


# \*What's Posture Got To Do With It?

## Part II: Improving Feeding Outcomes


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\*List 3 reasons to feed infants in the elevated side-lying position.


\*1) \_\_\_\_\_ ? \_\_\_\_\_  
 \*2) \_\_\_\_\_ ? \_\_\_\_\_  
 \*3) \_\_\_\_\_ ? \_\_\_\_\_

### \*Objective




\*Definitions:

- \*Elevated side-lying (ESL): Infant placed in side-lying, with the head higher than the feet.
- \*Modified side-lying (MSL): Side-lying position, with a slightly upright tilt, head still being higher than the feet. (Ludwig & Waltzman, 2007)




### \*What is "Side-Lying"?




- \*Set the stage
- \*Lights down
- \*Sound down
- \*Supplies ready
- \*Chair
- \*Lap / Pillow
- \*Appropriate bottle/nipple
- \*Burp cloths

### \*How to....




- \*Prepare the infant
  - \*Readiness signs
  - \*Swaddled appropriately
- \*Prepare the feeder
  - \*Presence
  - \*Deep breath


### \*How to...



\*Optimal Functional Position




### \*Reason #1





- \* Mimics most frequently used breastfeeding position
  - \* Cradle / Cross-cradle holds
- \* Promotes flexion
  - \* Inhibits extensors
  - \* Stable base of support for oral motor function
- \* Fewest stress behaviors seen in supported side-lying (Grenier, I.R., et al 2003)
- \* 60° incline increases reflux (Carroll, A.E., et al 2002)



**\* Optimal Functional Position**

\* Safety



**\* Reason #2**

- \* Safety
  - \* Greater physiologic stability (Clark, L. et al, 2007)
    - \* Oxygen saturations increase
    - \* Heart rate variation decreases
  - \* Decreases risk of adverse events
    - \* Apneas and Bradycardias
    - \* Aspiration
      - \* Decreases free-flow from bottle nipple
      - \* Allows infant to self pace easier
      - \* Allows for easier external pacing
  - \* May provide slower flow without thickening or specialty nipples

**\* Safety**

\* Developmentally Supportive



**\* Reason #3**

- \* Provides flexion, containment and alignment during feeding
  - \* Recommended practice during all caregiving activities (Core measure # 3- Developmental activities of daily living: positioning & feeding - Coughlin, M. 2009)
- \* Promotes neurobehavioral organization (Als, H. 1986)
  - \* Autonomic
  - \* Motor
- \* Can be easily performed by parents



**\* Developmentally Supportive**

\*Neurodevelopment is occurring in your hands, right before your very eyes

\*"Neurons that fire together... wire together!"




**\*Remember**



\*List 3 reasons to feed infants in the elevated side-lying position.

- \*1) Optimal functional position
- \*2) Safety
- \*3) Developmentally supportive

**\*Objective**




\* Carroll, A.E., Garrison, M.M., Christakis, D.A. A systematic review of nonpharmacological and nonsurgical therapies for gastroesophageal reflux in infants. *Arch Pediatr Adolesc Med.* 2002; 156: 109-113

\* Coughlin, M., Gibbins, S. & Hoath, S. (2009) Core measures for developmentally supportive care in neonatal intensive care units: theory, precedence and practice. *Journal of Advanced Nursing* 65(10), 2239-2248. doi: 10.1111/j.1365-2648.2009.05052.x

\* Grenier, J.R., Bigsby, R., Vergara, E.R., Lester, B.M. Comparison of motor self-regulatory and stress behaviors of preterm infants across body positions. *AJOT*. May/June 2003; vol 57 no. 3; 289-297. doi:10.5014/ajot.57.3.289

\* Ludwig, S.M., Waitzman, K.A. (2007) Changing feeding documentation to reflect infant-driven feeding practice. *Newborn and infant nursing reviews*. Vol 7, issue 3. 155-160.


**\*References**



\*Clark, L., Kennedy, G., Pring, T., Hird, M. (2007) Improving bottle feeding in preterm infants: Investigating the elevated side-lying position. *Infant* 3(4): 154-58.

\*Als, H. (1986) A synactive model of neonatal behavior organization: framework for the assessment of neurobehavioral development in the preterm infant in the neonatal intensive care environment. *Phys Occup Ther Pediatr.* 6:3-53.

**\*References**




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