

9. Infant and Family Centred Developmental Care Toolkit: Protecting Skin

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For use in:

EoE Neonatal Units
Guidance specific to the care of neonatal patients.

Used by: This guideline is intended for all healthcare professionals and staff working within the neonatal unit. The principles outlined should also be shared with parents, supporting a collaborative approach to caring for premature or unwell infants.


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Introduction

Protecting the skin involves many important aspects. Functions of the skin include regulating body temperature, fat storage and insulation, maintaining fluid and electrolyte balance, barrier protection against penetration and absorption of bacteria and toxins. The skin also provides sensory functions such as detecting touch, pressure, and pain, and transmitting sensory information to the brain. Each of these functions may influence an infant's neurodevelopment¹. During skin care and routine procedures, the infant's individual needs are considered to ensure skin protection, reduce the risk of injury, prevent infections, and enhance overall comfort for the baby¹.

Background

The skin of a premature infant is different to that of a full-term infant. A premature infant's skin is extremely fragile and not yet fully developed, making it vulnerable to excessive water loss, electrolyte disturbances, difficulty maintaining body temperature, greater permeability, increased risk of skin injury, slower barrier development, and a higher chance of infection¹. Infants in the neonatal unit are at risk of skin problems because of their immature skin, poor blood flow, fluid retention, underlying medical conditions as well as the use of necessary medical equipment such as dressings, tapes, adhesives, IV lines & respiratory devices such as CPAP masks or nasal prongs¹. Procedures and care practices can impact skin integrity in a positive or negative way². Individualised skin protection practices can have a number of benefits for infants on the neonatal unit:

Short term benefits³

- Protected skin barrier
- Reduced risk of skin damage
- Reduced risk of infections
- Improved comfort and reduced physiologic instability and stress responses
- Improved parent-infant bonding when skin care is performed by parents
- Reduced stress for parents

Long term benefits³

- Reduced potential for future skin sensitisation
- Improved development of the skin barrier

Partnering with Families

There is overwhelming evidence which supports the understanding that parents' presence on the Neonatal unit and partnership in the care of their baby is an essential component of delivering quality developmental care and improving developmental outcomes for infants.^{1,3} Parents should be educated, coached and mentored on the principles of protecting their baby's skin and they should have an actively engaged in the care of their baby's skin. Please refer to EoE Neonatal ODN Partnering with families ([Guidelines - East of England](#))

Recommendations to help protect skin^{1,3}
Facilitate early and frequent skin to skin to promote development of infant microbiome ² (refer to EoE skin to skin guideline)
Regularly assess and evaluate the infant's skin condition and potential pressure areas
Use a reliable and valid skin assessment tool
Make sure Parents are informed about protecting their infant's skin and engaged in the skin care of their infant.
Provide adequate humidity (refer to EoE ODN Management of a baby requiring humidity guideline)
Minimise use of adhesives and use caution when removing them.
Use skin protective products
Record baby's body and head position on nursing chart to ensure balance of positions over each 24 hour period. (refer to Positioning & Handling guideline)
Provide appropriate positioning support and position changes to prevent skin breakdown
Check infant's pressure areas, on a change of position, to note any changes in skin integrity. Follow your unit protocol as appropriate. (Refer to EoE ODN skin integrity Guideline)
Be aware of any medical equipment in the cot/incubator that may cause marks/pressure areas on infant's skin

The East of England Neonatal Network has guidelines which also support optimal protection of skin and should be referred to in addition to this document.

The guidelines can be found on the East of England Neonatal ODN website.

- Skin Integrity [HERE](#)
- Management of a baby requiring humidity [HERE](#)
- Partnering with families ([Guidelines - East of England](#))
- Positioning & Handling ([Guidelines - East of England](#))
- Skin to Skin ([Guidelines - East of England](#))

References

1	Altimier, L & Phillips, R (2016)	The Neonatal Integrative Developmental Care Model: Advanced Clinical Applications of the Seven Core Measures for Neuroprotective Family-Centered Developmental Care. <i>Newborn and Infant Nursing Reviews</i> 16, 230-244. (PDF) The Neonatal Integrative Developmental Care Model: Advanced Clinical Applications of the Seven Core Measures for Neuroprotective Family-Centered Developmental Care
2	Kenner C., and McGrath J.M. (2023)	A Guide for Health Professionals (3 rd Ed) St Louis Elsevier
3	EFCNI, Silva E, Oude-Reimer M et al.,	European Standards of Care for Newborn Health: Skin care. 2018



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