



**CLINICAL GUIDELINE**

**Developmental Positioning Guideline**

<b>Scope (Staff):</b>	Nursing and Medical Staff
<b>Scope (Area):</b>	NICU KEMH, NICU PCH, NETS WA

This document should be read in conjunction with this [DISCLAIMER](#)

This positioning guideline aims to:

- Improve and maintain physiological status or autonomic system of the infant.
- Facilitate flexion in limbs and trunk appropriate for gestational maturation.
- Promote recommendations for infants preparing for discharge home in line with current recommendations of Sudden Infant Death Syndrome (SIDS) prevention.
- Incorporate position changes where appropriate to facilitate mobility, prevent developmental delays and hospital acquired deformities as well as support self-regulatory behaviours.

**Key Points**

- All infants requiring respiratory support should be nursed with the head of the cot elevated to 30°.
- All infants no longer requiring respiratory support including low flow oxygen therapy are to be nursed with the mattress flat unless medically ordered and documented.
- Safety is paramount, any positioning aids used need to be easily removed in emergency situations.
- Boundaries should support and contain rather than restrict spontaneous movements.
- The infant face should be clear of rolls /nest to avoid occlusion and distortion of nares.
- Correct alignment of head, trunk and limbs in any position will assist in preventing acquired postural deformity.
- Peanut pillows are available to maintain head alignment during all cares only. Remove before leaving the bedside.
- Positioning is based on how much and how little assistance the infant needs. Avoid over-protection and recognise each infant's competency. Positioning and positioning aids should be based on the infant's cues and capabilities.
- Explain to parents the use of positioning aids and why they should not be used in the home environment (SIDS recommendations).

## Prone and ¼ Turn Prone

Long-term prone positioning results in excessive abduction and external-rotation at hips and external tibial torsion at ankles. Retraction of shoulders, more severe scaphocephaly and reduced general mobility and hand to mouth skills. It is important to provide boundaries as sick or very preterm infants do not have the muscle strength to maintain a comfortable flexed position.

**See diagrams in nursery for a visual guide.**

**All positioning is guided by the acronym:**

**A - Alignment    B - Boundary    C - Comfort    F - Flexion    M - Midline**

Place infant with chin slightly tucked, and arms flexed and hands close to shoulders or face. Avoid excessive hip abduction. Maintain position with use of a **nest** or **swaddled**. Prone position preferred for:

- Medically fragile infants.
- Infants with acute respiratory disease (ventilated or on CPAP).
- Infants with feed intolerance.
- Infants with identified medically documented needs e.g. Pirerre-Robin Sequence.

## ¼ Turn Prone

This position should only be used with ventilated or CPAP infants.

Alternate prone with ¼ turn prone as soon as infant is stable.

- Flex uppermost arm and leg over a roll that supports the trunk from shoulder to pelvis.
- Position other arm and leg extended or semi flexed as in 'recovery' position.
- The underneath knee should face the same way or be in neutral position. Take particular care of this underneath leg.
- If in an open cot provide boundary with swaddle.

## Side-Lying

Side lying reduces hip/shoulder abduction and rotation, promotes midline behaviour and encourages hand to face and grasping behaviour. Can be used to treat unilateral lung disease, better oxygenation may be achieved by positioning the 'good' lung uppermost. Left lateral position is as effective as prone position to reduce the severity of GOR. Infants with neurological impairments and CNLD who have had prolonged admission will benefit from side lying as this encourages hand to hand and hand to mouth and helps to establish oral feeding.

Swaddle with infant's hands free so that they can touch their face, suck on their fingers or hold onto a toy. Avoid over-protection, and remove positioning aids when infant is competent to remain in position unaided.

Preferred position for:

- Infants who do not have to be in prone position for respiratory reasons.
- Stable infants tolerating milk feeds.
- Surgical infants who are unable to be nursed prone.

This position should include

- Head in midline and aligned with the trunk.

- Pelvis tucked and legs flexed.
- Lower arm well forward to prevent infant rolling to prone position.
- Uppermost arm and shoulder forward and hands together.
- Use swaddling as a positioning aid.
- May use roll inside swaddle to support chest/ abdomen and between legs.
- May use bean bag at base of cot to maintain pelvic tuck.

## **Supine**

### **Infants Requiring Intensive Medical Care**

Support shoulders, arms, hips and legs (use rolls and a nest). Support and alter head position with use of a peanut pillow or 'fat pad'. Check pressure areas as charted, refer to [Skin Care Guidelines](#) and be aware of flattening of the head on one side (plagiocephaly).

Preferred position for:

- Muscle relaxed infants.
- Infants with unilateral and bilateral intercostal catheters.
- Surgical infants as required.

### **Stable Infants**

Preferred position for stable infants who:

- Do not require cardiac monitoring.
- Have stable respiratory rate.
- Have not experienced large vomits or spills during the previous 48 hours.
- > 34 weeks and/or preparing for discharge.
- Long term CPAP infants.

Swaddle. Place infant with feet at the bottom of the cot. Tuck in bedclothes securely to prevent the infant slipping under the covers. No bumpers or toys in cot (SIDS Guidelines). Alter infant's head position from side to side. Educate parents with demonstration and support.

## **Supported Sitting with a Frazer Chair**

Frazer chairs are provided by the Physiotherapy Department for post-term infants for ongoing neurodevelopmental support as appropriate. They provide a semi-reclined posture with pelvic tuck/ hip flexion and supported shoulder protraction. This provides the infant with a symmetrical supported position with midline orientation for visual gazing/ sensory input and age appropriate input. Please contact the Paediatric Physiotherapist for further guidance.

## **Positioning during Kangaroo Care**

Offer as often and for as long as is tolerated by baby and practical for parents. Developmentally appropriate positioning should be continued during kangaroo care. The optimal position includes

- Position baby flexed, elbows tucked and hands near face. Legs tucked up in a neutral hip and foot position (avoid excessive external rotation/abduction).

References	
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4.	Gouna G, Rakza T, Kuissi E, Pennaforte T, Mur S, Strome L. Positioning Effects on Lung Function and Breathing Pattern in Premature Newborns. The Journal of Pediatrics. June 2013; 162(6): 1133-1137.e1.
5.	Hough JL, Johnston L, Brauer SG, Woodgate PG, Pham TMT, Schibler A. Effect of body position on ventilation distribution in preterm infants on continuous positive airway pressure. Pediatric Critical Care Medicine. 2012;13(4):446-451 10.1097/PCC.0b013e31822f18d9.
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7.	Sleeping position, oxygenation and lung function in prematurely born infants studied post term. Arch. Dis. Child. Fetal Neonatal Ed. 2009;94(2):F133-F137.

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