


Neonatal Neurodevelopment: References at a Glance



Provided as a service by:



FAMILY

Craig, J., Glick, C., Phillips, R., Hall, S., Smith, J., Browne, J., (2015). Recommendations for involving the family in developmental care of the NICU baby. *Journal of Perinatology*, 35, S5-S8.

Fegran, L., Helseth, S., Fagermoen, M., (2008) A comparison of mothers' and fathers' experiences of the attachment process in a neonatal intensive care unit. Blackwell Publishing Ltd doi: 10.1111/j.1365-2702.2007.02125.x

M. Hollywood, E. Hollywood, "The lived experiences of fathers of a premature baby on a neonatal intensive care unit. *Journal of Neonatal Nursing* (2011) 17, 32-40.

McAllister, M., & Dionne, K. (2006). Partnering with parents: Establishing effective long-term relationships with parents in the NICU. *Neonatal Network*, 25, 329-336.

Melnyk, M, Feinstein, N., Alpert-Gillis, L., Fairbanks, E., Crean, H., Sinkin, R., et al., (2006). Reducing Premature Infants' Length of Stay and Improving Parents' Mental Health Outcomes With the Creating Opportunities for Parent Empowerment (COPE) Neonatal Intensive Care Unit Program: A Randomized, Controlled Trial. *Pediatrics*, 118;e1414-e1427. doi: 10.1542/peds.2005-2580

Sisson H, Jones C, Williams R, Lachanudis, L. Metaethnographic Synthesis of Fathers' Experiences of the Neonatal Intensive Care Unit Environment During Hospitalization of Their Premature Infants. *J Obstet Gynecol Neonatal Nurs*. 2015 Jul-Aug; 44(4):471-80.

Johnson, A. N., (2008). Promoting Maternal Confidence in the NICU. *Journal of Pediatric Healthcare*, 22(4). 254-257. doi:10.1016/j.pedhc.2007.12.012

Browne, J.V., & Talmi, A. (2005). Family-based intervention to enhance infant-parent relationships in the neonatal intensive care unit. *Journal of Pediatric Psychology*, 30, 667-677. doi:10.1093/jpepsy/jsio53.

Reid, T., Bramwell, R. Booth, N. & Weindling, M. (2007). Perceptions of parent-staff communication in neonatal intensive care: The findings from a rating scale. *Journal of Neonatal Nursing* 13, 64-74.

FEEDING

Field, D., Garland, M., & Williams, K. (2003). Correlates of specific childhood feeding problems. *Journal of Paediatrics and Child Health*, 39, 299-304.

Graven S. Eating as a Neurodevelopmental Process for High-Risk Newborns. *Clinics in Perinatology* 2011; (38):731-743

Hawdon, J., Beauregard, N., Slattery, J., & Kennedy, G. (2000). Identification of neonates at risk of developing feeding problems in infancy. *Developmental Medicine and Child Neurology*. 42, 235-239.

Ludwig, S. M., & Waitzman, K. A. (2007). Changing feeding documentation to reflect infant-driven feeding practice. *Newborn and Infant Nursing Reviews*, 7, 155-160.

Pridham, K. F., Schroeder, M., Brown, R., & Clark, R. (2001). The relationship of a mother's working model of feeding to her feeding behavior. *Journal of Advanced Nursing*, 35, 741-750.

Reyna, B. A. (2006). A descriptive study of mothers' experiences feeding their preterm infants after discharge. *Advances in Neonatal Care*, 6, 333-340.

Shaker, C.S. (1999). Nipple feeding preterm infant: An individualized, developmentally supportive approach. *Neonatal Network*, 18(3), 15-22.

Thoyre, S. M. (2003). Developmental transition from gavage to oral feeding in the preterm infant. *Annual Review of Nursing Research*, 21, 61-92.

Thoyre, S. M. (2007). Feeding outcomes of extremely premature infants after neonatal care. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 36, 366-375. doi:10.1111/j.1552-6909.2007.00158

Waitzman KA, Ludwig SM, Nelson C. (2014). Contributing to content validity of the infant-driven feeding scales© through delphi surveys. *Newborn and Infant Nursing Reviews*, 14(3):88-91.

POSITIONING

Aly, H., Soliman, R., El-Dib, M., Said, R., Abdellatif, M., Sibai, H. Elwakkad, A., (2015). Does Positioning Affect Tracheal Aspiration of Gastric Content in Ventilated Infants?. *Journal of Pediatric Gastroenterology and Nutrition*, 60(3), 327-331.

Bhat, RY, Hannam, S, Pressler, R, Rafferty, GF, Peacock, JL, Greenough, A. (2006). Effect of prone and supine position on sleep, apneas, and arousal in preterm infants. *Pediatrics*, 118(1), 101-107.

Cignacco, E., Azelin, A., Staffel, L. Sellam, G., Anand, K., Engberg, S., (2010). Facilitated Tucking as a non-pharmacological intervention for neonatal pain relief: Is it clinically feasible?. *Acta Paediatrica*, doi:10.1111/j.1651-2227.2010.01941.x

Corvaglia, L., Martini, S., Aceti, A., Arcuri, S., Rossini, R., Faldella, G., (2013). Nonpharmacological Management of Gastroesophageal Reflux in Preterm Infants. *Biomed Research International*, <http://dx.doi.org/10.1155.2013/141967>.

DeGrazia M, Giambanco D, Hamn G, Ditzel A, Tucker L, Gauvreau K., (2015) Prevention of Deformational Plagiocephaly in Hospitalized Infants Using a New Orthotic Device. *JOGN*, Vol 4(1).

Dunsirn, S., Smyser, C., Liao, S., Inder, T., Pineda, R. (2015). Heading in the Right Direction: Understanding Head Turn Preference in the Premature Infant. *American Journal of Occupational Therapy*, Vol. 69, 6911505115p1. doi:10.5014/ajot.2015.69S1-PO4054.

Fern, D. (2011). A neurodevelopmental care guide to positioning and handling the premature, fragile or sick infant: Supporting infant development. DF Publishing.

Gerard, C., Harris., Thach, B., (2002). Spontaneous Arousals in Supine Infants While Swaddled and Unswaddled During Rapid Eye Movement and Quiet Sleep. *Pediatrics* 110(6), <http://www.pediatrics.org/cgi/content/full/110/6/e70>.

Gillies, D., Wells, D., Bhandari, A., (2012) Positioning for Acute Respiratory Distress in hospitalized infants and children. A Cochrane Review, doi: 10.1002/14651858. CD003645.pub3

Gouna, G., Rakza, T., Kuissi, E., Pennaforte, T., Mur, S. Storme, L., (2013). Positioning Effects on Lung Function and Breathing Pattern in Premature Newborns. *The Journal of Pediatrics*, 162(6), 1133-1137.

Grenier, I., Bigsby, R., Vergara, E., Lester, B., (2003). Comparison of Motor Self-Regulatory and Stress Behaviors of Preterm Infants Across Body Positions. *The American Journal of Occupational Therapy*, 57(3), 289-297.

Hunter J., (2010). Therapeutic positioning: neuro-motor development and beyond. In: Kenner C, McGrath JM, eds. *Developmental Care of Newborns & Infants: A Guide for Healthcare Professionals*. 2nd ed. Chicago, IL: National Association of Neonatal Nurses; 285-31.

Knorr, A., Gavreau, K., Porter, C., Seriso, E. & DeGrazia, M. (2016). Use of the cranial cup to correct positional head shape deformities in hospitalized premature infants. *Journal of Obstetrical, Gynecological and Neonatal Nursing*, 45, 542-552.

Knorr, A., Giambianco, D., Staude, M., St. Germain, M., Porter, C., et al. (2019). Feasibility and safety of the premie orthotic device to manage deformational plagiocephaly in extremely low birth weight infants. *Advances in Neonatal Care*. doi: 10.1097/ANC.0000000000000585

Litmanovitz, I., Dolfen, T., Friedland, O., Arnon, S., Regov, R., Shainkin-kestbaum, R., et al., (2003). Early Physical Activity Intervention Prevents Decrease of Bone Strength in Very Low Birth Weight Infants. *Pediatrics*, 112(1), 15-19.

Malusky, S., Donze, A., (2011). Neutral head positioning in premature infants for intraventricular hemorrhage prevention: an evidence-based review. *Neonatal Network*, 30(6), 381-96. Doi:10.1891/0730-0832.30.6.381.

Madlinger-Lewis, L., Reynolds, L., Zarem, C., Crapnell, T., Inder, T., & Pineda, R. (2014). The effects of alternative positioning on preterm infants in the neonatal intensive care unit: A clinical trial. *Research in Developmental Disabilities*, 35, 490-497.

Robertson, S. S., & Bacher, L. F., (1995). Oscillation and chaos in fetal motor activity. In J. P. Lecanuet, W. P. Fifer, N. A. Krasnegor, & W. P. Smotherman (Eds.), *Fetal development: A psychobiological perspective* (pp. 169- 189). Hillsdale, NJ: Erlbaum.

Schwend, R., Shaw, B., Segal, L., (2014). Evaluation and Treatment of Developmental Hip Dysplasia in the Newborn and Infant. *Pediatric Clinics in America*. 61, 1095-1107. <http://dx.doi.org.10.1016/j.pcl.2014.08.008>

Sweeney, J., & Gutierrez, T. (2002). Musculoskeletal implications of preterm infant positioning in the NICU. *Journal of Perinatal Neonatal Nursing*, 16(1), 58-70.

Toso, B. R. (2015). Validation of newborn positioning protocol in Intensive Care Unit. *Revista brasileira de enfermagem*, 68(6), 1147-1153.

Vaivre-Douret, L., Ennouri, K., Jrad, I., Garrec, C., Papiernik, E., (2004). Effect of positioning on the incidence of abnormalities of muscle tone in low- risk, preterm infants. *European Journal of Paediatric Neurology*, 8, 21-34.

Vaivre-Douret, L., Golse, B., (2007). Comparative effects of 2 positional supports on neurobehavioral and postural development in preterm neonates. *Journal of Perinatal and Neonatal Nursing*, 21(4), 323-30.

Van Sleuwen, B., Engelberts, A., Boere-Boonekamp, M., Kuis, W., Schulpen, T., L'Hoir, M., (2007). Swaddling: A Systematic Review. *Pediatrics*, 120(4), 1097-1106.

Visscher, M., Lacina, L., Casper, T., Dixon, M., Harmeyer, J. Haberman, B., et al. (2015). Conformational Positioning Improves Sleep in Premature Infants with Feeding Difficulties. *Journal of Pediatrics*, 166(1), 44-48.

Wielenga, J., Helder, O., Mansvelt, P., van den Hoogen, A. (2011) Is cranial molding preventable in preterm infants? A systematic literature review of the effectiveness of interventions. *Pediatric Intensive Care Nursing* 12(1-2).

Zarem, C., Crapnell, T., Tiltges, L., Madlinger, L., Reynolds, L., Lukas, K., & Pineda, R. (2013). Neonatal nurses' and therapists' perceptions of positioning for preterm infants in the neonatal intensive care unit. *Neonatal Network*, 32, 110-116. <http://dx.doi.org/10.1891/0730-0832.2.110>

SAFE SLEEP

AAP Technical Report on SIDS (2011) SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment. *Pediatrics*, 128(5), e1-e29.

Chizawsky, L., Scott-Findlay, S., (2005). Tummy time! Preventing unwanted effects of the "back to sleep" campaign. *AWHONN Lifelines*, 9, 382-387.

Shadman, K., Wald, E., Smith, W. & Coller, R. (2016). Improving safe sleep practices for hospitalized infants. *Pediatrics*, 138(3); e1-e9.

Waitzman, K., (2007). The Importance of Positioning the Near-term Infant for Sleep, Play and Development. *Newborn and Infant Reviews*, 7(2), 76-81.

NEURO-DEVELOPMENT/SENSORY SYSTEM/ LIMBIC SYSTEM/STRESS & TRAUMA

Als, H., (1982). Toward a synactive theory of development: Promise for the assessment and support of infant individuality. *Infant Mental Health Journal*, 3(4), 229-243.

Altimer, L., Phillips, R. (2016) The neonatal integrative developmental care model: Advanced clinical applications of the seven core measures for neuroprotective family-centered developmental care. *Newborn & Infant Nursing Reviews*, 16; 230-244.

Braun K. (2011). The Prefrontal-Limbic System: Development, Neuro-anatomy, Function, and Implication for Socio-emotional Development. *Clinics in Perinatology*, doi:10.1016/j.clp.2011.08.013: 685-702.

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*, doi: 10.1111/j.1365- 2648.2009.05052.x

Graven S. Early Visual Development: Implications for the Neonatal Intensive Care Unit. *Clinics in Perinatology* 2011; (38): 671-683

Graven S, Brown J. (2008). Sensory Development in the Fetus, Neonate, and Infant: Introduction and Overview. *Newborn & Infant Nursing Reviews*, 8(4):169-172.

Graven, S., (2006). Sleep and Brain Development. *Clinics in Perinatology*, 33, 693-706.

Hack M, et al. (2005). Chronic conditions, functional limitations, and special health care needs of school aged children born with extremely low-birth-weight in the 1990s. *JAMA*, 294(3): 318–325.

Hunter J., (2010). Therapeutic positioning: neuro-motor development and beyond. In: Kenner C, McGrath JM, eds. *Developmental Care of Newborns & Infants: A Guide for Healthcare Professionals*. 2nd ed. Chicago, IL: National Association of Neonatal Nurses; 285-31.

Hille ETM, et al. (2007). Functional outcomes and participation in young adulthood for very preterm and very low birth-weight infants: The Dutch project on preterm and small for gestational age infants at 19 years of age. *Pediatrics*. Published online August 31, 2007 (doi:10.1542/peds.2006-2407).

Krishnan, L., (2013). Pain Relief in Neonates, *Journal of Neonatal Surgery*, 2(2).

Lacina, L., Casper, T., Dixon, M., Harmeye, J., Haberman, B., Alberts, J., et al., (2015). Behavioral Observation Differentiates the Effects of an Intervention to Promote Sleep in Premature Infants. *Advances in Neonatal Care*, 15(1), 70-76.

Lawhon, G., & Melzar, A. (1988). Developmental care of the very low birth weight infant. *Journal of Perinatal and Neonatal Nursing*, 2(1), 56–65.

Lickliter, R., (2011). The Integrated Development of Sensory Organization. *Clinics in Perinatology*, 38, 591- 603. doi:10.1016/j.clp.2011.08.007

Lickliter R. (2011). The Integrated Development of Sensory Organization. *Clinics in Perinatology*, doi:10.1016/j.clp.2011.08.007.591-603.

Lotas, M., & Walden, M., (1996). Individualized developmental care for very low-birth-weight infants: A critical review. *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 25(8), 681–687.

Madlinger-Lewis, L., Reynolds, L., Zarem, C., Crapnell, T., Inder, T. & Pineda, R. (2013). The effects of alternative positioning on preterm infants in the neonatal intensive care unit: A randomized clinical trial. *Research in Developmental Disabilities*, 35; 490-497.

Maroney D. (2003). Recognizing the Potential Effect of Stress and Trauma on Premature Infants in the NICU: How are Outcomes Affected? *Journal of Perinatology*, 23:(679-683).

McMahon E. Wintermark P. Lahav A. Auditory brain development in premature infants: the importance of early experience. *Annals of the NY Academy of Sciences*. 2012; 1252: 17-24

Milgrom, J., Newnham, C., Martin, P., Anderson, P., Doyle, L., Hunt, R., et al., (2013). Early communication in preterm infants following intervention in the NICU. *Early Human Development*. 89(9), 757-767.

Millette, I., Martel, M., Ribiero da Silva, M., Coughlin, M. (2018). Guidelines for institutional implementation of developmental neuroprotective care in the NICU: A joint position statement from CANN, CAPWHN, NANN and COINN. *Advances in Neonatal Care*, 19(1), 9-10.

Msall M. (2011) Physiological Stress and Brain Vulnerability: understanding the Neurobiology of Connectivity in Preterm Infants. *Annals of Neurology*. 70(4):523-524.

Samara M, et al. (2008). Pervasive behavior problems at 6 years of age in a total-population sample of children born at <25 weeks of gestation. *Pediatrics*, 122(3): 562–573.

Smith, G., Gutovich, J., Smyser, C., Pineda, R., Newnham, C., Tjoeng, T., et al., (2011). Neonatal Intensive Care Unit Stress Is Associated with Brain Development in Preterm Infants. *Annals of Neurology*, 70, 541-549. Smith G. et al. (2011). Neonatal Intensive Care Unit Stress Is Associated with Brain Development in Preterm Infants. *Annals of Neurology*, 70(4):541-549.

Tyson JE, et al. (2008). Intensive care for extreme prematurity—Moving beyond gestational age. *New England Journal of Medicine*, 358(16): 1672–1681.

Umphred D. et al. The limbic system: influence over motor control and learning. <http://clinical.gate.com>. Chapter 5: 1-21.

Yecco, G., (1993). Neurobehavioral development and developmental support of premature infants. *Journal of Perinatal and Neonatal Nursing*, 7(1), 56–65.

Zarem, C., Crapnell, T., Tiltges, L., Madlinger, L., Reynolds, L., Lukas, K., et al. (2013). Neonatal nurses' and therapists' perceptions of positioning for preterm infants in the neonatal intensive care unit. *Neonatal Network*, 32(2); 110-116.

TEAMWORK

Brown, M.S., Ohlinger, J., Rusk, C., Delmore, P., Irrmann, P. (2003). Implementing potentially better practices for multidisciplinary team building: Creating a neonatal intensive care unit culture of collaboration. Retrieved from http://www.pediatrics.org/cgi/content/full/111/4/e482_e487.

THERMOREGULATION

Andrews, C., Whatley, C., Smith, M., Brayton, E., Simone, S. & Holmes, A. (2017). Quality-improvement effort to reduce hypothermia among high-risk infants on a mother-infant unit. *Pediatrics*, 141(3).

Joseph, R., Derstine, S. & Kilian, M. (2017). Ideal site for skin temperature probe placement on infants in the NICU. *Advances in Neonatal Care*, 17(2); 114-122.