural protective barrier leading to increased risk of skin breakdown.⁴

- Because the pH of water is not acidic like skin, fecal enzymes are not effectively neutralized
- Huggies Natural Care® Extra Sensitive wipes are pH balanced to support the natural protective acidic pH of skin



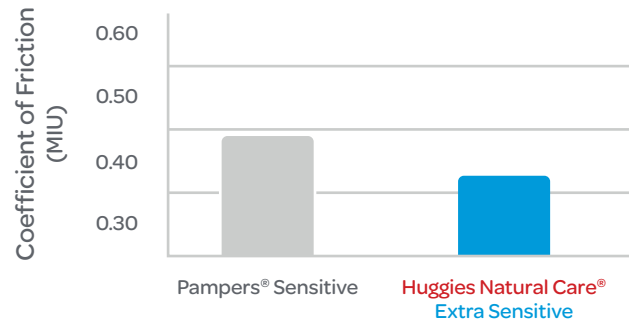
Better Glide

Huggies Natural Care® Extra Sensitive Wipes contain emollients that reduce friction between the wipe and the skin. This leads to less mechanical skin irritation and allows the wipe to glide gently across skin.

- Better glide across delicate, premature skin than Pampers® Sensitive Wipes
- No excessive wetness left behind, which contributes to skin breakdown

Level of Friction on Skin

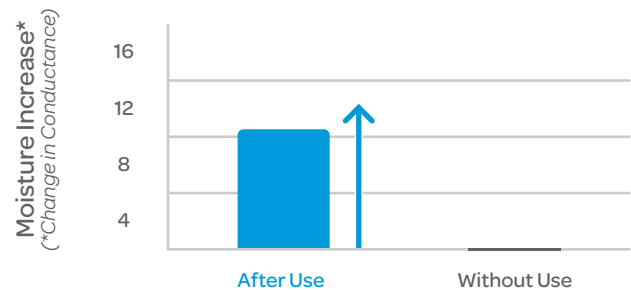
A **lower** MIU Value indicates more glide, **less friction**.
A **higher** MIU Value indicates less glide, more friction.



Hydrates and Moisturizes Skin

Huggies Natural Care® Extra Sensitive wipes offer a lotion-based cleansing system that helps hydrate the skin with ingredients that moisturize.

Moisturization of Huggies Natural Care® Extra Sensitive Wipes



Higher measures of conductance indicate higher levels of moisture content of the skin.

1. Oranges, T., Dini, V. & Romanelli, M. Skin Physiology of the Neonate and Infant: Clinical Implications. *Adv. wound care* 4, 587-595 (2015).
 2. Visscher, M. & Narendran, V. The Ontogeny of Skin. *Adv. Wound Care* 3, 291-303 (2014).
 3. Kanti, V. et al. Postnatal Maturation of Skin Barrier Function in Premature Infants. *Skin Pharmacol. Physiol.* 27, 234-241 (2014).
 4. Visscher, M. et al. Skin care in the NICU patient: effects of wipes versus cloth and water on stratum corneum integrity. *Neonatology* 96, 226-34 (2009).
 5. Buckingham, K. W. & Berg, R. W. Etiologic factors in diaper dermatitis: the role of feces. *Pediatr. Dermatol.* 3, 107-12 (1986).

Huggies Natural Care® Wipes

Formulated for full-term infant skin that is well developed at birth.



Huggies Natural Care® Wipes are ideal for newborn skin

Full-term infants have fully developed skin (see Fig. 2 page 2) and experts indicate that regular cleaning of diapered skin without causing mechanical friction or chemical induced stress is essential to maintaining skin health.^{1,2}

Our simplest formulas ever, Huggies Natural Care® Wipes are designed with three key components to help support gentle care for newborn skin.

Gentle Formulation

- Formulated with a pH similar to infant skin to help maintain the natural skin barrier
- Water-based formula - 99% purified water
- Gentle clean to effectively remove messes
- Aloe and Vitamin E as added emollients
- Hypoallergenic
- Fragrance free and alcohol free



Triple Clean layers

Our proprietary **basesheet** cloth is designed to absorb, lock-in and retain waste for efficient cleaning.



POP-UP® dispensing

Optimized large oval package opening for **safe**, easy dispensing.

1. Neonatal Skin Care 3rd Edition: Evidence Based Clinical Practice Guideline, AWHONN, Washington, D.C. 2013.
2. Blume-Peytavi, U. et al. Recommendations from a European Roundtable Meeting on Best Practice Healthy Infant Skin Care. *Pediatr. Dermatol.* 33, 311-21 (2016)



Huggies is committed to ensuring that our baby wipe products support evidence-based practices for neonatal skin care.

Huggies Natural Care® Wipes are specially formulated for the unique needs of both the preterm and full-term infant skin within the hospital environment.



Huggies Natural Care® Extra Sensitive Wipes for premature and fragile newborn skin
Product Code - 43282 | 24 count package, 16 count case

Ingredient	Benefit
Purified water	Aids in effective cleaning
Glycerin	A mild skin moisturizer
Behenyl Alcohol, Glyceryl Stearate, Glyceryl Stearate Citrate, Disodium Ethylene Dicumamide PEG-15 Disulfate	Moisturizing lotion-based cleansing system
Xanthan Gum, Guar Gum and Propylene Glycol Alginate	Blended from ingredients commonly found in food, that allows the cleansing system to be the optimal consistency
Dimethicone, Ethylhexyl Stearate, Caprylyl Glycol, Purified Water	Skin emollients that allow wipe to gently glide across skin
Malic Acid and Sodium Citrate	Maintains product pH and helps keep the sheet white
Sodium Benzoate	To keep wipes fresh and prevent microbial contamination

Choosing the right wipe is important to maintaining skin health.

Huggies Natural Care® Wipes for full-term newborn skin
Product code – 42511 | 32 count package, 16 count case



Ingredient	Benefit
Purified water	Aids in effective cleaning
Coco-Glucoside	A mild skin cleanser
Butoxy PEG-4 PG-Amodimethicone, Caprylyl Glycol	Conditions skin and helps the wipe glide across the skin
Malic Acid	Maintains product pH
Sodium Citrate	Maintains product pH and helps keep the sheet white
Sodium Benzoate	To keep wipes fresh and prevent microbial contamination
Aloe Barbadenis Leaf Juice, Tocopheryl Acetate (Vitamin E)	Aloe and Vitamin E as added emollients



Questions? Please contact your local Huggies® sales representative:
800-241-3146, or email huggieshospital@kcc.com, or visit huggieshealthcare.com



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