



CLINICAL PRACTICE GUIDELINE

Guideline coverage includes NICU KEMH, NICU PMH and NETS WA

## Physiotherapy: Respiratory

This document should be read in conjunction with the [Disclaimer](#)

To assist with clearance of secretions in specific pulmonary conditions. The decision to use chest physiotherapy is individualised, commenced and performed by a physiotherapist on referral from a Consultant or SR.

### Indications

Lung collapse on CXR or Aspiration on CXR.

### Contraindications

- Unstable infant, low blood pressure, apnoeas, bradycardias or severe desaturation on handling.
- Recent IVH.
- Hypothermia.
- Recent pneumothorax and risk of recurrence.
- PIE.
- Pulmonary haemorrhage.
- Thrombocytopenia.
- Evidence of osteopenia on X-ray.

### Key Points

The physiotherapist will liaise with the nurse caring for the infant to organise the appropriate time for treatment.

A nurse must be in attendance at all times during physiotherapy to attend to the infant's needs and make ventilator changes.

### Procedure (To be Performed by Physiotherapist)

- If infant is on continuous feeds, turn feed off 10 minutes prior to treatment.
- Observe HR and oxygen saturation.
- Observe ventilator settings and modality: if on SIPPV/PSV reduce the sensitivity of trigger from 1.0 to 1.6 to avoid triggering due to artefacts like manual vibration.
- Auscultate and perform suction as necessary.

### Respiratory Physiotherapy May Include


- Vibration.
- Percussion.
- Gravity assisted drainage position.

If the physiotherapist leaves instructions for gravity assisted drainage, position infant according to instructions and diagrams.

Ensure positioning is documented.

## References

1. Beeby PJ, Henderson-Smart DJ, Lacey JL, Rieger I. Short and long term neurological outcomes following neonatal chest physiotherapy. *Journal of Paediatrics and Child Health*. 1998.
2. Button BM, Heine RG, Catto-Smith AG, Phelan, PD. Postural drainage in cystic fibrosis: is there a link with gastro-oesophageal reflux? *Journal of Paediatrics and Child Health*. 1998;34:330-4.
3. De Moraes dos Santos ML, De Suetza LA, Bastiton AP, Palhares DB. Results of airway clearance techniques in respiratory mechanics of preterm neonates under mechanical ventilation. *Rev.bras.ter.intensiva*. 2009; 21(2)
4. Gallon A. Evaluation of chest percussion in the treatment of patients with copious sputum production. *Respiratory Medicine*. 1991;85:443.
5. Harding JE, et al. Chest physiotherapy may be associated with brain damage in extremely preterm infants. *Journal of Paediatrics*. 1998; 132: 440-4.
6. Hough JL, Flenady V, Johnston L, Woodgate PG. Chest physiotherapy for reducing respiratory morbidity in infants requiring ventilator support. *Cochrane Database of Systematic Reviews*. 2008;
7. Hough JL, Johnston L, Brauer S, Woodgate P, Schibler A. Effect of body position on ventilation perfusion in ventilated preterm infants. *Pediatric Critical Care Medicine*. 2013 Feb;14(2):171-7
8. Hough JL, Johnston L, Brauer SG, Woodgate PG, Pham TM, Schibler A. Effect of body position on ventilation distribution in preterm infants on continuous positive airway pressure. *Pediatric Critical Care Medicine*. 2012 July;13(4):446-51.
9. Lewis JA, Lacey JL, Henderson DJ. A review of chest physiotherapy in neonatal intensive care units in Australia. *Journal of Paediatrics and Child Health*. 2008

Document owner:	Neonatal Coordinating Group		
Author / Reviewer:	Neonatal Coordinating Group		
Date first issued:	June 2006		
Last reviewed:	1 <sup>st</sup> June 2015	Next review date:	1 <sup>st</sup> June 2018
Endorsed by:	Neonatal Coordinating Group	Date endorsed:	June 2015
Standards Applicable:	NSQHS Standards: 1  Governance		
<p><b>Printed or personally saved electronic copies of this document are considered uncontrolled.</b></p> <p><b>Access the current version from the WNHS website.</b></p>			