

Thames Valley & Wessex Operational Delivery Networks (Hosted by University Hospital Southampton NHS Foundation Trust)

Developmental Care - Positive Touch Guidelines

Description	Network clinical guidelin	leline		
Target audience	Thames Valley and Wessex ODN Neonatal Network			
Related documents / policies	Skin to Skin Guideline (2022 <u>Developmental Care - Skin to Skin Guidelines)</u> .			
Author(s)	Amanda Clifford, Occupational Therapy Lead, Thames Valley & Wessex Neonatal ODN			
Policy sponsor				
Is there any non- compliance with NICE guidance?	No			
First Consultation	Thames Valley & Wessex ODN AHP Lead group			
Second Consultation	Thames Valley & Wessex Neonatal ODN Guideline Group			
Approval committee		Approval date		
TVW Neonatal ODN Governance Group				
TVW ODN reference	Version	Publication date	Next review due	
	7	January 2023	January 2026	

Version control 1

Date	Consultation / Comments	Version created	Page	Key changes
12/06/2020 29/06/2020 15/01/2021	F Lawson, J Hemmings, C Pugh, S Davidson, K Brown, V Puddy, S Potter, J Thorne, K Rutherford, M Drewett, N Ringrose, L Anderson, H Wells, C Nurmahi, L Smith, A Pearson	0.4		New guideline
21/05/21	Jonathan Hall & Andy Fox	0.5		Clarity on who can check and how to draw up. Uploaded into new format.
25/09/2022	A.Clifford & Z. Gordon	0.6		Update guideline and upload to new format

_	Index	
1	Version control	1
2	Index	2
3	Executive Summary / Introduction	2
4	Scope and purpose	3
5	Definitions	3
6	Details of guideline to be followed	4
7	Roles and responsibilities	9
8	Communication and training plans	9
9	Process for monitoring compliance	9
10	Document review	9
11	References	10

3 Executive Summary / Introduction

Touch is the foundation of development for communication, learning, regulation, and social interaction/bonding.

Infants cared for on a neonatal unit receive a significant number of procedural and painful touch experiences that are not comforting or supportive. Adverse and inappropriate sensory touch experiences in the neonatal period directly impact on an infant's mental health, brain development, sensory processing development and longer term neurodevelopmental outcomes.

To counteract this experience for the developing infant, care should include the considerate use of 'positive touch' that aims to give babies the experience of touch that is not for a clinical purpose, but given tenderly, lovingly and gently and that is in direct responsive to the infant's behavioural cues.

Parents should be supported and educated to provide positive touch for their baby. They are the most consistent and loving people in their babies lives and should be providing most of the positive touch on the neonatal unit, if they are able and willing to do so.

The type of touch offered to each infant should be individualised, based on the infant's neurobehavioural maturation and their physiological and medical condition.

There are various methods of providing positive touch to infants in the neonatal unit including:

- Still touch
- Comfort holds
- Cuddles
- Skin to Skin care (refer to separate Skin to Skin Guideline)
- Positive oral experiences
- Neonatal Massage

4 Scope and purpose

This guideline has been produced to support staff in ensuring infants receive positive touch to support their neurodevelopment. Recommendations are based on research findings and/or currently accepted best practice. For accessibility, the guidelines have been collated under distinct subheadings; however, the reader is advised to read the guidelines in full and to seek the advice and support of more senior or experienced nursing or AHP colleagues, in the practice setting.

The guideline applies to all neonatal units covered by Thames Valley and Wessex Operational Delivery Neonatal Networks. This includes the following hospitals:

Thames Valley				
TRUST	Hospital	Designation		
Oxford University Hospitals NHS Foundation Trust	- John Radcliffe Hospital, Oxford	NICU		
Buckinghamshire Healthcare NHS Trust	- Stoke Mandeville Hospital, Aylesbury	LNU		
Frimley Health NHS Foundation Trust	- Wexham Park Hospital, Slough	LNU		
Milton Keynes University Hospital NHS Foundation Trust	- Milton Keynes General Hospital	LNU		
Royal Berkshire NHS Foundation Trust	- Reading	LNU		

Wessex				
TRUST	Hospital	Designation		
University Hospital Southampton NHS Foundation Trust	- Princess Anne Hospital	NICU		
Portsmouth Hospitals University NHS Trust	- Queen Alexandra Hospital	NICU		
Dorset County Hospital NHS Foundation Trust	- Dorset County Hospital, Dorchester	SCU		
Hampshire Hospitals NHS Foundation Trust	- Basingstoke and North Hampshire Hospital	LNU		
Hampshire Hospitals NHS Foundation Trust	- Royal Hampshire County Hospital, Winchester	LNU		
Isle of Wight NHS Trust	- St Mary's Hospital	SCU		
University Hospitals Dorset NHS Foundation Trust	- Poole Hospital	LNU		
Salisbury NHS Foundation Trust	- Salisbury District Hospital	LNU		
University Hospitals Sussex NHS Foundation Trust	- St Richard's Hospital, Chichester	SCU		

5 Definitions

- Neonate Up until 44 weeks corrected
- NNU Neonatal Unit
- NICU Neonatal Intensive Care Unit
- Non-Pharmacological therapies that do not involve drugs
- Preterm An infant born before 37 weeks' gestation
- TVW Thames Valley and Wessex
- ODN Operational Delivery Network
- ITU Intensive Care Unit
- LNU Local Neonatal Unit
- SCU Special Care Unit

6 Details of guideline to be followed

6.1 Background

Touch is the foundation of development for communication, learning, regulation, and social interaction/bonding. Increasing awareness from researchers and clinicians suggests that touch is at the very foundation of infant experience and mental health and a major factor in formation of the infant – parent bond.

However, much of the infant's experience of touch in the neonatal unit is inconsistent, unpredictable, variable, or painful in nature, stimulating sympathetic nervous system stress responses. For example, light excitatory touch, procedural touch when being turned or medically examined or painful touch when siting intravenous lines or taking blood specimens.

It is understood that these repeated experiences of negative touch and pain or stress are disorganising, uncomfortable and unpleasant for the babies at the time. These experiences have also been shown to result in longer term consequences such as poor early neurodevelopment, permanent changes in brain structure and function, sensory processing disorders and altered developmental outcomes.

Positive touch in response to the infant's cues is known to be beneficial to help the infant to settle and calm. It encourages self–regulation / organisation and promotes neurological stability. Consistent and considerate use of 'positive touch' on the neonatal units, aims to give the infant an experience of touch that is not for a clinical purpose, but given but given tenderly in response to their behavioural cues and supportive of their need for sleep and interaction. The type of touch offered to each infant should be individualised, based on the infant's neurobehavioural maturation and their physiological and medical condition.

6.2 Parents as primary comfort caregivers

It is a priority to provide support and education for parents to enable them to have positive touch experiences between them and their baby. They are the most consistent and loving people in their babies lives and should be providing most of the positive touch on the neonatal unit if they are able and willing to do so.

Parents can be supported to provide positive touch by:

- Explaining the indications and rationale for positive touch to parents/carers
- Helping families understand the benefits to both themselves and their baby including:
 - Co-regulation between both baby and parent
 - Support for calm and rest
 - Recovery from stress or pain
 - o Promotion of the infant's physiological stability and organisation
 - Support for interaction between the parent and their baby.
- Supporting the parent in learning about hand hygiene necessary for touch experiences with the infant.
- Assisting parents in identifying the most appropriate type of touch for their baby. If a baby is not well enough for a particular type of touch, explain to the parents why this is not currently beneficial. Wherever possible offer an alternative (e.g. comfort hold instead of cuddle) so that the parents do not feel rejected by or barred from contact with their baby.
- Encourage the parent/carer to talk gently to their infant and to observe their behaviour and condition throughout, supported by the nurse caring for their infant.
- Offer parents the Bliss booklets 'Look at me, I'm talking to you' and 'Skin to skin with your baby'.
- Direct parents to the posters or local displays of information explaining skin to skin or comfort holds.

6.3 Responsive Caring and Positive Touch

The type of touch offered to each infant should be adapted according to the infant's stage of neurodevelopment, physiological and medical condition.

Positive touch experiences should always be in response to the infant's behavioural cues, and done with the infant rather than to them (refer to the Cue-led Care Guideline for more details).

A focus of this guideline is to outline four ways parents of infants on the neonatal unit can provide positive touch experiences with their infant. These are:

- 1. Still touch / Comfort holding / Cuddling
- 2. Skin to skin or Kangaroo care
- 3. Two person cares
- 4. Positive oral experiences
- 5. Neonatal massage

6.4 Practice Guidelines

6.4.1 General Care

It is not necessary to wear gloves to provide positive touch to the baby. Gloves used routinely in the neonatal unit are *non-sterile* nitrile gloves and should be worn if the staff member is to come into contact with a bodily fluid, non-intact skin, or mucus membrane. Hand decontamination with sound hand hygiene practice is considered the primary way to prevent transmission of infection between patients to staff, and skin to skin contact provides the baby with a more comforting touch experience.

Before giving any form of care and/ or touch experience for the infant, the **NIDCAP** '5-Step dialogue' can be followed to ensure they are approached and supported effectively throughout (refer to the Cueled Cares Guideline for more information)

1. Prepare

- wash and warm hands to match baby's temperature.
- Consider the environment as infants are more likely to feel uncomfortable with competing sensory inputs from a bright and loud environment. (Refer to Light and Sound Guidelines for further information).

2. <u>Touch Permission</u>

- introduce yourself to the baby, by speaking softly to make your presence known.
- Initiate touch using still hand/s on the infant over their body or cupped around their head
- 3. Tuning into the baby and pacing
 - observe the baby's behavioural cues, using a soft, slow voice to calm and settle.
- 4. Connecting to the baby
 - Giving the infant time to adjust and settle.
- 5. <u>Breaking contact at the conclusion of touch experience</u>
 - Withdraw hands very slowly, wait and watch.

(The Australasian NIDCAP Training Centre, 2018)

6.4.2 Examples of types of positive touch experiences

Still touch / comfort holds / cuddling

Still touch is a calming and organizing touch for the infant and can be used to support the infant to calm, or to initiate contact before cares or procedure.

- It includes holding the infants hand or a foot this touch offers a small yet predictable touch, making it easily tolerable for the extremely preterm or critically unwell baby.
- Still touch is used as a way of supporting an infant to sleep or settle, using a hand placed over a larger surface area of the infants body or cupped around their head for support.

Comfort holds are resting holds using the care's two hands.

They are placed around the infant to gently 'contain' their body, making them feel enclosed and secure.

- These holds are effective for non-pharmacological pain relief (refer to Pain and Stress Management guideline for details).
- See photos below for examples of comfort holds:





Cuddles are where the baby is cradled in a carer's arms. This is a 'normal' part of parenting, and something that parents should be encouraged and supported to do when the baby is well enough to tolerate transfers out of the incubator or cot.

- Cuddles provide a closeness between the infant and parent, where the baby is brought into the parents / carer's body for warmth and containment, allowing an opportunity for interaction between them.
- Cuddles are a good option for very fragile infants or for parent's who are building confidence in moving and holding their infant. Use of the nest to bring the infant out supports those infants who are not tolerating handling and transfers well, ensuring containment.
- Cuddles will not offer as many stabilizing benefits as kangaroo care but should always be encouraged if parents are unable to offer kangaroo care.
- When in cuddles infants should be covered for warmth and held close to the parent's body.
- Encourage parents to use their voice to talk to or sing and interact with their baby whilst observing cues to support early social connections through sound and touch input.
- Support parents to observe their infant's behavioural responses during the cuddle time to support sleep or interactions (refer to Cue-led Care Guideline for behavioural cues information)

Skin to skin / kangaroo care (refer to Skin to Skin Guideline for further details)

Skin to skin or kangaroo care, is when the baby (naked apart from nappy) is placed against the parent's bare chest. It has many benefits for the baby and the parent including autonomic stability, maintenance of thermoregulation, promotion of deep sleep and growth and co-regulation between the infant and parent. It also supports milk production, pre-feeding skills and parental emotional wellbeing.

- Skin to skin should be supported as soon as possible following birth, even if brief.

- It should be a part of the infant's daily care and offered to families daily for extended periods of time
- Discussions with the infant's medical team are encouraged when planning for skin to skin for an infant with complex medical and respiratory needs. They should not be automatically excluded from skin to skin.
- Each unit should have its own potential exclusion criteria that can be discussed following assessment of an individual infant's needs and stability for skin to skin.

These may include:

- o Extremely preterm infant in first 72hours of life.
- Presence of umbilical catheters
- o Immediate post-operative states requiring ventilation and muscle relaxation
- Significant breakdown of skin integrity/ extreme immaturity of skin
- Significant temperature instability
- Significant electrolyte imbalance- requiring the baby to remain within incubator and it's environmental humidity. (A baby being in environmental Humidity is NOT a contraindication in itself)
- Therapeutic Hypothermia / cooled
- o HFOV/ high PIP/ on NO/ FiO2 >0.75%
- o Baby deemed to be too unstable (e.g., multiple inotropes required).
- o Parents' unavailable or currently unsuitable (e.g recent alcohol/ drug intake.)

Note: In all these scenarios, discussion with the infant's medical team is recommended to assess the possibility of skin to skin.

Specific considerations:

- o Ensure Neopuff and suction are within reach.
- Consider staffing numbers before offering skin to skin for ventilated infants. One person must be dedicated to holding the ET tube for a safe transfer.
- If staff are not familiar or confident to transfer an infant out for skin to skin, they should seek support from an experienced staff member. Inexperience in itself is not a reason for refusing skin to skin.
- Umbilical lines arterial or venous are not a contraindication but need to be firmly secured.
- It may be possible for an infant who is being cooled post HIE to have a 'CoolCuddle' with their parent/carer - (refer to skin to skin guideline for details)

Positive Oral Experiences (refer to Non-Nutritive Sucking Guideline for further details)

- The infant in the neonatal unit may experience many negative touch experiences around the nose and mouth including intubation, NIV prongs, from NG tube insertion, and from unexpected touch during procedures.
- Infants on the neonatal unit are at greater risk of oral and feeding aversions later in development following negative touch experiences around the mouth during the neonatal period.
- In mouth cares for preterm infants, touch should be provided using long strokes with moderate, consistent pressure. Quick, light stroking is a more uncomfortable, alerting and unpredictable sensory experience.
- Whenever possible mouth cares should be performed using colostrum, maternal or donor breast milk. This is known to offer multiple benefits: providing a positive oral experience, supporting the oral and gut microbiome and supporting the early sensory development of taste and smell.

Neonatal Massage

- Neonatal massage is a nurturing intervention that can be used as a neuroprotective strategy to counteract negative sensory input, promote a parasympathetic nervous system response, and enhance developmental outcomes, as well as provide opportunity for parent-infant attachment.
- Neonatal Massage should be taught to parents by a qualified practitioner with specialist training in massage technique designed for specifically for the neonatal population given in an ageappropriate neuroprotective way.
- Choice of oil "The International Association of Infant Massage (IAIM) recommends unscented vegetable oil, preferably organically grown and cold-pressed if possible" (iaim.org.uk, 2014)
 IAIM note that any oil with a high oleic oil content (ie. Olive oil) could affect the immature skin barrier in neonates and infants and its' use should therefore be avoided.
 - Coconut, Grapeseed or sunflower seed oil, cold pressed should be used where available.
 - 'Use by' dates must be adhered to
 - Oils should be stored in a cool, dark place and clearly labelled in patients own container
 - Warm the oil in hands to room temperature before using
 - Ensure a patch test is completed and assessed before massage begins.

Exclusion Criteria

- Infants who have had an immunisation in the previous 72 hours
- Infants with a fever, or who are clinically unstable, or require minimal handling
- Infants with skin integrity problems ie. Skin infection, rashes, broken skin
- Infants undergoing specialist treatment unless medical permission is given
- Infants who are undergoing phototherapy (due to oil use)
- Infants receiving higher levels of respiratory support
- Infants <34 weeks GA

6.5 Positive touch for the infant when parents/primary caregivers are not available

- Each baby should be experiencing positive meaningful interaction and touch each day.
- In circumstances where parents are consistently unavailable, when infants are waiting foster placement or other extenuating circumstances prevail, positive touch should be provided by staff in accordance with an individualised developmental care plan. This plan should consider the infant's neurological maturity and levels of alertness, and outline timing and type of positive touch experience that will be provided throughout the day.
- Positive touch experiences provided by staff could include
 - Still or comfort holds for procedures and cares
 - o Holding and offering a dummy (if consented to) during tube feeds
 - o Cuddles for interaction or when unsettled
 - Still touch when awake
- Use of an assistant or supernumerary staff is appropriate with parent and Unit Lead's permission and they follow the infant's developmental care guideline alongside the nurse taking care of the infant.

6.6 Two person cares (Refer to Cue-led Cares guideline for further details)

- Parents should be shown and encouraged to provide their baby with positive touch support during cares.
- Two-person cares ensures the infant is well supported in the task and provides the needed coregulation to reduce stress in moments of less predictable touch, such as during nappy changes.
- Positive touch support may include:
 - Cupping the infant's head
 - o Supporting the infants' hands to their middle
 - Supporting the bottoms of their feet for foot bracing
 - Holding their hand
 - o Non-nutritive sucking
 - Combination of the above

6.7 Documentation

- All episodes of positive touch, including the infant's response to the experience, should be documented in the nursing record as per the *Bliss Baby charter* recommendations.
- Any concerns arising from positive touch should be clearly documented, including any action taken.

7 Roles and responsibilities

This guideline applies to all clinical staff working within the Thames Valley and Wessex Neonatal ODN. Staff have a responsibility to ensure that they are aware of this guideline and its contents. They should clearly document their rationale if they have not complied with the recommendations detailed in this guideline. It is the responsibility of department managers, consultants, team leaders and education leaders to ensure staff are aware of this guideline.

8 Communication and training plans

The guideline will be displayed on the Thames Valley and Wessex Neonatal ODN and sent to the relevant Care Group clinical teams. The team leaders will be expected to cascade to all relevant staff groups. All medical, nursing staff caring for newborns should have support and training in implementing the contents of the guideline. In addition, the guidelines will be included in local induction programs for all new staff members.

9 Process for monitoring compliance

The purpose of monitoring is to provide assurance that the agreed approach is being followed. This ensures that we get things right for patients, use resources well and protect our reputation. Our monitoring will therefore be proportionate, achievable and deal with specifics that can be assessed or measured.

Key aspects of this policy will be monitored. Where monitoring identifies deficiencies, actions plans will be developed to address them.

10 Document review

Guideline to be reviewed after three years or sooner as a result of audit findings or as any changes to practice occurs.

11 References

Asadollahi M, Jabraeili M, Mahellei M, Asgari Jafarabadi M, Ebrahimi S (2016) Effects of gentle human touch and field massage on urine cortisol level in premature infants: a randomized, controlled clinical trial. Journal of Caring Sciences, 5(3), 187–194.

Baniasadi, H., Hosseini, S., Abdollahyar, A., Sheikhbardsiri, H. (2019). Effect of massage on behavioural responses of preterm infants in an education hospital in Iran. Journal of Reproductive and Infant Psychology, 37(3), 302-310.

Bliss (2005) <u>Look at me –I'm talking to you! Watching and understanding your premature baby,</u> Bliss Publications, London.

Bond C (2000) Positive Touch; Winnicott Baby Unit Workshop, St Mary's Hospital, Paddington. London.

Bond.C (1999) Positive touch and massage in the neonatal unit: A means of reducing stress levels. <u>Journal of Neonatal Nursing</u>, Vol 5, No 5, pp16-20.

Brauer, J., Xiao, Y., Paulain, T., Frierici, A.D., & Schirmer, A. (2016). Frequency of maternal touch predicts resting activity and connectivity of the developing social brain. Cerebral Cortex, 26(8), 3544-3552.

Browne, J. (2000). Considerations for touch and massage in the neonatal intensive care unit. Neonatal Network, 19 (1), 61-64.

Carissa, J. C., Moore, D., McGlone, F. (2019). Social touch and human development. Developmental Cognitive Neuroscience, 35, 5-11. https://doi.org/10.1016/j.dcn.2018.04.009

Dunn.C (2006) The gentle power of touch, Little Bliss, Issue 4, Winter 2006-06, pp6-7.

Fatollahzade, M., Parvizy, S., Kashaki, M., Haghani, H., & Alinejad-Naeini, M. (2020). The effect of gentle human touch during endotracheal suctioning on procedural pain response in preterm infant admitted to neonatal intensive care units: a randomized controlled crossover study. The Journal of Maternal-Fetal & Neonatal Medicine, 1-7.

Feldman, R., Singer, M., & Zagoory, O. (2010). Touch attenuates infants' physiological reactivity to stress. Developmental science, 13(2), 271-278.

Feldman, R. (2011). Maternal touch and the developing infant. Handbook of Touch New York: Springer, 373-407.

Franck.L, et al (2002) Infant Holding Policies and Practices in Neonatal Units. <u>Neonatal Network</u>. Vol 21, No 2, pp13-19.

Great Ormond Street Hospital for Children (2018) Gloves are off! Campaign. at https://www.england.nhs.uk/atlas_case_study/the-gloves-are-off-campaign

Harrison.L (1997) Research utilisation: Handling premature infants in the NICU. <u>Neonatal Network</u>, vol 16, No 3, pp65-9.

International Association of Infant Massage (2014) Accessed online at: http://www.iaim.org.uk/news.htm on 01/04/19.

Kenner.C and McGrath.J.M (2004) <u>Developmental care of Newborns and infants. A guide for healthcare professionals.</u> Mosby St Louis.

Kim MA, Kim SJ, Cho H (2017) Effects of tactile stimulation by fathers on physiological responses and paternal attachment in infants in the NICU: a pilot study. Journal of Child Health Care, 21(1), 36–45.

Lilaussieprems (2016) <u>Touching your premature baby in NICU</u> <u>and beyond</u>. L'il Aussie Prems Foundation, http://www.lilaussieprems.com.au

Loveday HP, Wilson JA, Pratt RJ, Golsorkhi M, Tingle A, Bak A, Browne J, Prieto J, Wilcox M, UK Department of Health. epic3: national evidence-based guidelines for preventing healthcare-associated infections in NHS hospitals in England. J Hosp Infect. 2014 Jan;86 Suppl 1:S1-70. doi: 10.1016/S0195-6701(13)60012-2. PMID: 24330862; PMCID: PMC7114876.

Marisa Mercuri, Dale M. Stack, Sabina Trojan, Lorenzo Giusti, Francesco Morandi, Irene Mantis, Rosario Montirosso, Mothers' and fathers' early tactile contact behaviors during triadic and dyadic parent-infant interactions immediately after birth and at 3-months postpartum: Implications for early care behaviors and intervention, Infant Behavior and Development, 10.1016/j.infbeh.2019.101347, **57**, (101347), (2019).

Mosalli R. Whole body cooling for infants with hypoxic-ischemic encephalopathy. J Clin Neonatol. 2012 Apr;1(2):101-6. doi: 10.4103/2249-4847.96777. PMID: 24027701; PMCID: PMC3743149.

NDHNT (2018) <u>Developmental care Guidelines</u> v3.1, Northern Devon Healthcare NHS Trust. Found at:

https://www.northdevonhealth.nhs.uk/wp-content/uploads/2018/10/Developmental-Care-Guidelines-V-4-0.pdf

Pineda, R., Bender, J., Hall, B., Shabosky, L., Annecca, A. and Smith, J. (2018). Parent participation in the neonatal intensive care unit: Predictors and relationships to neurobehavior and developmental outcomes. Early Human Development, 117(18), pp.32–38.

Pineda R, Guth R, Herring A, Reynolds L, Oberle S, Smith J (2017) Enhancing sensory experiences for very preterm infants in the NICU: an integrative review. Journal of Perinatology: Official Journal of the California Perinatal Association, 37(4), 323–332.

Parashar.P et al (2016) Yakson Touch as a part of early intervention in the Neonatal Intensive Care Unit: A systematic review. <u>Indian Journal of Critical Care Medicine</u>, Vol 20, No 6, pp39-42.

Raeside.L and Riley.K (2019) <u>Neonatal Pain Guideline</u>, Greater Glasgow and Clyde Paediatric Guidelines, Found at: https://www.clinicalguidelines.scot.nhs.uk/ggc-paediatric-guidelines/ggc-guidelines/neonatology/neonatal-pain-quideline/

The Australasian NIDCAP Training Centre (2018). *The 5-Step Dialogue Information Sheet* Found at: https://www.schn.health.nsw.gov.au/files/attachments/five_step_dialogue.pdf

Warren.I and Bond.C (2010) A guide to infant development in the Newborn Nursery, Winnacott Baby Unit, London.