

**WaterWipes**<sup>®</sup>  
THE WORLD'S PUREST BABY WIPES

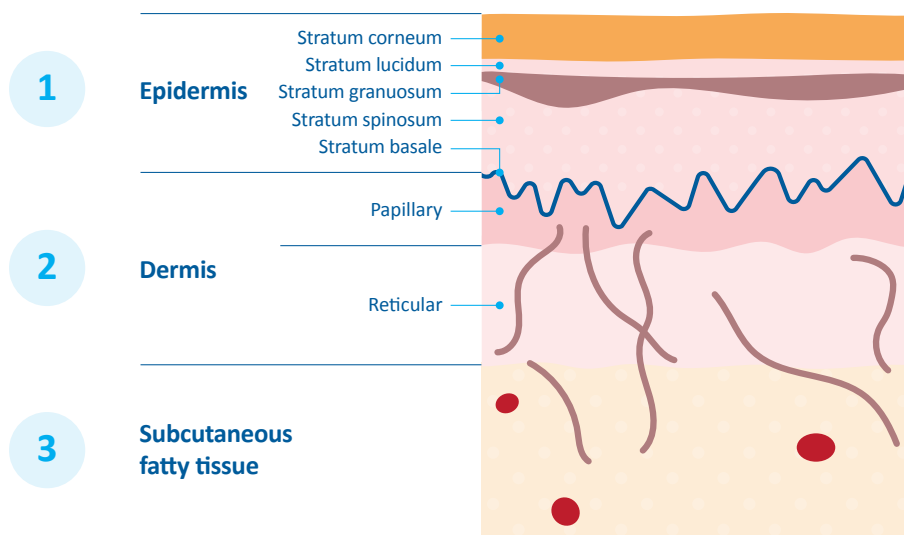
## Information for healthcare professionals



# Understanding the unique properties of baby and infant skin

The skin is the body's largest organ and has three primary functions: protection, regulation and sensation.

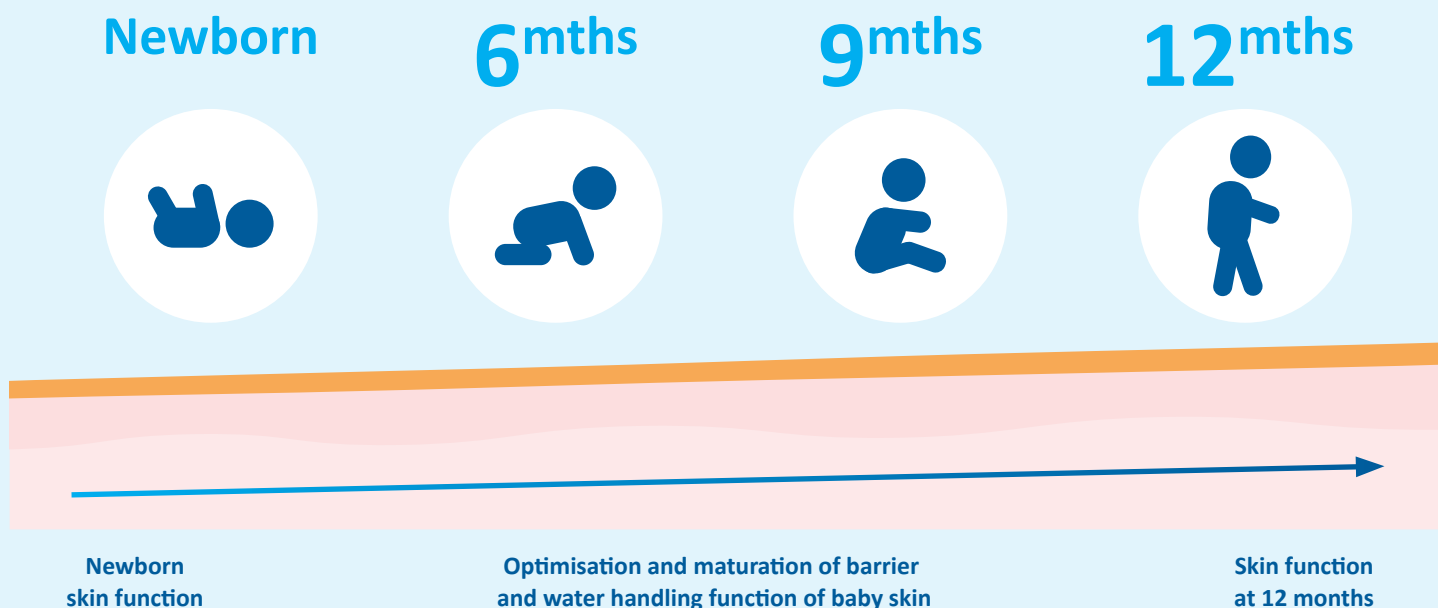
It consists of three main layers:



The epidermis is further divided into the stratum corneum, stratum lucidum, stratum granulosum, stratum spinosum, and stratum basale. The stratum corneum is the outermost layer and acts as a protective barrier against microorganisms, chemicals and allergens. Significant clinical evidence stresses the importance of the stratum corneum and its barrier function for babies, especially neonates.<sup>1</sup>

## Development of baby skin during the first year<sup>1</sup>

The properties that make baby skin unique persist through the first 12 months.



Throughout the first 12 months of a baby's life skin continues to develop. The barrier function of the epidermis and stratum corneum gradually increases.

# Baby skin is structurally unique

The epidermis in babies is 20% thinner and the stratum corneum is 30% thinner,<sup>2</sup> which increases susceptibility to permeability and dryness.<sup>3</sup> From birth, barrier function and the water handling properties of the stratum corneum are continually optimising and the properties that make infant skin unique are thought to persist at least through the first 12 months of life.<sup>1</sup>

Baby skin is also less firmly attached than mature skin and has a higher propensity to increased trans-epidermal water loss [TEWL] and reduced stratum corneum hydration, reflecting a less effective skin barrier function.<sup>3,4,5</sup> Also because the ratio between baby body surface to baby body weight is higher, topical agents are more readily absorbed and can therefore have a more pronounced effect on baby skin.<sup>3</sup> All these factors combine to make baby and infant skin a less effective barrier and as a result it is far more delicate and vulnerable, requiring special care and protection. It is therefore important to select the correct types of product to use on baby skin.



## Preventing nappy rash

- Nappy rash is an irritant contact dermatitis characterised by a red, sore rash in the nappy area.
- Very common condition, with up to 50% of children affected at least once.<sup>6</sup>
- No recognised scale exists to assess severity; in its mildest form, there is a reddening of the skin in the nappy area, which, if left untreated, can quickly progress to painful exudative or ulcerated lesions.
- No single irritant that causes nappy rash, prolonged contact of the skin with urine and faeces in the nappy is considered the most important factor.<sup>7</sup>
- Therefore crucial to ensure nappies are changed regularly and the area is thoroughly cleaned.



## Preserving the barrier function of baby skin

- While there is limited, high-level, long-term clinical evidence available on the most effective and safe cleansing of healthy, full-term newborns and infants,<sup>8,9</sup> it is recommended that any topical agents used for bathing and cleansing, should not adversely alter or affect the skin barrier.<sup>4</sup>
- When considering products for use on neonate or infant skin, the aim should be to use those which help preserve the skin barrier function of the stratum corneum.<sup>4</sup> Ideally they should be pH neutral (pH 5.5 - 7), contain only a mild preservative, alcohol-free, fragrance-free.<sup>8</sup>



## Help Prevent Eczema

- The need to optimise baby skin's barrier function is necessary, in part to help prevent eczema.<sup>3</sup>
- While genetic predisposition plays a part, environmental factors such as the use of topically applied natural or commercial skin care products are also linked to development of the condition.<sup>10, 11, 12</sup>

# Introducing the world's purest baby wipes

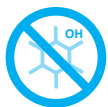


WaterWipes have been specifically developed to be as mild and pure as cotton wool and water, while offering the convenience of a wipe. They provide safe cleansing for the most delicate newborn skin and are so gentle they can also be used on premature babies.

## What makes WaterWipes different?



WaterWipes are the purest baby wipes in the world. They are made using 99.9% purified water and a drop of Grapefruit Seed Extract (GSE). GSE has naturally occurring antimicrobial properties which help to keep the wipes fresh once opened, as well as acting as a gentle skin cleanser and conditioner.<sup>13</sup>



They are alcohol and fragrance free to help reduce the risk of drying out the skin and the potential development of contact or allergic dermatitis.<sup>14</sup>



WaterWipes are suitable for use on even the most sensitive skin and can be used on babies from birth.



They are the only baby wipe to have secured numerous accreditations and endorsements from global skin and allergy associations including:

- ◆ Allergy UK
- ◆ The National Eczema Association of America (NEA)
- ◆ The French Association for the Prevention of Allergies (Association Française pour la Prévention des Allergies - AFPRAL)
- ◆ The Eczema Association of Australasia (EAA)

## Recommended by professionals



WaterWipes are highly recommended by midwives and other healthcare professionals and have become the preferred wipe for many Neonatal Intensive Care Units throughout Ireland, the UK, the US, Australia and New Zealand.<sup>15</sup>

97% of midwives surveyed in Ireland recommend the use of WaterWipes.<sup>16</sup>

# Use and Storage of WaterWipes

- WaterWipes should be stored in a cool, dry place with the tab tightly re-sealed after each use. If being stored for any extended length of time prior to use, the WaterWipes pack should be stored 'upside down' i.e. label side down.
- Our wipes do not contain added chemical thickeners or binding agents that bind the liquid to the wipes as in some other baby wipe brands. The water can sometimes migrate towards the bottom of the pack depending on handling and transportation.
- Storing the packs upside down until the pack is opened can help ensure that each wipe contains correct hydration for use.
- It is recommended that WaterWipes are not removed from their original pack and transferred to another container or wipes dispenser.
- It is recommended that WaterWipes are used within 4 weeks after the pack is opened.



# Our story



WaterWipes, the world's purest baby wipes were developed by Edward McCloskey. As a new father, Edward was searching for a safer alternative to standard baby wipes for his baby daughter, who suffered from sensitive skin and nappy rash. He wanted to create a product that was as mild and pure as using cotton wool and water, but as convenient as a wipe and safe for the most delicate skin. Following many years of extensive scientific research and testing, WaterWipes were launched in Europe 2010 by Edward's company, Irish Breeze, a well-established skin care company.



Allergy UK



AFPRAL



National Eczema Association



The Eczema Association of Australasia

If you'd like more information on WaterWipes,  
please email us at [info@waterwipes.com](mailto:info@waterwipes.com)

## REFERENCES

- Nikolovski, J., Stamatias, G., Kollias, N., Wiegand, B., 2008. Barrier function and waterholding and transport properties of infant stratum corneum are different from adult and continue to develop through the first year of life. *Journal of Investigative Dermatology* 128, 1728–1736. Available at: <https://www.sciencedirect.com/science/article/pii/S0022202X15339439> Last accessed May 2018.
- Stamatias, G., Nikolovski, J., Luedtke, M., et al., 2010. Infant skin microstructure assessed in vivo differs from adult skin in organization and at the cellular level. *Pediatric Dermatology* 27, 125–131 Available at: <https://www.ncbi.nlm.nih.gov/pubmed/19804498> Last accessed: 2 May 2018
- Cooke, A, Bedwell, C, Campbell, M, et al. Skin care for healthy babies at term: A systematic review of the evidence. *Midwifery* 56 (2018) 29–43 Available at: [https://www.midwiferyjournal.com/article/S0266-6138\(17\)30354-6/pdf](https://www.midwiferyjournal.com/article/S0266-6138(17)30354-6/pdf) Last accessed: 2 May 2018.
- Oranges, T., Dini, V., Romanelli, M., Skin Physiology of the Neonate and Infant: Clinical Implications. *Advances in Wound Care* 2015; 4(10): 587-595. Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4593874/>. Last accessed 19 October 2019.
- Nakagawa, N., Sakai, S., Matsumoto, M., et al., 2004. Relationship between NMF (Lactate and Potassium) content and the physical properties of the stratum corneum in healthy subjects. *Journal of Investigative Dermatology* 122, 755–763. Available at: [https://ac.els-cdn.com/S0022202X15306928/1-s2.0-S0022202X15306928-main.pdf?\\_tid=168c5a11-b5f6-4edd-9d55-a4f93c51d0b8&acdnat=1525272628\\_e84d3f2757de46454b328744997e139c](https://ac.els-cdn.com/S0022202X15306928/1-s2.0-S0022202X15306928-main.pdf?_tid=168c5a11-b5f6-4edd-9d55-a4f93c51d0b8&acdnat=1525272628_e84d3f2757de46454b328744997e139c) Last accessed: 2 May 2018
- Aherton D. Mills K. What can be done to keep babies skin healthy? *RCM Midwives* 2004; 7 : 288–290
- Sznurkowska, K., Liberek, A., Cieloch, K.B., Czernicka, O., Bony, R., Kurka, P., Lenz, H. Irritant Diaper Dermatitis Supplement Part 2: Evaluation of a New Cosmetic Topical Formulation in the Management of Irritant Diaper Dermatitis In Infants. Available at <https://selfcarejournal.com/article/irritant-diaper-dermatitis-supplement-part-2-evaluation-of-a-new-cosmetic-topical-formulation-in-the-management-of-irritant-diaper-dermatitis-in-infants/>. Last Accessed 19 October 2018.
- Fernandes J.D., Machado, M.C.R., Oliveira, Z.N.P. Children and newborn skin care and prevention. *Anais Brasileiros de Dermatologia*. Available at [http://www.scielo.br/scielo.php?pid=S0365-05962011000100014&script=sci\\_arttext&tlng=en](http://www.scielo.br/scielo.php?pid=S0365-05962011000100014&script=sci_arttext&tlng=en). Last accessed 19 October 2018.
- Blume-Peytavi, U., Hauser, M., Stamatias GN., et al., 2011. Skin Care Practices for Newborns and Infants: Review of the Clinical Evidence for Best Practices Available at: <https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1525-1470.2011.01594.x> Last accessed: 2 May 2018
- Danby, S., Cork, M., 2011. The skin barrier in atopic dermatitis. In: Irvine, A., Hoeger, P., Yan, A. (Eds.), *Textbook of Pediatric Dermatology*. Blackwell Publishing, Oxford.
- Danby, S., Al-Enezi, T., Sultan, A., Chittock, J., Kennedy, K., Cork, M., 2011. The effect of aqueous cream BP on the skin barrier in volunteers with a previous history of atopic dermatitis. *British Journal of Dermatology* 165, 329–334.
- Danby, S., Al Enezi, T., Sultan, A., Lavender, T., Chittock, J., Brown, K., Cork, M., 2013. Effect of Olive and Sunflower Seed Oil on the Adult Skin Barrier: implications for Neonatal Skin Care. *Pediatric Dermatology* 30, 42–50.
- Von Woedtke, T., Schlüter, B., Pfliegel P., Lindequist, U., Jülich, WD., 1999. Aspects of the antimicrobial efficacy of grapefruit seed extract and its relation to preservative substances contained. *Pharmazie*. Jun;54(6):452-6. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/10399191> Last accessed: 4 September 2018.
- Buttaravoli, P., Leffler, SM., 2012. Allergic Contact Dermatitis. *Minor Emergencies (Third Edition)* 639-644. Available at: <https://doi.org/10.1016/B978-0-323-07909-9.00160-4> Last accessed: 4 September 2018.
- WaterWipes Data on File.
- Spark research study, 102 *Midwives*, October – November 2014.
- WaterWipes Data on File 2.