

NEONATOLOGY  
Accessories



neoHELP™

Neonatal Heat Loss  
Prevention Bag

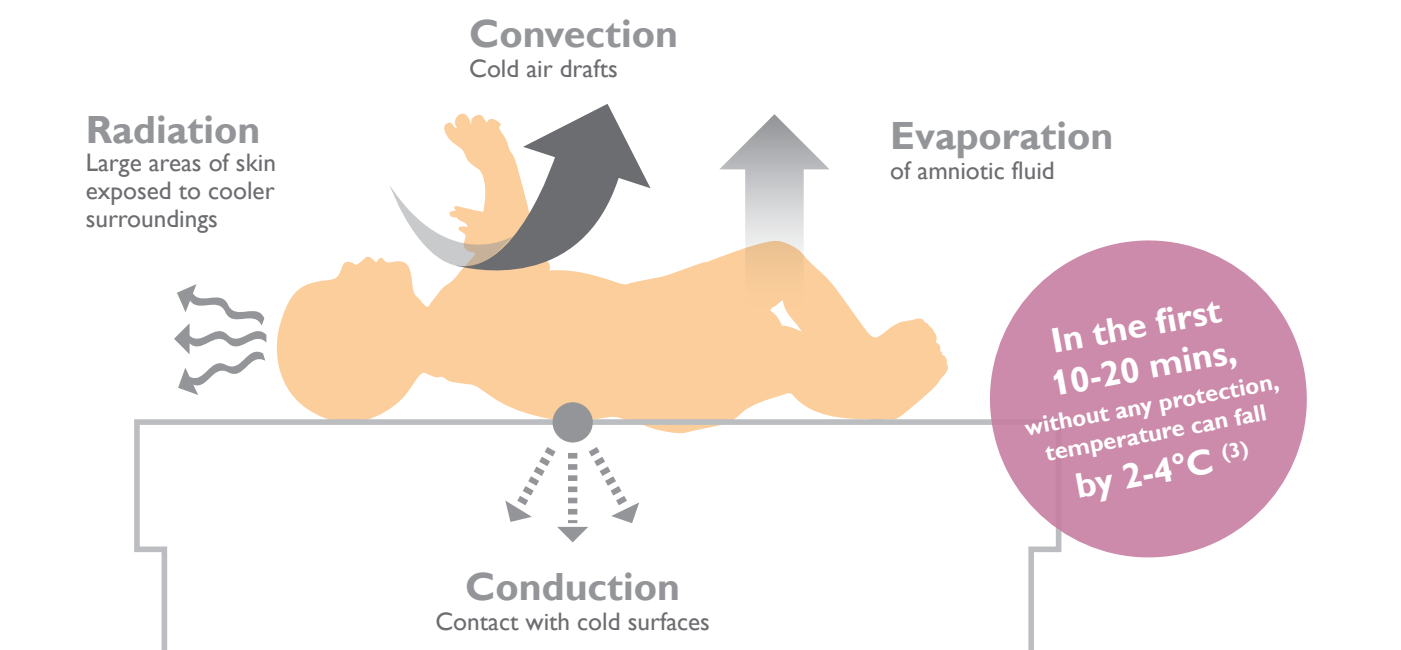
## Neonatal hypothermia: a world-wide issue

Hypothermia is an **important factor** in **morbidity** and **mortality** of all birthweights and gestational ages, and **particularly for vulnerable preterm infants** <sup>(1)</sup>.

Incidence of hypothermia on admission in the NICU from the delivery room is <sup>(2)</sup>:

- ≥ 56% for infants < 750g
- ≥ 25% for infants ≤ 2500g

### 1 Environmental factors



### 2 Physical characteristics of the infant <sup>(4,5)</sup>

- Unbalanced skin surface to weight ratio
- No or low capacity to generate heat (Brown Adipose Tissue)
- Inadequate stores of subcutaneous (insulating) fat
- Immature epidermal barrier

## Consequences of Neonatal hypothermia <sup>(1,5)</sup>

Respiratory distress  
Hypoxia  
Metabolic acidosis  
Hypoglycemia  
Coagulation defects

Intraventricular hemorrhage  
Brain damage  
Infection / Septicaemia  
Death

**For every 1°C decrease <sup>(5)</sup>:**

- sepsis increases by 11%
- risk of death increases by 28%

## neohelp™, polyethylene occlusive bag to prevent heat loss

neohelp™ is a sterile bag to swaddle the baby immediately after birth (before resuscitation).



### Adjustable hood

- Decreases heat loss by radiation
- More efficient than stockinette cap, which allows air passage through the textile
- Perfectly adjustable to the baby's head



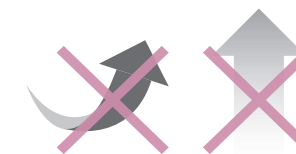
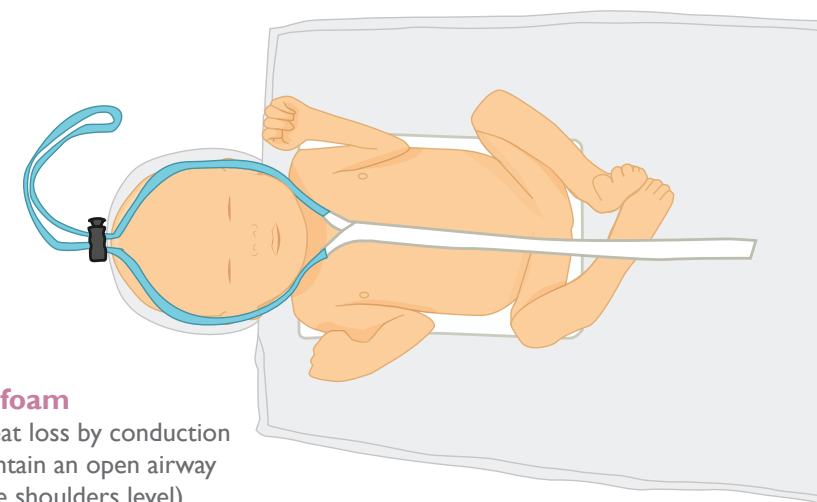
### Double layer of Polyethylene

- Decreases heat loss by convection and evaporation
- Generates greenhouse effect
- Allows perfect skin contact due to the thin inner layer
- Creates a barrier against drafts
- Allows passage of radiant heat from the warmer <sup>(6)</sup>
- Transparent, silent and soft material compliant with ISO 10993-1



### Pre-shaped foam

- Decreases heat loss by conduction
- Helps to maintain an open airway (by raising the shoulders level)
- Stabilises the baby's position
- Facilitates carrying of the baby
- Provides comfort to the baby



### Central opening

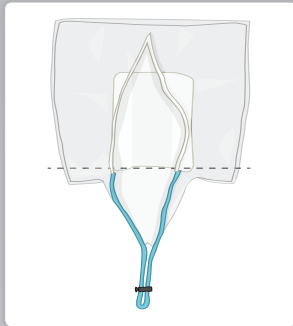
- Hermetic closure that ensures heat conservation
- Easy and quick placement of the baby
- Full access to the baby's body
- Designed for easy placement of monitoring equipment, IV and umbilical catheters

**According to UNICEF,** such interventions can help reduce neonatal mortality or morbidity by 18-42%<sup>(6)</sup>

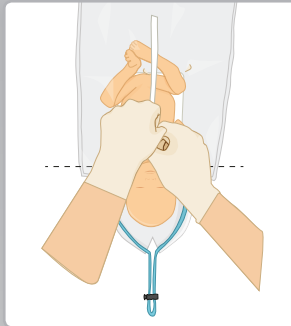
### Recommendations <sup>(1,5,7,9)</sup>

- ✓ Any additional intervention within 10 minutes after birth in the delivery suite may be beneficial.
- ✓ Occlusive skin wraps covering the baby's head and body are most beneficial for infants < 1 500 g and < 28 weeks of gestation.
- ✓ The transport incubator used to limit heat loss can be cumbersome and difficult to obtain. It may be «replaced» by a stockinette cap and a transparent polyethylene bag wrapping whilst the baby is still wet. This greatly reduces the risk of hypothermia.
- ✓ The transparency of bags makes it easier for caregivers to observe and manage the infant with minimal disruption of the wrap.

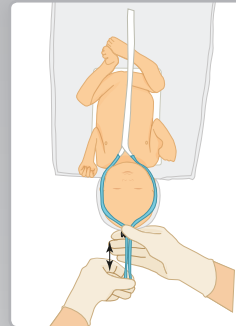
## How to use neohelp™



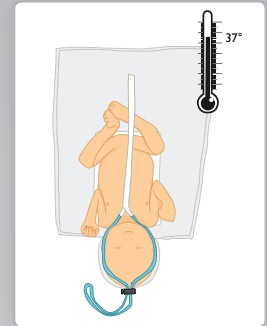
**1** Lay neohelp™ out flat on the surface under the radiant warmer



**2** Place the infant in neohelp™ without drying. The shoulders should be aligned with the edge of the foam.  
**3** Close hermetically neohelp™ with the Velcro fastener.



**4** Adjust the hood to the head of infant. Do not cover the airways.



**5** The infant should be kept wrapped until NICU admission and temperature checked<sup>(8)</sup>.

## Indications for use & ordering information

Designation	Indication	Code	Quantity
neohelp™ <b>SMALL &lt; 1KG</b> L. 38 x W. 30 cm	<b>Maternity - Level III</b>	37.09.14	10/box
neohelp™ <b>MEDIUM 1KG – 2.5KG</b> L. 44 x W. 38 cm	<b>Maternity - Level I &amp; II</b>	37.09.15	10/box
neohelp™ <b>LARGE &gt; 2.5KG</b> L. 50 x W. 38 cm	<b>Maternity - Level I &amp; II</b> <b>Emergency</b>	37.09.16	10/box

## References

- 1 The Cochrane Collaboration. Interventions to prevent hypothermia at birth in preterm and/or low birthweight infants (review). 2010.
- 2 DR Bhatt, R.White and al. Transitional hypothermia in preterm newborns. Journal of Perinatology (2007)
- 3 World Health Organization (WHO). Thermal protection of the newborn: a practical guide 1997.
- 4 B. Mathew and al. Vinyl Bags prevent hypothermia at Birth in Preterm Infants. 2006.
- 5 T. Cordaro and al. Hypothermia and occlusive skin wrap in the low birth weight premature infant. NAINR. 2012;12(2):78-85
- 6 W.WMV, Mori R. Interventions to prevent hypothermia at birth in preterm and/or low birth weight infant. RHL.
- 7 WHO. Recommendations for management of common childhood conditions. 2012.
- 8 American Academy of Pediatrics. Neonatal Resuscitation: 2010 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with treatment recommendations.
- 9 J.F. Diependaele and A. Fily - Management of a newborn baby - 51<sup>st</sup> congress of French Society of Anesthesia and Intensive care - 2009