

Audrey Naylor, MD, DrPH "Maternal-Infant Readiness for Complementary Feeding"
General Session, Thursday, July 25, 2002

The recommendation to begin solids at 4-6 months originated in the 1970s, based on incorrect estimates of energy and nutrient needs. There was poor understanding of the power of exclusive breastfeeding. Early studies didn't distinguish exclusive from mixed feedings, and results were flawed. There was poor understanding of human lactation physiology and management and how to improve milk production. Growth charts were created based on formula-fed babies. Breastfed babies tend to grow faster at first, then cross over the formula-fed growth curves, while formula fed babies keep getting fatter. Among the reported negative health effects of premature introduction of complementary foods for infants are a 2 – 13 times higher morbidity and mortality from diarrhea, and lower IQ. For mothers, an important consideration is the shortened maternal lactational infertility, resulting in millions more babies born than nature intended. Maternal postpartum weight reduction is affected, as is an increased risk of certain maternal cancers, such as ovarian and breast. (See Lancet 7/19/02. Combined 47 studies to give thousands of subjects. Longer breastfeeding could halve our breast cancer rates.)

Two reviews were undertaken in 2000 to determine when best to introduce complementary foods and end breastfeeding. Two approaches were used: 1. Examine health outcomes 2. Consider developmental readiness

WHO undertook a systematic review of optimal duration of exclusive breastfeeding in order to assess effects on child health (including growth and development) and on maternal health of exclusive breastfeeding for 6 months versus 3-4 months. A very extensive lit search showed that exclusive breastfeeding for 6 full months demonstrated less infectious morbidity into the second and third year, no deficits in growth, accelerated neuromuscular development in children, and delayed return of menses and rapid loss of pregnancy weight gain in mothers. The final recommendations of the WHO Expert Consultation 3/28-30/01 were for exclusive breastfeeding for 6 months (not "about" 6 months). This decision has major ramifications. It poses a multimillion dollar loss for baby food companies targeting the 4-6 month old infant market. There was intense lobbying against it from the infant food companies.

Audrey Naylor, along with Sarah Danner and Sandra Lang, looked at the oral motor development of infants. Babies become developmentally ready to handle semisolids at 6 – 8 months of age, not at 3-4 months of age.

Considering the question of how long to continue breastfeeding, current statements are:

- AAP: At least 12 months and thereafter as long as mutually desired
- WHO: for 2 years and beyond, with nutritionally healthy complementary foods
- Dettwyler: 2.5-7 years is physiologically and developmentally normal for humans.

At 6 months, start foods that contain iron. It is unusual to have anemia, even after exclusive breastfeeding for 9 months. Breast milk is not deficient in Vitamin D. Human development depends on some exposure to sunshine. This is not happening in U.S. today. The majority of the population in the world gets exposure to sun.

Saturday, July 27, 2002 Track I: "Pre-Terms: Supporting Breastfeeding in the NICU
Lucille Harrington, RN, IBCLC , Neonatal ICU nurse in Seminole, FL "Kangaroo Care, Baby in a Pouch"

Susan Luddington is the expert in this field, the "mother" of kangaroo care.

Find advocates for kangaroo care or it won't fly. Physician advocates are important. Their peers will listen to them.

Write up and present a plan in terms of service, outcome and cost. Hospitals want to know the cost per patient per day.

Have a hospital policy. This covers you.

In U.S. we are more focused on buying things. (rocking cribs, bouncy seats, etc.)

All babies in NICU should get kangaroo care. A constant, embracing confinement. Baby is flexed in, skin to skin.

Empowers parents to care for their child with supportive medical care the baby needs. When baby is separated from mother, stress hormones increase 70%. In kangaroo care, stress hormones decrease. Mother is the natural habitat for the baby. Kangaroo care promotes maternal-infant thermal synchrony. The temperature of the breast increases and decreases as baby needs, with more adjustments than possible in an isolette.

Father's temperature keeps going up. Father starts sweating after an hour. Mother's temperature goes up, then down, in response to baby's needs. Baby should be dressed only in a diaper. A hat may make baby too hot in kangaroo care.

Have mother wear a soft, button down flannel shirt. Small babies should not be held too upright. If get kinks in neck, can get airway obstruction. Mother should recline a little. Don't rock too much. It will cause babies with gastrointestinal reflux to spit up. Mother should expect to hold baby with reflux upright for about 45 minutes after feeding. All NICUs should have quiet/nap times – try for 1 hour per shift. No procedures, no TV, low lights, lower phones, lower conversations.

Behavioral signs of happiness in baby in kangaroo care include:

- Relaxed brow
- Uplifted cheeks and chin
- Gently flexed hand
- Flexed posture
- Smiles
- Relaxed inactivity
- Utter contentment
- Behavioral signs of fatigue and stress (Take in context. Watch vital signs. Take with a grain of salt.

Don't want mother to feel she got her baby stressed or overtired. Babies have hiccups in utero.):

- Finger splay
- Sagging cheeks and chin
- Furrowed brow
- "Stop sign" – hand up in a stop sign mode
- Hiccups
- Yawn

Kerstin Hedberg Nyqvist, RN, PhD, IBCLC Uppsala Children's Hospital, Sweden
"Breastfeeding Support for Pre-Term Infants: Developmentally Supportive Aspects from a Swedish Perspective"

They do kangaroo care from 30 weeks gestational age, from day of birth if possible.

- Most need feeding tubes. If nasal, may compromise breathing. If oral, interferes with latch and suction on breast. Don't know which is best. Try intermittent tube, cup feeding, test weighing. If permanent tube, do aspiration and estimate. Bottles rarely used. They offer cup if baby awake after breastfeeding.
- Avoid fixed feeding hours, long intervals. Respond to rooting and feed. If baby doesn't wake or root, feed at intervals to mimic normal feeding frequency:
- Under 1500 grams: every 2 hours
- Over 1500 grams: every 3 hours

Maintain same feeding frequency when baby goes home.

- Preterm baby doesn't like jiggling, patting. Hold still.
- Sweden guarantees paid parental leave at 80% pay for 9 months, longer at 50% after that. 60% are exclusively breastfeeding at 6 months.