

## Physics and Forces in Birth: Effect on the Infant

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## For Breastfeeding to Succeed

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- The baby is able to feed
- The mother is be able and willing to let her baby feed
- Breastfeeding is comfortable for both
- Surroundings support the dyad

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## What can go wrong?

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- Mechanical forces disrupt body parts
- Chemical (drug) sequelae
- Injuries to mother and baby
- Psychological impact on relationships
- Long-term effects documented

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## Birth practices affect breastfeeding

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### **This isn't new!**

"Alert and active participation by the mother in childbirth is a help in getting breastfeeding off to a good start" (LLLL, 1985 & earlier)

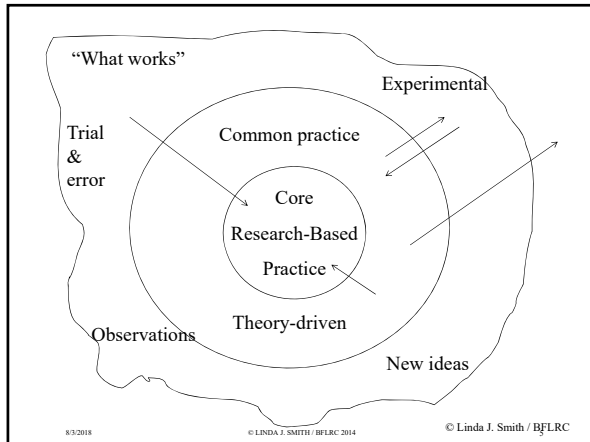
WHO Fortelaza 1985

WHO-UNICEF Joint Statement, 1989

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### What Evidence Really Counts?

- Few studies of birth practices address breastfeeding outcomes
- Few studies of breastfeeding control for birth practices
- Professional segmentation
- Politics of Research
- Funding

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### WHO/UNICEF Global Strategy 2003

*“Mothers and babies form an inseparable biological and social unit; the health and nutrition of one group cannot be divorced from the health and nutrition of the other.”*

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### How does birth affect BF?

- Mother’s confidence & trust in ability to birth = confidence in her ability to breastfeed
- Attitudes matter
- “You can do this!”

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## Setting the stage for BF problems

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- Laboring alone
- In bed, supine
- Immobile
- Food & drink withheld; IV fluids
- Chemical induction and/or augmentation
- Narcotics for pain

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## Risk factors for BF problems

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- Epidural & narcotics
- Induction
- Cesarean surgery
- Forceps delivery
- Vacuum extractor
- Long difficult labor, esp. OP presentation

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## Induction of labor

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WHO: 10% induction rate for justifiable medical reasons.

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## Chance or Choice? How did we get here?

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Simkin: “Need to control parturition is as old as birth”

This isn’t new!

- The U.S. Food and Drug Administration disapproved of elective inductions in the 1970s due to iatrogenic prematurity, overcrowded neonatal intensive care units, and huge unnecessary costs

Increased risk of infant death

- Kramer, M. S., Demissie, K., Yang, H., Platt, R. W., Sauve, R., & Liston, R. (2000). The contribution of mild and moderate preterm birth to infant mortality. Fetal and Infant Health Study Group of the Canadian Perinatal Surveillance System. *JAMA*, 284(7), 843-849.

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### Risks of inducing labor

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- 2X the risk of Cesarean in primiparas
- Synthetic oxytocin = stronger CTX
  - ↑ pressure on baby's head
  - ↑ maternal pain
  - ↑ infant pain ?
- Less-mature baby ?
- WHO: 10% induction medically justified

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### The baby's experience matters

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"Minimizing pain and discomfort to the infant during birth seems to be of importance in reducing the risk of committing suicide by violent means as an adult."

"Birth events likely to cause pain to the infant: non-vertex presentation, meconium stained fluid and membranes, instrumental delivery or internal version, resuscitation, complications requiring ward care (separation)"

◦ Jacobson B, Bygdman M. *BMJ* 1998;317:1346-9

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### Cranial bones & dura move

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- 22 bones / bony segments in infant
- Articulate at 34 sutures / places
- Dura connects cranial structures, spinal column, sacrum
- Twists during Cardinal movements

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### Infant transition to extrauterine environment

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- Realignment of bones & dura
- Aided by sucking, breastfeeding, breathing, crying, movement
- Usually resolves in 1-2 weeks

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## Excess forces to baby's head

Induction & augmentation

Pushing on fundus

Supine position

Immobility

Instruments and Cesarean

Result: more & abnormal molding

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## Indirect outcomes

Synthetic oxytocin = stronger contractions

- ↑ pressure on baby's head
- Increased cranial molding, probably stressful

↑ infant pain ?

↑ maternal pain

- ↑ Maternal desire for pain relief drugs
- Reduced natural endorphins in mother & baby/fetus

Less-mature baby

- "Mild- and moderate-preterm birth infants are at high relative risk for death during infancy and are responsible for an important fraction of infant deaths" (Kramer, JAMA 2000)

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## Greater risk of Cesarean

Zhang J, Troendle J, Reddy UM, et al, for the Consortium on Safe Labor. Contemporary cesarean delivery practice in the United States. *Am J Obstet Gynecol* 2010;203:e-pub ahead of print.

**RESULTS:** The overall cesarean delivery rate was 30.5%.

- The 31.2% of nulliparous women were delivered by cesarean section.
- Prelabor repeat cesarean delivery due to a previous uterine scar contributed 30.9% of all cesarean sections.
- The 28.8% of women with a uterine scar had a trial of labor and the success rate was 57.1%.
- The 43.8% women attempting vaginal delivery had induction.
- Half of cesarean for dystocia in induced labor were performed before 6 cm of cervical dilation.

### CONCLUSION

- To decrease cesarean delivery rate in the United States, reducing primary cesarean delivery is the key. Increasing vaginal birth after previous cesarean rate is urgently needed. Cesarean section for dystocia should be avoided before the active phase is established, particularly in nulliparous women and in induced labor.

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## More / excessive molding

Facial and/or jaw asymmetry

- Wall, V., & Glass, R. (2006). Mandibular Asymmetry and Breastfeeding Problems: Experience From 11 Cases. *J Hum Lact*, 22(3), 328-334.

Torticollis

- Stellwagen, L., Hubbard, E., Chambers, C., & Jones, K. L. (2008). Torticollis, facial asymmetry and plagiocephaly in normal newborns. *Arch Dis Child*, 93(10), 827-831.
- Stellwagen, L. M., Hubbard, E., & Vaux, K. (2004). Look for the "stuck baby" to identify congenital torticollis. *Contemporary Pediatrics*, 21(May), 55.

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## BF outcomes – one new study

Brimdyr, K., Cadwell, K., Widström, A.-M., Svensson, K., Neumann, M., Hart, E. A., . . . Phillips, R. (2015). The Association Between Common Labor Drugs and Suckling When Skin-to-Skin During the First Hour After Birth. *Birth*, n/a-n/a. doi: 10.1111/birt.12186

<https://www.youtube.com/watch?v=gX44xcS995k>

“Results suggest that intrapartum exposure to the drugs fentanyl and synthetic oxytocin significantly decreased the likelihood of the baby suckling while skin-to-skin with its mother during the first hour after birth.”

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## Clinical implications

Immaturity: more respiratory problems

Difficulty coordinating suck/swallow/breathe

? Effect on lactogenesis ?

- May contribute to delayed lactogenesis

Head pain from excess forces?

More drugs to metabolize

Begins a cascade of interventions

Reduces chance for unassisted vaginal birth (Tracy)

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## Instruments = more injuries & insults

### Forceps

- Compromise trigeminal nerve, parietal bones
- Bruising & pain

### Vacuum extractor

- Disrupt parietals, occiput, internal bones & dura
- Brain bleeds

Cesarean: pressure at cranial base

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## Cesarean + vacuum

- Baby couldn't latch, suck or get milk at breast
- Baby chewed and flattened mother's nipple
- Mother stopped breastfeeding & blamed herself

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## Research Evidence

“Vacuum vaginal delivery was a strong predictor of early cessation of breastfeeding”

- Hall RT, Mercer AM, Teasley SL, et al. 2002. A breastfeeding assessment score to evaluate the risk for cessation of breastfeeding by 7 to 10 days of age. *J Ped* 141:659–664.

Poor feeding is one sign of intercranial bleeding

- Avrahami E, Amzel S, Katz R, et al. 1996. CT demonstration of intracranial bleeding in term newborns with mild clinical symptoms. *Clin Radiol* 51:31–34.

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## Research Evidence (cont.)

Tappero: “Forceps use can cause bruising and nerve damage to the sides of the infant cranium, causing the jaw to deviate to the paralyzed side when the mouth is open.”  
*Physical Assessment of the Newborn, 1993.*

Evans: “The volume of milk transferred to infants born by caesarean section was significantly less than that transferred to infants born by normal vaginal delivery on days 2 to 5 ( $p < 0.05$ ).” *Arch Dis Child Fetal Neonatal Ed* 2003;88:F380–F382.

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## Vacuum and jaundice

“All infants exposed to vacuum assisted delivery devices will have a caput succedaneum” – FDA 1998

“Cephalohematoma or significant bruising” is a ‘major risk factor’ for hyperbilirubinemia and kernicterus” – AAP 2004

Jaundiced babies feed poorly; poor feeding can cause or exacerbate jaundice

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## Misalignment may persist

Epidural = 4x more OP presentations

“A strong association of epidural with fetal occiput posterior position at delivery represents a mechanism that may contribute to the lower rate of spontaneous vaginal delivery consistently observed with epidural.”

Lieberman E. *Obstet Gynecol* 2005; 105 (5 Pt 1):974-82

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Instruments affect mother

Forceps = more vaginal injury, pain

Surprise / emergency C/S = role in maternal PTSD reactions

Vacuum = possible role in maternal reactions to birth (?)

Unexpected appearance of injured baby = ?? Effect on bonding?

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Elective Cesarean Surgery

Any Cesarean Surgery

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All Cesareans increase risk

Poorer infant outcomes

- More separation, suctioning, resuscitation
- More formula supplementation
- Poorer bonding with mother
- Reduced milk transfer days 2-5 (Evans, 2003)

More maternal pain & drugs

- Longer recovery, surgical recovery
- Delayed onset of lactogenesis
- More difficulty starting breastfeeding
- Adhesions and late-onset problems
- **3X the risk of maternal death (2006)**

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ACOG and Society for Maternal-Fetal Medicine

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March 2014. Safe Prevention of the Primary Cesarean Delivery

In 2011, one in three women who gave birth in the United States did so by cesarean delivery. Cesarean birth can be life-saving for the fetus, the mother, or both in certain cases. However, the rapid increase in cesarean birth rates from 1996 to 2011, without clear evidence of concomitant decreases in maternal or neonatal morbidity or mortality raises significant concern that cesarean delivery is overused. Variation in the rates of nulliparous, term, singleton, vertex cesarean births also indicates that clinical practice patterns affect the number of cesarean births performed.

The most common indications for primary cesarean delivery include, in order of frequency, labor dystocia, abnormal or indeterminate (formerly, nonreassuring) fetal heart rate tracing, fetal malpresentation, multiple gestation, and suspected fetal macrosomia.

Safe reduction of the rate of primary cesarean deliveries will require different approaches for each of these, as well as other indications.

For example, it may be necessary to revisit the definition of labor dystocia because recent data show that contemporary labor progresses at a rate substantially slower than what was historically taught.

Additionally, improved and standardized fetal heart rate interpretation and management may have an effect. Increasing women's access to nonmedical interventions during labor, such as continuous labor and delivery support, also has been shown to reduce cesarean birth rates.

External cephalic version for breech presentation and a trial of labor for women with twin gestations when the first twin is in cephalic presentation are other of several examples of interventions that can contribute to the safe lowering of the primary cesarean delivery rate.

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### Clinical Implications

WHO: 10 – 15% probably medically justified

NIH: Trial of Labor is a reasonable option for many pregnant women with a prior low transverse uterine incision. *NIH Consensus Development Conference: Vaginal Birth After Cesarean: New Insights* March 8–10, 2010

ACOG: VBAC guidelines 2010; Cesarean prevention guidelines 2014

Watch for possible infant respiratory and suck problems

- Effect on direct breastfeeding; need for feeding devices

Watch for possible delayed onset of lactation

- Prenatal expression of colostrum from 36 weeks?

Plan for extended maternal pain

- Most pain relievers are compatible with BF

Assure close skilled follow up!

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### Suctioning & airway management

Oral aversion

Superstimulus

Triggers poor tongue movements

Injury to oropharynx (L. Black)

Mucus has a purpose (M. Klaus)

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### Research on suctioning

Lack of benefit

- “Routine intrapartum oropharyngeal and nasopharyngeal suctioning of term-gestation infants born through MSAF does not prevent MAS. Consideration should be given to revision of present recommendations.” Vain et al, *Lancet* 2004;364 (9434):597-602

Long term negative consequences

- “Noxious stimulation caused by gastric suction at birth may promote the development of long-term visceral hypersensitivity and cognitive hypervigilance, leading to an increased prevalence of functional intestinal disorders in later life.” Anand, Runeson, Jacobson, *J Pediatr* 2004;144:449-54

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### Affect suck if done before 1<sup>st</sup> BF

Separation from mother for **any reason**

Weighing & Measuring

Vitamin K injection

Heel stick for metabolic tests

Circumcision

Infant hypothermia

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# Chemical pain relief including epidurals

## Drugs for pain relief

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**ALL** cross the placenta (Loftus,1995)

IV or Epidural: rapid transfer

- 15 seconds to 1-2 minutes

Epidural: higher absolute dose than IV

Highly lipid (fat) soluble

Redistribute to fetus/infant brain

- can't always find in cord blood

**All** delay the onset of lactation !

- Lind, J. N., Perrine, C. G., & Li, R. (2014). Relationship between Use of Labor Pain Medications and Delayed Onset of Lactation. *Journal of Human Lactation*, 30(2), 167-173

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Lind, J. N., Perrine, C. G., & Li, R. (2014). Relationship between Use of Labor Pain Medications and Delayed Onset of Lactation. *Journal of Human Lactation*, 30(2), 167-173

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Vaginal w spinal/epidural only - **aOR - 2.05**

Vaginal w spinal/epidural + another medication - **aOR1.79**

Vaginal w other labor pain medications only (not spinal/epidural) - **aOR 1.84**

Planned C/S w spinal/epidural only- **aOR 2.13**

Planned C/S w spinal/epidural + another medication **aOR - 2.67**

Emergency C/S w spinal/epidural only - **aOR 2.17**

Emergency C/S with spinal/epidural + another medication - **aOR 3.03**

Lind et al., 2014

## Epidural rates continue to rise

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Overall, 2008 births:	61%
White non-Hispanic	68%
Black and Asian	62%
Hawaiian	53%
Hispanic	48%
Native American/Alaska	42.1%

Source: National Vital Statistics Report, vol. 59, No. 5, April 2011

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### Pediatric half-life matters

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Bupivacaine: 8.1 hours  
 Mepivacaine: 9 hours  
 Fentanyl: up to >18 hours, dose-related

**5 half-lives to clear from baby**  
 Observed effects for at least 30 days (*Sepkoski*)  
**"HE'S NOT SLEEPY – HE'S DRUGGED!"**

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### All drugs reach the baby... even local lidocaine

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"It has not previously been reported that the use of analgesia via pudendal block has an adverse effect on the initiation of developing breastfeeding behavior including sucking."

Ransjö-Arvidson, A., Matthiesen, A., Lilja, G., Nissen, E., Widstrom, A., & Uvnas-Moberg, K. (2001). Maternal analgesia during labor disturbs newborn behavior. *Birth*, 28, 5 - 12.

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### Risks of epidural analgesia

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- Poor progress of labor (esp.in primips)
- More oxytocin augmentation
- Longer second stage
- Less SVD; more instrument delivery
- More maternal fever
- More newborn sepsis workup
- Psychological:
  - Less interaction with baby (*Sepkoski*)
  - Less mastery of mothering skills (*Poore*)

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### Risks of epidural analgesia (cont.)

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- Less maternal movement in labor
  - More malpresentation, more pain
- Overhydration = more edema (?)
  - Supine hypotension = more fluids
- More augmentation = more force on baby
- More resuscitation = poor latch/suck
- More instruments = more injuries
- More chance of Cesarean surgery
- Delayed onset of lactation (*Lind 2014*)

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## Research evidence (cont.)

“Because ‘failure to breastfeed’ is not recognized as a possible harmful effect of medication, there are few methodological precedents in this area.

“This is the first report of a dose–response relationship between intrapartum neuraxial opioid analgesia and infant feeding.

When well-established determinants of infant feeding are accounted for, intrapartum fentanyl may impede breastfeeding, particularly at higher doses.

Jordan et al BJOG 2005;112:927-934

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## Abundant Evidence of consequences

“Among women who breast-fed previously, those who were randomly assigned to receive high-dose labor epidural fentanyl were more likely to have stopped breast-feeding 6 weeks postpartum than women who were randomly assigned to receive less fentanyl or no fentanyl.”

◦ Bellin Y et al. Effect of labor epidural analgesia with and without fentanyl on infant breast-feeding: A **prospective, randomized, double-blind study**. *Anesthesiology* 2005, 103(6), 1211-1217.

◦ Note: “high dose” was more than 150 µg fentanyl

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## Epidural drugs affect suck

Brimdyr, K., Cadwell, K., Widström, A.-M., Svensson, K., Neumann, M., Hart, E. A., . . . Phillips, R. (2015). The Association Between Common Labor Drugs and Suckling When Skin-to-Skin During the First Hour After Birth. *Birth, n/a-n/a*. doi: 10.1111/birt.12186

<https://www.youtube.com/watch?v=gX44xcS995k>

“Results suggest that intrapartum exposure to the drugs fentanyl and synthetic oxytocin significantly decreased the likelihood of the baby suckling while skin-to-skin with its mother during the first hour after birth.”

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## Delayed spontaneous breastfeeding; increased formula supplementation

“Significantly fewer babies of mothers with EDA during labour suckled the breast within the **first 4 hours of life** [odds ratio (OR) **3.79**].

These babies were also more often given artificial milk during their hospital stay (OR 2.19) and fewer were fully breast fed at discharge (OR 1.79).

Delayed initiation of breast feeding was also associated with a prolonged first (OR 2.81) and second stage (OR 2.49) and with the administration of oxytocin (OR 3.28).

**Key conclusions: the study shows that EDA is associated with impaired spontaneous breastfeeding including breastfeeding at discharge from the hospital!**

◦ Wiklund, I., Norman, M., Uvnas-Moberg, K., Ransjo-Arvidson, A. B., & Andolf, E. (2009). Epidural analgesia: breast-feeding success and related factors. *Midwifery*, 25(2), e31-38.

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## Reduced warming effect of STS

"Skin temperature increased significantly ( $p=0.001$ ) during the entire experimental period in the infants belonging to the control group.

The same response was observed in infants whose mothers received OT intravenously during labour ( $p=0.008$ ).

**No such rise was observed in infants whose mothers were given an EDA during labour.**

**CONCLUSION:** The results show that the skin temperature in newborns rises when newborns are put skin-to-skin to breastfeed two days postpartum. This effect on temperature may be **hampered by medical interventions during labour such as EDA."**

- Jonas, W., Wiklund, I., Nissen, E., Ransjo-Arvidson, A. B., & Uvnas-Moberg, K. (2007). Newborn skin temperature two days postpartum during breastfeeding related to different labour ward practices. *Early Hum Dev*, 83(1), 55-62.
- Epidural

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## Hormone effects

### ▶ Reduced oxytocin

- Rahm, V. A., Hallgren, A., Hogberg, H., Hurtig, I., & Odland, V. (2002). Plasma oxytocin levels in women during labor with or without epidural analgesia: a prospective study. *Acta Obstet Gynecol Scand*, 81(11), 1033-1039.

### ▶ Reduced pulsatile oxytocin

- Nissen, E., Uvnas-Moberg, K., Svensson, K., Stock, S., Widstrom, A. M., & Winberg, J. (1996). Different patterns of oxytocin, prolactin but not cortisol release during breastfeeding in women delivered by caesarean section or by the vaginal route. *Early Hum Dev*, 45(1-2), 103-118.

### ▶ Reduced maternal socialization; increased anxiety and aggression

- Jonas, W., Nissen, E., Ransjo-Arvidson, A. B., Matthiesen, A. S., & Uvnas-Moberg, K. (2008). Influence of oxytocin or epidural analgesia on personality profile in breastfeeding women: a comparative study. *Arch Womens Ment Health*, 11(5-6), 335-345.

### ▶ Lowered endogenous oxytocin with epidural + oxytocin infusion

- Jonas, W., Johansson, L. M., Nissen, E., Ejdeback, M., Ransjo-Arvidson, A. B., & Uvnas-Moberg, K. (2009). Effects of Intrapartum Oxytocin Administration and Epidural Analgesia on the Concentration of Plasma Oxytocin and Prolactin, in Response to Suckling During the Second Day Postpartum. *Breastfeed Med*, 4(2), 71-82.

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## Infant has beta-endorphins

Rise significantly in third trimester

Increase >4 cm dilation (normal labor)

Movement through pelvis is stressful

Induction, instruments, C/S = excess pressure on infant head and body

Potent pain-relief

- "beta-endorphin is 18 to 33 times more potent than morphine"
- Loh, *Proc Natl Acad Sci USA* 1976

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## Labor drugs & endorphins

Fentanyl and bupivacaine block **maternal** endorphins

Epidural drugs block **infant** endorphins

Elective C/S blocks **infant** endorphins

- Therefore ...

Baby is defenseless against normal forces

Mechanical forces cause even MORE pain

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### Protections via breastfeeding

Colostrum has twice the amount of beta-endorphin as mother's blood

Colostrum & milk endorphins remain elevated at least 10 days (Zanardo, 2001)

Levels are even higher for preterm births

- **BUT...**

Elective C/S delivery and epidural drugs significantly **lower milk endorphin levels**

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### More hormone responses

Beta-endorphins in BABY affected by drugs

Beta-endorphins in MILK affected by drugs

Oxytocin responses blocked by drugs; affect bonding and more

Separation triggers stress responses

- Both mother and baby
- Permanent biological changes – increased cortisol → stronger and quicker stress responses

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### Cumulative effect of interventions

**“RESULTS:** We observed increased rates of operative birth in association with each of the interventions offered during the labour process. For first time mothers the association was particularly strong.

**CONCLUSIONS:** This study underlines the need for better clinical evidence of the effects of epidurals and pharmacological agents introduced in labour.

At a population level it demonstrates the magnitude of the fall in rates of unassisted vaginal birth in association with a cascade of interventions in labour and interventions at birth particularly amongst women with no identified risk markers and having their first baby.”

- Tracy, S. K., Sullivan, E., Wang, Y. A., Black, D., & Tracy, M. (2007). Birth outcomes associated with interventions in labour amongst low risk women: a population-based study. *Women Birth*, 20(2), 41-48.

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Tracy, S. K., Sullivan, E., Wang, Y. A., Black, D., & Tracy, M. (2007). Birth outcomes associated with interventions in labour amongst low risk women: a population-based study. *Women Birth*, 20(2), 41-48.

Rate of unassisted vaginal birth in association with instrumental and caesarean births amongst 'low risk' first time mothers, Australia, 2000–2002.

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## Traumatic birth impedes BF

**“RESULTS:** Eight themes emerged about whether mothers' breast-feeding attempts were promoted or impeded. These themes included (a) proving oneself as a mother: sheer determination to succeed, (b) making up for an awful arrival: atonement to the baby, (c) helping to heal mentally: time-out from the pain in one's head, (d) just one more thing to be violated: mothers' breasts, (e) enduring the physical pain: seeming at times an insurmountable ordeal, (f) dangerous mix: birth trauma and insufficient milk supply, (g) intruding flashbacks: stealing anticipated joy, and (h) disturbing detachment: an empty affair.

**CONCLUSIONS:** The impact of birth trauma on mothers' breast-feeding experiences can lead women down two strikingly different paths. One path can propel women into persevering in breast-feeding, whereas the other path can lead to distressing impediments that curtailed women's breast-feeding attempts.”

◦ Beck, C. T., & Watson, S. (2008). Impact of birth trauma on breast-feeding: a tale of two pathways. *Nurs Res*, 57(4), 228-236.

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## Birth Trauma and Breastfeeding

Beck CT, Watson S. Impact of birth trauma on breast-feeding: a tale of two pathways. *Nurs Res*. Jul-Aug 2008;57(4):228-236.

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## Perinatal origin of adult self-destructive behavior

Perinatal events – adolescent suicide (Salk, 1985)

Suicide method – birth events (Jacobsen, 1987)

- Asphyxia deaths – asphyxia at birth
- Violent mechanical suicide – mechanical birth trauma
- Drug addiction – opiates / barbiturates in labor

Labor pain meds – amphetamine addiction (Jacobson, 1988)

Opiates in labor – opiate addiction in adults (Jacobson, 1990)

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## Injured, drugged babies feed poorly

Damaged nipples = pain, infection

Poor feeding = hungry, fussy baby

- undermines mom's confidence, behaviors

Poor feeding = retained milk, low supply

Need even more equipment (pumps) and help in establishing breastfeeding

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## Practice changes

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### Results of the BFHI on birth practices

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Ukraine: "When MFM was introduced, the OB community changed practices 'from the top down' in 6 months"

- *Dr. Elena Sherstyuk and Dr. Lidiia Romanenko, June 2008, WHO biannual meeting of BFHI National Coordinators, Geneva*

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## Recovery and Restoration

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### Recovery and restoration

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Immediate and uninterrupted skin-to-skin contact "Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour and encourage mothers to recognize when their babies are ready to breastfeed, offering help if needed." BFHI Step 4

24-hour rooming-in with safe bedding-in

- BFHI Step 7

Lactation support from skilled provider teams

Follow-up care & support in the community

- BFHI Step 10

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Support the mother!

Listen to mothers tell their birth story *until they don't need to tell it any longer*

Provide sensitive lactation support as long as mother wants / needs help

Help her start, maintain, or wind down BF

Document, share evidence with all MDs

Other?

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Feldman-Winter L, Goldsmith JP: **Safe Sleep and Skin-to-Skin Care in the Neonatal Period for Healthy Term Newborns.** *Pediatrics* 2016, 138(3).

"This clinical report is intended for birthing centers and delivery hospitals caring for healthy newborns to assist in the establishment of appropriate SSC and safe sleep policies."

"Avoid bed-sharing in the immediate postpartum period by assisting mothers to use a separate sleep surface for the infant."

"To facilitate continued exclusive breastfeeding, the coordination of postdischarge support is recommended to enable the best opportunity to meet breastfeeding goals. Mothers may be referred to peer support groups and trained lactation specialists if breastfeeding problems occur."



**FIGURE 1**  
Side-car bassinet for in-hospital use. Photo courtesy of Kristin Tully, PhD.

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Be prepared for difficulties

Immediate & uninterrupted Skin-to-Skin

Begin hand expression by 1-2 hours PP

Donor milk available on prescription

Keep mothers and babies together 24/7

Safe bedsharing

Close skilled follow-up (teams)

- During and after hospital stay
- Ongoing community support (LLL)

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\* AAP SIDS Policy Oct. 2016

"The safest place for an infant to sleep is on a separate sleep surface designed for infants close to the parents' bed.

However, the AAP acknowledges that parents frequently fall asleep while feeding the infant.

Evidence suggests that it is **less hazardous to fall asleep with the infant in the adult bed than on a sofa or armchair, should the parent fall asleep.**"

- Moon, R. Y. (2016). SIDS and Other Sleep-Related Infant Deaths: Evidence Base for 2016 Updated Recommendations for a Safe Infant Sleeping Environment. *Pediatrics*, 138(5), e1-e34. doi: 10.1542/peds.2016-2940

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## Role of Breastfeeding Care Providers

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- Document labor profiles of difficult breastfeeding situations and discuss with providers
- Request joint discussions on problem cases and investigate the possible reasons and contributing factors for BF difficulties
- Communicate and collaborate with obstetric and pediatric physicians, midwives and nurses
- Form / join / connect local birth & breastfeeding coalitions

Community breastfeeding activist and baby, Malawi (MK)

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## For Breastfeeding to Succeed

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The baby is able to feed: able to cue, suck, swallow, and breathe smoothly

The mother is producing milk and willing to bring her baby to breast many times a day and night

Breastfeeding is comfortable for both

Surroundings support the dyad

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## Summary

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Failure to breastfeed is harmful

Cesarean surgery can negatively affect breastfeeding initiation

All labor pain-relief drugs including epidurals negatively affect infant neurobehavior

Cumulative effects of interventions on BF

Mother-Friendly Practices from WHO

Recovery may be challenging and long

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## Thanks to...

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LLLI for realizing that birth matters 60+ years ago!

UNICEF and WHO for Every Newborn Action Plan

The late Mary Kroeger, CNM, MPH

ILCA for support of BFHI worldwide

Jones & Bartlett Learning (Publishers)

**To *all of you* for thinking about this issue from now on!**

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Thank you!

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*Impact of Birthing Practices on  
Breastfeeding, 2<sup>nd</sup> edition*

[www.jblearning.com](http://www.jblearning.com)

