

---

# Healthy Birth Practice #6: Keep Mother and Baby Together— It's Best for Mother, Baby, and Breastfeeding

健康分娩实践 #6: 母婴同室一对妈妈, 宝宝及母乳喂养都是最好的

Jeannette T. Crenshaw, DNP, RN, NEA-BC, IBCLC, FAAN, LCCE, FACCE

珍妮特 T. 克伦肖, 护理实践博士、注册护士、认证高级护士管理者、国际认证泌乳顾问、认证高级护士管理者、拉玛泽认证分娩教育者、美国分娩教育学会会员

## ABSTRACT

### 摘要

Mothers and babies have a physiologic need to be together at the moment of birth and during the hours and days that follow. Keeping mothers and babies together is a safe and healthy birth practice. Evidence supports immediate, uninterrupted skin-to-skin care after vaginal birth and during and after cesarean surgery for all stable mothers and babies, regardless of feeding preference. Unlimited opportunities for skin-to-skin care and breastfeeding promote optimal maternal and child outcomes. This article is an updated evidence-based review of the “Lamaze International Care Practices That Promote Normal Birth, Care Practice #6: No Separation of Mother and Baby, With Unlimited Opportunities for Breastfeeding,” published in *The Journal of Perinatal Education*, 16(3), 2007.

在婴儿刚出生时, 以及产后数小时和数日内, 母婴都有同室的生理需要。母婴同处是一项安全健康的分娩实践。证据支持在阴道分娩后、以及剖宫产时和剖宫产后, 状态稳定的母婴无论采取何种哺乳方式, 都立即进行不受干扰的肌肤接触。不受限制的肌肤接触和母乳喂养对母婴来说都是最好的。本文是对《围产教育杂志》里发表的《倡导正常分娩的国际拉玛泽照护实践, 照护实践 #6: 母婴不分离, 不限制母乳喂养》2007, 16(3)的最新循证综述。

*The Journal of Perinatal Education*, 23(4), 211–217, <http://dx.doi.org/10.1891/1058-1243.23.4.211>

**Keywords:** skin-to-skin, breastfeeding, exclusive breastfeeding, birth physiology, Baby-Friendly Hospital Initiative, kangaroo care, cesarean/caesarean section, mother–infant interaction, rooming-in, sensitive period, birth practices/practises

《围产教育杂志》, 23(4), 211–217, <http://dx.doi.org/10.1891/1058-1243.23.4.211>

关键词: 肌肤接触、母乳喂养、纯母乳喂养、分娩的生理机制、爱婴医院倡议、袋鼠式育儿、剖宫产、母婴互动、同室、敏感期、分娩实践

An essential practice for safe and healthy birth is to keep mothers and babies together and ensure unlimited opportunities for skin-to-skin care and breastfeeding. Mothers and babies have a physiologic need to be together

*Healthy Birth Practice #6* | Crenshaw

during the moments, hours, and days following birth, and this time together significantly improves maternal and newborn outcomes. Childbirth educators and other health-care professionals have a responsibility to support this

physiologic need through education, advocacy, and implementation of evidence-based maternity practices. Routine separation of healthy mothers and babies can be harmful and can negatively influence short- and long-term health outcomes and breast-feeding success.

健康分娩的一项重要实践就是母婴同室，保证他们可以进行不受限制的肌肤接触和母乳喂养。在婴儿刚出生时，以及产后数小时和数日内，母婴都有同室的生理需要。同室时间能极大地改善产妇和新生儿的结果。分娩教育者和其他医疗专业人士都有责任通过教育、倡导和循证的妇产照护实践，来支持母婴的这种生理需要。对于健康的母婴来说，常规的分离是有害的，会对短期和长期的健康和母乳喂养产生不利的影响。

*This article is an updated evidence-based review of the “Lamaze International Care Practices That Promote Normal Birth, Care Practice #6: No Separation of Mother and Baby, With Unlimited Opportunities for Breastfeeding,” published in The Journal of Perinatal Education, 16(3), 2007*

本文是对《围产教育杂志》里发表的《倡导正常分娩的国际拉玛泽照护实践，照护实践 #6: 母婴不分离，不限制母乳喂养》2007, 16(3)的最新循证综述。

## THE MOMENT OF BIRTH

### 刚分娩后

“What does the baby most need at the moment of birth? Only mother,” said Bergman and Bergman (2013, p. 9), a respected husband (public health physician) and wife (teacher/doula/author) team who have studied the effects of skin-to-skin care. But in most cases, health-care professionals pay little heed at the moment of birth to the Bergman and



An essential practice for safe and healthy birth is to keep mothers and babies together and ensure unlimited opportunities for skin-to-skin care and breastfeeding.

安全和健康分娩的一项关键实践就是母婴同室，保证他们可以进行不受限制的肌肤接触和母乳喂养。

Bergman's findings despite significant advantages to mother and child togetherness highlighted throughout the literature. Based on decades of evidence, the World Health Organization and United Nations Children's Fund (World Health Organization & United Nations Children's Fund, 2009) recommended that all healthy mothers and babies, regardless of feeding preference and method of birth, have uninterrupted skin-to-skin care beginning immediately after birth for at least an hour, and until after the first feeding, for breastfeeding women. Skin-to-skin care means placing dried, unclothed newborns on their mother's bare chest, with warmed light blankets or towels covering the newborn's back. All routine procedures such as maternal and newborn assessments can take place during skin-to-skin care or can be delayed until after the sensitive period immediately after birth (American Academy of Pediatrics Section on Breastfeeding, 2012; American College of Obstetrics and Gynecologists [ACOG] Committee on Obstetrics Practice, Committee on Health Care for Underserved, 2013; Sobel, Silvestre, Mantaring, Oliveros, & Nyunt-U, 2011). First impressions are important and perhaps none more so than the newborn's first moments of introduction to the world and the mother's to her child.

“宝宝刚出生时最需要什么？仅母亲而已。”备受敬重的 Bergman 夫妇如是说。丈夫是公共健康医生，妻子是教师/导乐/作家，他们共同研究了肌肤接触的影响。然而在大多数情况下，尽管 Bergman 夫妇的文献里处处强调了母婴同室的显著益处，医疗专业人士在婴儿出生时并不重视他们的研究结果。根据几十年的研究证据，世界卫生组织和联合国儿童基金会（2009）建议，无论喂养偏好和分娩方式，所有健康的母婴在分娩后，都应立即、不受干扰地持续肌肤接触至少 1 小时。如果是母乳喂养的话，应持续到第一次母乳喂养后。肌肤接触是指把擦干的宝宝裸身放在妈妈的裸胸前，用暖和轻薄的毯子或毛巾盖住宝宝的后背。母婴评估等常规程序都可以在肌肤接触时进行，或等到刚分娩后的敏感期过去之后再进行。（美国母乳喂养儿科学会，2012；美国妇产科学会产科实践委员会，针对贫困人口的健康保健委员会，2013；Sobel, Silvestre, Mantaring, Oliveros, & Nyunt-U, 2011）。

The sensitive period during the first hour or so after birth is significantly influenced by elevated levels of the maternal reproductive hormone, oxytocin, which crosses the placenta to her baby (Buckley, 2014).

*Healthy Birth Practice #6 | Crenshaw*

Oxytocin, which increases significantly during skin-to-skin care, promotes maternal/newborn attachment, reduces maternal and newborn stress, and helps the newborn transition to postnatal life (Buckley, 2014; Moore, Anderson, Bergman, & Dowswell, 2012).

在分娩后第一个小时内这段敏感期，受到女性生殖激素（催产素）升高的极大影响，催产素会通过胎盘到达婴儿体内(Buckley, 2014)。催产素在肌肤接触时急速上升，促进母婴之间的情感纽带，减少母婴压力，帮助新生儿更好地过渡到母亲体外的环境(Buckley, 2014; Moore, Anderson, Bergman, & Dowswell, 2012)。

This sensitive time, sometimes called the “magical hour,” “golden hour,” or “sacred hour,” requires

All routine procedures such as maternal and newborn assessments can take place during skin-to-skin care or can be delayed until after the sensitive period immediately after birth.

母婴评估等常规程序都可以在肌肤接触时进行，或等到刚分娩后的敏感期过去之后再进行。

respect, protection, and support. Disrupting or delaying skin-to-skin care may suppress a newborn's innate protective behaviors, lead to behavioral disorganization, and make self-attachment and breastfeeding more difficult. Lack of skin-to-skin care and early separation also may disturb maternal-infant bonding, reduce the mother's affective response to her baby, and have a negative effect on maternal behavior. This has been shown by rougher handling of the baby during feedings, lower affective responses, and fewer maternal behaviors in response to a baby's cues at 4 days postpartum (Dumas et al., 2013), at 1 and 4 months (Moore et al., 2012), and at 1 year (Bystrova et al., 2009) compared to mothers who were not separated from their newborns.

这段敏感的时期有时被称为“神奇一小时”“黄金一小时”或“神圣一小时”，需要得到尊重、保护和支持。干扰或延迟肌肤接触护理可能会压抑新生儿本能的保护行为，导致行为混乱，并使自行衔乳和母乳喂养更加困难。缺少肌肤接触和早期母婴分离可能干扰母婴的情感连结，减弱母亲对宝宝的情感反应，对母性行为产生负面影响。研究显示，与未与宝宝分离的母亲相比，缺少肌肤接触和早期与婴儿分离的母亲在喂养宝宝时动作更粗暴，情感反应更弱，在产后第4天 (Dumas 等, 2013)、产后1个月4天 (Moore 等, 2012) 和1年 (Bystrova 等, 2009) 时，对宝宝信号的母性行为反应更少。

### *Newborns at Birth*

#### *刚出生后的新生儿*

If mothers are more attached to their babies when they are not routinely separated in the moments after birth, then what about the baby who is eager to meet the mother? At the moment of birth, newborns have a heightened, protective response to tactile, odor, and thermal cues (Moore et al., 2012; Takahashi, Tamakoshi, Matsushima, & Kawabe, 2011). When the newborn is placed skin-to-skin with the mother, this heightened response stimulates behaviors that help to meet the newborn's basic biological needs, activates neuroprotective mechanisms, enables early neurobehavioral self-regulation (Buckley, 2014; Widström, Lilja, Aaltomaa-Michalias, Dahl-löf, & Nissen, 2011), and reduces stress (Bergman & Bergman, 2013; Bigelow, Power, MacLellan-Peters, Alex, & McDonald, 2012; Takahashi et al., 2011). Compared with newborns who did not have skin-to-skin care, newborns who had skin-to-skin care cried less; had enhanced cardio-respiratory stability, including oxygen saturation levels; more stable blood glucose levels; and, enhanced thermal regulation (Moore et al. 2012). Salivary cortisol levels (a biochemical marker for stress) significantly decreased as the duration of skin-to-skin care increased beyond 60 minutes (Takahashi et al., 2011), indicating a dose-response effect.

如果说分娩后不因常规程序而分离母婴，会增加母亲对宝宝的情感，那么母婴同室对急于见到妈妈的宝宝来说会有什么影响呢？新生儿在刚刚出生时对于触觉、气味和温度信号有着更灵敏的保护性反应 (Moore 等, 2012; Takahashi, Tamakoshi, Matsushima, & Kawabe, 2011)。这些更灵敏的反应就会触发某些行为，帮助满足新生儿的基本生理需要，触发神经保护机制，使新生儿进行早期的神经行为自我调节 (Buckley, 2014; Widström, Lilja, Aaltomaa-Michalias, Dahl-löf, & Nissen, 2011)，并减少压力 (Bergman & Bergman, 2013; Bigelow, Power,

MacLellan-Peters, Alex, & McDonald, 2012; Takahashi 等, 2011)。与没有肌肤接触的新生儿相比，进行肌肤接触的新生儿更少啼哭，心肺稳定性（包括血氧浓度）更好，血糖水平更稳定，温度调节能力也更好 (Moore 等, 2012)。唾液皮质醇水平（检测压力的一种生物化学标记）在肌肤接触持续 60 分钟以上时显著下降 (Takahashi 等, 2011)，这呈现出剂量反应效应。

There are other benefits which mother and child share if they are not routinely separated in the moments after birth. The risk of neonatal hypothermia is reduced by skin-to-skin care as the maternal breast quickly adjusts in temperature to regulate her newborn's temperature, promoting thermoregulation (Bergström, Okong, & Ransjö-Arvidson, 2007;

Gabriel et al., 2010; Moore et al., 2012; Sobel et al., 2011; Takahashi et al., 2011). Immediate skin-to-skin care enables colonization of the newborn to maternal flora (vs. hospital flora) to protect against infection and promotes breastfeeding (Sobel et al., 2011).

如果不因常规程序在分娩后立即分离母婴，还会有其它的益处。肌肤接触会让新生儿体温过低的风险降低，这是由于妈妈的乳房快速适应温度，调节宝宝的体温，改善体温调节系统 (Bergström, Okong, & Ransjö-Arvidson, 2007; Gabriel 等, 2010; Moore 等, 2012; Sobel 等 2011; Takahashi 等, 2011)。立即的肌肤接触让母体（而非医院）的菌丛定植到新生儿体内，从而预防感染，促进母乳喂养(Sobel 等, 2011)。

Interrupting skin-to-skin care for early bathing increases the risk of neonatal hypothermia, removes maternal bacteria and vernix (which increases the risk of nosocomial infection), and may inhibit the crawling reflex—potentially reducing the time to effective breastfeeding latch. The benefits accrued by skin-to-skin care, including favorable temperature, beneficial flora, and early opportunity to “crawl” to the breast, all point to one of the best possible outcomes for mother and baby.

为了早早给宝宝洗澡而干扰肌肤接触，会增加新生儿低体温的风险，让新生儿失去母体细菌和皮脂（这会增加医院内感染的风险），还可能抑制爬行反射——可能减少有效衔乳所需的时间。肌肤接触护理的种种好处，包括适宜的体温、有益的菌丛，还有尽早“爬”到乳房的可能性，都表明其对于母婴可能带来最佳结果。

### **Mothers at Birth**

#### **刚分娩后的妈妈**

The hormones of birth and skin-to-skin care prepare a mother to need and seek her baby at the moment of birth. Oxytocin, the hormone that causes the uterus to contract, stimulates mothering feelings after birth as a mother touches, gazes at, and breastfeeds her newborn (Buckley, 2014). More oxytocin is released as a mother holds her newborn skin-to-skin than when skin-to-skin care does not occur. A mother’s brain releases beta-endorphin during skin-to-skin care. Beta-endorphin is an analgesic-like hormone that helps a mother respond to her baby, reinforce the pleasure of her interactions, and help her feel calm (Buckley, 2014).

分娩时的激素和肌肤接触使得新妈妈在分娩后需要和寻找自己的宝宝。引起宫缩的催产素会使母亲在产后抚摸、注视和母乳哺乳新生儿时，都激发母性的感觉(Buckley, 2014)。肌肤接触的妈妈会比没有肌肤接触的妈妈分泌更多的催产素。肌肤

接触时，妈妈的大脑释放贝塔内啡肽，这是一种与止痛药类似的荷尔蒙，帮她更好地回应她的宝宝，增加她与宝宝互动的愉悦感，帮她感觉平静(Buckley, 2014)。

The *Baby-Friendly Hospital Initiative*, implemented in 1998 to reduce the negative effects of some maternity practices on breastfeeding, describes 10 evidence-based steps that promote, support, and protect breastfeeding. These *Ten Steps to Successful Breastfeeding* must be implemented by maternity settings seeking “Baby-Friendly” designation (World Health Organization, UNICEF, 2009). Step 4 advises health-care professionals to help mothers implement breastfeeding within 30 minutes of birth internationally (World Health Organization, UNICEF, 2009) and within an hour of birth in the United States (Baby-Friendly USA, 2011). The interpretation of Step 4 is that all healthy mothers and babies are placed skin-to-skin immediately after birth, regardless of feeding preference, and that the mother is helped to recognize when her baby shows signs of readiness to breastfeed.

1998 年推行的《爱婴医院倡议》旨在减少对母乳喂养有负面影响的妇产实践，该倡议涵盖了促进、支持和保护母乳喂养的 10 个循证步骤。任何希望得到“爱婴”这一称号的妇产医疗机构都必须实行《成功母乳喂养的 10 个步骤》(世界卫生组织, 联合国儿童基金会, 2009)。第四步建议医疗专业人士帮助世界各地的妈妈在分娩后 30 分钟内实现母乳喂养(世界卫生组织, 联合国儿童基金会, 2009)，帮助美国的妈妈在 1 小时内实现母乳喂养(美国爱婴, 2011)。对第四步的解读是：无论期望何种喂养方式，所有健康的母婴在分娩后都立刻进行肌肤接触；帮助母亲识别宝宝准备好吃母乳的信号。

TABLE 1

表 1

**Newborns' Nine Instinctive Behaviors During Skin-to-Skin Care After Birth**

**新生儿在肌肤接触中经历的 9 个本能阶段**

Stage 阶段	Name 名称	Description 描述
1	Birth cry 出声啼哭	Occurs after birth as newborn's lungs expand 在出生时肺部扩张后发生
2	Relaxation 放松	Exhibits relaxed hands without mouth movements 嘴巴不动，手部放松
3	Awakening 醒来	Exhibits small movements of the head and shoulders 头部和肩部微动
4	Activity 活动	Exhibits mouthing, suckling, and rooting movements 嘴巴动，吮吸及寻乳动作
5	Rest 休息	Has periods of rest between any stage 时不时休息一下
6	Crawling 爬行	Approaches the breast with short periods of action, reaching the breast and nipple 慢慢接近乳房和乳头
7	Familiarization 熟悉	Licks the nipple, touches and massages the breast 舔乳头、触摸胸部
8	Suckling 吮吸	Attaches and suckles 衔乳和吸奶
9	Sleep 睡觉	Falls into restful sleep 慢慢入睡

Note. Adapted from "Newborn Behaviour to Locate the Breast When Skin-to-Skin: A Possible Method for Enabling Early Self-Regulation," by A. Widström, G. Lilja, P. Aaltomaa-Michalias, M. Dahllöf, and E. Nissen, 2011, *Acta Paediatrica*, 100, p. 2.

注: 基于《肌肤接触时新生儿的寻乳行为: 早期自我调节的一项可能方法》A. Widström, G. Lilja, P. Aaltomaa-Michalias, M. Dahllöf, 和 E. Nissen, 2011, *Acta Paediatrica*, 100, p. 2.

**Early Skin-to-Skin Care and Breastfeeding**

**早期肌肤接触和母乳喂养**

Immediate, uninterrupted skin-to-skin care for a minimum of an hour is among the most effective strategies in maternity settings to promote exclusive breastfeeding. Breastfeeding reflexes "awaken" during skin-to-skin care (Widström et al., 2011). Newborns exhibit a species-specific sequence of nine behaviors that result in finding and attaching to their mother's breast (see Table 1). The newborn's instinctive behavior while skin-to-skin, enhanced by high levels of oxytocin at birth, may help

explain why researchers have found a relationship between early skin-to-skin care and improved breastfeeding outcomes. Babies who had early skin-to-skin care were more likely to exclusively breastfeed at hospital discharge, to be exclusively breastfed after discharge, and to breastfeed for longer durations (Bramson et al., 2010; Gabriel et al., 2010; Moore et al., 2012).

立即、不受干扰地肌肤接触至少一小时，是在妇产照护环境中促进纯母乳喂养的最有效方法之一。哺乳反射在肌肤接触时被“唤醒”(Widström 等, 2011)。新生儿经历特定的一系列 9 种行为，最终帮其找到妈妈的乳房并衔乳（见表 1）。新生儿在肌肤接触时展现的本能行为由于分娩时大量释放的催产素而得到强化，这也许可以帮助解释为什么研究者发现早期肌肤接触会改善母乳喂养。经过肌肤接触的宝宝在出院时和出院后接受纯母乳喂养的几率更大，母乳喂养的持续时间也会更长。

Timing and duration of early skin-to-skin care also influence breastfeeding outcomes (Bramson et al., 2010; Gabriel et al., 2010; Moore et al., 2012). Shorter intervals between birth and the start of skin-to-skin care and longer times spent skin-to-skin after birth improved breastfeeding exclusivity and duration. No data show that results vary by mode of birth (since most studies on skin to skin are on

babies born vaginally and most studies on cesarean births are QI studies. 早期肌肤接触的时机和时长也影响母乳喂养结果 (Bramson 等, 2010; Gabriel 等, 2010; Moore 等, 2012)。出生后进行肌肤接触的时间越早, 时长越长, 就越有利于纯母乳喂养以及母乳喂养的长期持续。没有数据证明分娩方式会对母乳喂养的结果产生影响 (这是由于大部分关于肌肤接触的研究只是针对顺产的宝宝, 而大部分剖宫产的研究涉及的都是质量改进)。

## EARLY SKIN-TO-SKIN CARE AFTER VAGINAL BIRTH AND CESAREAN SURGERY

### 顺产和剖宫产后的早期肌肤接触

Following vaginal birth, direct skin-to-skin care for stable mothers and babies can begin immediately, prior to cord clamping, as a newborn is placed on the mother's abdomen, dried, and covered with a blanket (Baby-Friendly USA, 2011; Sobel et al., 2011; UNICEF, 2011; World Health Organization, UNICEF, 2009). Once the cord is clamped, the newborn then can be moved to the mother's chest.

对于健康的顺产妈妈和宝宝来说, 分娩后可以在脐带结扎之前就立即进行肌肤接触: 把擦干的新生儿放在妈妈腹部, 并盖上毯子(美国爱婴, 2011; Sobel 等, 2011; 联合国儿童基金会, 2011; 世界卫生组织, 联合国儿童基金会, 2009)。脐带结扎后可以把宝宝放在妈妈胸口。

Following cesarean surgery, skin-to-skin care for stable mothers and babies can begin in the operating room (theatre) when the mother is alert and responsive (Baby-Friendly USA, 2011; UNICEF, 2011). The vast majority of mothers who undergo cesarean surgery are alert and responsive when spinal or epidural anesthetic is used. Women who experienced skin-to-skin care during a cesarean described the experience as meaningful, were not "aware" of the surgical procedure because they focused on their newborn, and reported that they would welcome the opportunity to do so again if given the opportunity (Crenshaw et al., 2012; Phillips, 2013). No evidence exists for delaying skin-to-skin care until a mother and her baby are in a recovery room or postanesthesia care unit.

剖宫产手术后的妈妈和宝宝若状态稳定, 妈妈清醒且响应性较好, 可以在手术室进行肌肤接触(美国爱婴, 2011; 联合国儿童基金会, 2011)。接受剖宫产手术的妈妈如果采用了脊椎麻醉或硬脊膜外麻醉, 大多数都是清醒且响应性较好的。在剖宫产手术时进行肌肤接触的妈妈, 声称这种体验很有意义; 由于把注意力都放在新生儿身上, 她们甚至没有“意识到”自己还在做手术; 她们还说如果下次遇到类似的情况还会选择这种肌肤接触(Crenshaw 等, 2012; Phillips, 2013)。没有证据表明有必要推迟肌肤接触, 直到母婴到达术后恢复室或麻醉后监护室后再进行。

The intent is immediate skin-to-skin care following vaginal birth and during cesarean surgery (Baby-Friendly USA, 2011; UNICEF, 2011; World Health Organization, UNICEF, 2009). However, the meaning of immediate is frequently debated and often interpreted to mean "within 5 minutes of birth." To be designated as a baby-friendly place of birth, 80% of new mothers and the staff who care for them must report that skin-to-skin care began immediately. The only example of when immediate is described as within 5 minutes is in the unusual circumstance that a surveyor directly observes a birth. If the surveyor observes that skin-to-skin care begins within 5 minutes, it is categorized as immediate. The unintended

consequence of applying within 5 minutes to all births is that skin-to-skin care is often unnecessarily delayed for the convenience of staff to provide routine care such as assessing a healthy newborn under a radiant warmer or obtaining a birth weight. This delay occurs despite overwhelming evidence in support of immediate skin-to-skin care and the research showing the dose-response effect.

我们旨在实现顺产后立即进行肌肤接触, 以及在剖宫产手术中进行肌肤接触(美国爱婴, 2011; 联合国儿童基金会, 2011; 世界卫生组织, 联合国儿童基金会, 2009)。然而, “立即”的含义备受争议, 常常被解读为“分娩后 5 分钟内”。要成为爱婴分娩机构, 80%的新妈妈和照护她们的工作人员都必须报告立即开始了肌肤接触。唯一将“立即”定义为 5 分钟内的场合, 是当评审员直接观察分娩时, 这种情况并不常见。如果评审员观察到肌肤接触是在 5 分钟内开始的, 就会将之定义为“立即”。如果将五分钟原则套用于所有的分娩, 会导致一个意外后果: 医护人员为了常规照护之便而对肌肤接触进行不必要的推迟。这些常规照护包括用辐射加热器对健康新生儿做评估或称新生儿的体重。尽管有压倒性的证据支持立即的肌肤接触, 也有研究显示剂量反应的影响, 我们还是看到很多推迟肌肤接触的情况。

## KEEPING MOTHERS AND BABIES TOGETHER BEYOND THE MOMENT OF BIRTH

### 在分娩后持续保持母婴同室

The benefits of skin-to-skin care extend beyond the moment of birth. Whether in a maternity care setting or at home, the maternal and newborn physical and emotional need for each other continues. While together, the mother quickly learns her baby's needs and how best to care for, comfort, and soothe her newborn.

肌肤接触的好处不止在于在宝宝刚刚出生的时候。无论是在妇产照护环境或家里，母婴对彼此的生理和情感需求都是持续存在的。若母婴同处，妈妈可以快速了解宝宝的需求，了解如何以最佳方式照顾和安抚新生儿。

The interpretation of Step 7 of the Baby-Friendly Hospital Initiative informs health professionals about the evidence for keeping mothers and babies together 24 hr a day (rooming-in) to improve health outcomes (Baby-Friendly USA, 2011; UNICEF, 2011; World Health Organization, UNICEF, 2009). While together, mothers and babies have many opportunities to spend time skin-to-skin and to “practice” breastfeeding. During each opportunity to breast-feed, maternal and newborn beta-endorphin levels rise, “rewarding and reinforcing maternal and infant interactions” (Buckley, 2014). For decades, researchers have reported that mothers who room-in with their babies score higher on tests that measure mothering confidence, and babies who room-in with their mothers have more quiet sleep than those who are separated from their mothers (Keefe, 1987, 1988; Yamauchi & Yamanouchi, 1990).

《爱婴医院倡议》中对第七步的解释，向医疗专业人士提供了全天 24 小时让母婴待在一起（母婴同室）可以改善健康结果的证据（美国爱婴，2011；联合国儿童基金会，2011；世界卫生组织，联合国儿童基金会，2009）。母婴如果同室，就有更多肌肤接触的时间，可以更好地“练习”母乳喂养。每次母乳喂养时，母婴的贝塔内啡肽都会上升，“鼓励和强化母婴互动”（Buckley, 2014）。几十年来的研究都表明，与宝宝同室的妈妈对母亲角色的信心得分更高，与妈妈同室的宝宝比与妈妈分离的宝宝睡得更安静（Keefe, 1987, 1988; Yamauchi & Yamanouchi, 1990）。

Rooming-in makes breastfeeding easier. Women who room-in with their newborns make more milk, produce a copious milk supply sooner, breastfeed for longer durations, and are more likely to exclusively breastfeed compared with women who are separated from their newborns (Bystrova et al., 2009; Zenkner et al., 2013). Rooming-in appears to have a dose-response effect. Women who roomed-in with their babies were more likely to be exclusively breastfed at hospital discharge compared to women who had partial rooming-in (Zuppa et al., 2009). Skin-to-skin care while rooming-in reduced maternal physiologic stress and depressive feelings after hospital discharge, which may help to empower women in their role as mothers. Duration of breastfeeding in mothers who had frequent skin-to-skin contact while rooming-in was longer compared to mothers who spent less time skin-to-skin with their babies during the first 5 days after birth (Bigelow et al., 2014). Research also suggests that skin-to-skin care while rooming-in also may be an effective intervention for mothers who have breastfeeding difficulties and are therefore at risk for breastfeeding cessation (Chiu, Anderson, & Burkhammer, 2008).

母婴同室让母乳喂养变得更容易。与那些母婴分离的妈妈相比，母婴同室的妈妈奶水更多，分泌充沛奶水的速度更快，母乳喂养也更持久，且更容易实现纯母乳喂养（Bystrova 等，2009；Zenkner 等，2013）。母婴同室似乎会产生剂量反应的效应。与不完全母婴同室的女性相比，母婴同室的女性在出院时更可能实现纯母乳喂养（Zuppa 等，2009）。母婴同室时的肌肤接触，会降低女性在出院后的产后心理压力的和抑郁感，因而帮助她们更好地担任母亲的角色。与那些分娩后 5 天内与宝宝肌肤接触时间更少的女性相比，母婴同室、肌肤接触更频繁的妈妈，哺乳的持续时间更长（Bigelow 等，2014）。研究也显示，对那些母乳喂养有困难、有可能终止母乳喂养的女性，母婴同室时进行肌肤接触可能是一种有效的干预措施（Chiu, Anderson, & Burkhammer, 2008）。

Few randomized or quasi-experimental controlled trials have been conducted comparing separation of mothers and babies after birth with rooming-in (Jaafar, Lee, & Ho, 2012). The ethical concerns of conducting controlled trials, in light of the strong evidence from less rigorous studies, support keeping mothers and babies together to improve maternal efficacy, rest, and breastfeeding outcomes (Ball, Ward-Platt, Heslop, Leech, & Brown, 2006; Bystrova et al., 2009; Keefe, 1987, 1988).

很少有针对分娩后母婴分离与母婴同室的随机或类试验性的对照试验(Jaafar, Lee, & Ho, 2012)。根据严谨度较低的研究结果, 对照试验的伦理考量支持母婴同室来提高女性的母性自我胜任感、休息和母乳喂养的结果 (Ball, Ward-Platt, Heslop, Leech, & Brown, 2006; Bystrova et al., 2009; Keefe, 1987, 1988)。

## UNLIMITED OPPORTUNITIES FOR BREASTFEEDING: WHY IT MATTERS

### 母乳喂养的无限机会: 为何如此重要

Evidence shows that keeping mothers and babies together during and after birth improves breastfeeding outcomes, and breastfeeding is the optimal method for infant and child health and for maternal health. Replacing breastmilk with infant formula has been shown to have a negative impact on both short- and long-term child and maternal health (American Academy of Pediatrics Section on Breastfeeding, 2012; ACOG Committee on Obstetrics Practice, Committee on Health Care for Underserved, 2007; American Public Health Association, 2007; U.S. Department of Health and Human Services, 2011; World Health Organization, UNICEF, 2003).

证据显示, 分娩中和分娩后母婴同室改善了母乳喂养的结果。母乳喂养最有利于婴儿、儿童和妈妈的健康。如果将母乳替换为婴儿配方奶粉, 对于儿童和妈妈的健康有着短期和长期的不利影响(美国儿科学会, 母乳喂养部, 2012; 美国妇产科学会, 产科实践, 贫困地区卫生保健委员会, 2007; 美国公共卫生协会, 2007; 美国卫生与公共服务部, 2011; 世界卫生组织, 联合国儿童基金会, 2003)。

Exclusive breastfeeding for 6 months is among the most significant strategies to improve infant and child health and reduce childhood illness and mortality. Based on decades of research, increasing exclusive breastfeeding is essential to reduce preventable child death and to enhance a child's long-term health and well-being.

在分娩后 6 个月内进行纯母乳喂养, 是改善婴儿和儿童健康、减少儿童时期的患病和死亡

率的最有效的方法之一。根据几十年的研究, 提高纯母乳喂养率对于减少可预防的儿童死亡、改善儿童的长期健康和幸福有着至关重要的作用。

Children who are not optimally breastfed are at higher risk for short- and long-term illnesses and diseases such as diarrhea, lower respiratory infections, sudden infant death syndrome, Type 1 and Type 2 diabetes, obesity, elevated cholesterol, pneumonia, and leukemia (Ip et al., 2007; Ip, Chung, Raman, Trikalinos, & Lau, 2009). These risks increase substantially for preterm and late preterm infants and for infants born in underdeveloped countries. Risks associated with suboptimal breastfeeding for women include increased incidence of breast and ovarian cancer, Type 2 diabetes, retained gestational weight, metabolic syndrome, and myocardial infarction (Ip et al., 2007; Ip et al., 2009; Stuebe, 2009). Breastfeeding also may mitigate postpartum depression (Bigelow et al., 2012; Dennis & McQueen, 2009; Stuebe, 2009).

没有得到最佳母乳喂养的儿童, 患以下疾病的短期或长期风险就更大: 腹泻、下呼吸道感染、婴儿猝死综合征、1 型和 2 型糖尿病、肥胖、高胆固醇、肺炎和白血病等(Ip 等, 2007; Ip, Chung, Raman, Trikalinos, & Lau, 2009)。这些风险对于早产儿、晚期早产儿以及贫困地区的婴儿更大。没有进行最佳母乳喂养的女性, 更容易出现乳腺癌、卵巢癌、2 型糖尿病、产后肥胖、心肌梗塞等(Ip 等, 2007; Ip 等, 2009; Stuebe, 2009)。母乳喂养也可以缓解产后抑郁(Bigelow 等, 2012; Dennis & McQueen, 2009; Stuebe, 2009)。

In addition to costs related to maternal and pediatric morbidity and mortality, suboptimal breastfeeding

rates have significant economic costs (Bartick & Reinhold, 2010; Bartick et al., 2013). Researchers estimated at least \$14.2 billion per year in pediatric and \$18.3 billion in maternal health care costs could be attributed to poor breastfeeding rates (assuming a causal relationship between lactation and health).

次优的母乳喂养除了会增加因女性和儿童发病和死亡而带来的成本，还会造成巨大的经济损失 (Bartick & Reinhold, 2010; Bartick 等, 2013)。研究者们估算，母乳喂养不足导致的儿童医疗花费每年达到 142 亿美元，女性医疗花费每年达到 183 亿美元。

For optimal health, breastfeeding continues after the first 6 months of life, with the addition of culturally appropriate iron-rich foods. U.S. health experts (U.S. Department of Health and Human Services, 2010) recommend that breastfeeding continue for at least 1 year and international health experts recommend at least 2 years (World Health Organization, 2010).

为达到最佳的健康水平，母乳喂养应该持续到分娩 6 个月后，再添加符合本地文化的含铁辅食。美国医疗专家 (美国卫生与公众服务部, 2010) 建议母乳喂养至少持续 1 年，国际专家建议至少持续 2 年 (世界卫生组织, 2010)。

All health professionals have an ethical responsibility to promote, support, and protect breastfeeding and to be competent in breastfeeding care and

services (United States Breastfeeding Committee, 2010). Educating women about healthy birth practices, including keeping mothers and babies together, is a significant strategy for improving breastfeeding initiation, duration, and exclusivity. Ensuring evidence-based maternity policies that facilitate “no separation” is an essential responsibility for all health professionals.

所有的医疗健康从业者都有道德责任来提倡、支持和保护母乳喂养，并且能胜任母乳喂养照护和服务的工作 (美国母乳喂养协会, 2010)。向女性传授包括母婴同室在内的健康分娩实践，能极大的改善母乳喂养的催发、持续和纯母乳喂养。确保实行循证的妇产照护，促进母婴同室，是所有的医疗专业人士的基本职能。

## IMPLICATIONS

### 启示

Everyone has a role in keeping mothers and babies together after birth. Women who have their baby in a birth center or hospital can choose a maternity setting that is Baby-Friendly or working to become Baby-Friendly. They can choose a birth attendant who supports their wishes for immediate skin-to-skin care and to be with their baby during the hours and days that follow. If cesarean surgery is medically indicated, women can discuss with the health-care team their wish to begin skin-to-skin care in the operating room. Women can communicate their decisions to their family and ask for support. Childbirth educators can discuss the evidence for keeping mothers and babies together and importance of immediate, uninterrupted skin-to-skin care and exclusive breastfeeding. Those who care for women before and during birth, including midwives, nurses, physicians, and doulas, can make sure women know about the joy and health benefits of being with their baby. They can work to eliminate routines and pro-

每个人都有职责让分娩后的母婴同室。在分娩中心或医院分娩的女性，可以选择在爱婴机构、或者致力于成为爱婴机构的地方接受照护。她可以选择支持她们的接生人员，帮她实现产后的立即肌肤接触和母婴同室的意愿，且使母婴同室持续到产后好几天。如果有剖宫产的医学指征，女性可以与医护团队讨论，告诉团队她希望在手术室做立即的肌肤接触。女性可以将自己的决定告诉家人并寻求支持。分娩教育者可以讨论母婴同室的证据，立即、不受干扰的肌肤接触以及纯母乳喂养的好处。那些在产前和产中照护女性的人，包括助产士、护士、医生和导乐，要确保女性了解与宝宝同室是一种非常快乐的体验，并且对健康有诸多益处。他们可以努力消除干扰母婴同室的常规程序。

**Exclusive breastfeeding for 6 months is among the most significant strategies to improve infant and child health and reduce childhood illness and mortality.**

在出生后六个月内进行纯母乳喂养是改善婴儿和儿童健康、减少儿童发病和死亡的最有效方法之一。

## CONCLUSIONS

### 结论

What mothers and babies need most after birth is each other, with unlimited opportunities for skin-to-skin care and breastfeeding. When health professionals respect, honor, and support the physiologic need that mothers and babies have for each other after birth, they also improve the short- and long-term health outcomes for mothers and babies. Preventing separation except for compelling medical indications is an essential safe and healthy birth practice and an ethical responsibility of health-care professionals.

分娩后，妈妈和宝宝最需要的就是彼此，母婴同室能为肌肤接触和母乳喂养做最好的准备。医疗专业人士如果尊重和支持母婴这种彼此依赖的生理需求，就可以改善母婴的短期和长期健康结果。除非有明显医学指征，要避免母婴分离，这是安全健康分娩实践的关键，也是医疗健康专业人士的道德责任。

## ACKNOWLEDGMENTS

### 致谢

I would like to thank Elizabeth H. Winslow, PhD, RN, FAAN, for expert feedback on this manuscript and my husband, Henry (my favorite writing critic), for giving creative, subtle, and not-so-subtle ideas for better writing.

我谨感谢 Elizabeth H. Winslow（博士，注册护士，美国护理学会会员）对我原稿的专业反馈，也感谢我的丈夫 Henry（我最喜欢的写作评论家）为帮我提高文章质量，提出的各种新颖巧妙、深刻入微以及直接的建议。

## REFERENCES

### 参考文献

- American Academy of Pediatrics Section on Breastfeeding. (2012). Breastfeeding and the use of human milk. *Pediatrics*, 129(3), e827–e841. <http://dx.doi.org/10.1542/peds.2011-3552>
- American College of Obstetrics and Gynecologists Committee on Obstetrics Practice, Committee on Health Care for Underserved. (2013). Special report from ACOG. Breastfeeding: Maternal and infant aspects. *ACOG Clinical Review*, 12(Suppl. 1), 1S–16S.
- American Public Health Association. (2007). *A call to action on breastfeeding: A fundamental public health issue*. Retrieved from <http://www.apha.org/advocacy/policy/policysearch/default.htm?id=1360>
- Baby-Friendly USA. (2011). *Guidelines and evaluation criteria for facilities seeking Baby-Friendly designation*. Albany, NY: Author.

- Ball, H. L., Ward-Platt, M. P., Heslop, E., Leech, S. J., & Brown, K. A. (2006). Randomised trial of infant sleep location on the postnatal ward. *Archives of Disease in Childhood*, 91(12), 1005–1010. <http://dx.doi.org/10.1136/adc.2006.099416>
- Bartick, M., & Reinhold, A. (2010). The burden of sub-optimal breastfeeding in the United States: a pediatric cost analysis. *Pediatrics*, 125(5), e1048–e1056. <http://dx.doi.org/10.1542/peds.2009-1616>
- Bartick, M. C., Stuebe, A. M., Schwarz, E. B., Luongo, C., Reinhold, A. G., & Foster, E. M. (2013). Cost analysis of maternal disease associated with suboptimal breastfeeding. *Obstetrics & Gynecology*, 122(1), 111–119. <http://dx.doi.org/10.1097/AOG.0b013e318297a047>.

- Bergman, J., & Bergman, N. (2013). Whose choice? Advocating birthing practices according to baby's biological needs. *The Journal of Perinatal Education*, 22(1), 8–13. <http://dx.doi.org/10.1891/1058-1243.22.1>
- Bergström, A., Okong, P., & Ransjö-Arvidson, A. (2007). Immediate maternal thermal response to skin-to-skin care of newborn. *Acta Paediatrica*, 96(5), 655–658. <http://dx.doi.org/10.1111/j.1651-2227.2007.00280.x>
- Bigelow, A. E., Power, M., Gillis, D. E., MacLellan-Peters, J., Alex, M., & McDonald, C. (2014). Breastfeeding, skin-to-skin contact, and mother-infant interactions over infants' first three months. *Infant Mental Health Journal*, 35(1), 51–62. <http://dx.doi.org/10.1002/imhj.21424>
- Bigelow, A. E., Power, M., MacLellan-Peters, J., Alex, M., & McDonald, C. (2012). Effect of mother/infant skin-to-skin contact on postpartum depressive symptoms and maternal physiological stress. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 41(3), 369–382. <http://dx.doi.org/10.1111/j.1552-6909.2012.01350.x>
- Bramson, L., Lee, J. W., Moore, E., Montgomery, S., Neish, C., Bahjri, K., & Melcher, C. L. (2010). Effect of early skin-to-skin mother-infant contact during the first 3 hours following birth on exclusive breastfeeding during the maternity hospital stay. *Journal of Human Lactation*, 26(2), 130–137.
- Buckley, S. J. (2014). *The hormonal physiology of childbearing*. New York, NY: Childbirth Connection.
- Bystrova, K., Ivanova, V., Edhborg, M., Matthiesen, A. S., Ransjö-Arvidson, A. B., Mukhamedrakhimov, R., . . . Widström, A. M. (2009). Early contact versus separation: Effects on mother-infant interaction 1 year later. *Birth*, 36(2), 97–109.
- Chiu, S., Anderson, G. C., & Burkhammer, M. D. (2008). Skin-to-skin contact for culturally diverse women having breastfeeding difficulties during early postpartum. *Breastfeeding Medicine*, 3(4), 231–237. <http://dx.doi.org/10.1089/bfm.2008.0111>
- Crenshaw, J. T., Cadwell, K., Brimdyr, K., Widström, A., Svensson, K., Champion, J. D., . . . Winslow, E. H. (2012). Use of a video-ethnographic intervention (PRECESS Immersion Method) to improve skin-to-skin care and breastfeeding rates. *Breastfeeding Medicine*, 7(2), 69–78. <http://dx.doi.org/10.1089/bfm.2011.0040>
- Dennis, C. L., & McQueen, K. (2009). The relationship between infant-feeding outcomes and postpartum depression: A qualitative systematic review. *Pediatrics*, 123(4), e736–e751. <http://dx.doi.org/10.1542/peds.2008-1629>
- Dumas, L., Lepage, M., Bystrova, K., Matthiesen, A. S., Welles-Nystrom, B., & Widstrom, A. M. (2013). Influence of skin-to-skin contact and rooming-in on early mother-infant interaction: A randomized controlled trial. *Clinical Nursing Research*, 22(3), 310–336. <http://dx.doi.org/10.1177/1054773812468316>
- Gabriel, M., Llana Martín, I., Lopez Escobar, A., Fernandez Villalba, E., Romero Blanco, I., & Touza Pol, P. (2010). Randomized controlled trial of early skin-to-skin contact: Effects on the mother and the newborn. *Acta Paediatrica*, 99(11), 1630–1634. <http://dx.doi.org/10.1111/j.1651-2227.2009.01597.x>

- Ip, S., Chung, M., Raman, G., Chew, P., Magula, N., DeVine, D., . . . Lau, J. (2007). *Breastfeeding and maternal and infant health outcomes in developed countries* [Evidence Report/Technology Assessment No. 153]. Rockville, MD: Agency for Healthcare Research and Quality.
- Ip, S., Chung, M., Raman, G., Trikalinos, T. A., & Lau, J. (2009). A summary of the Agency for Healthcare Research and Quality's evidence report on breastfeeding in developed countries. *Breastfeeding Medicine*, 4(Suppl. 1), S17–S30.
- Jaafar, S. H., Lee, K. S., & Ho, J. J. (2012). Separate care for new mother and infant versus rooming in for increasing the duration of breastfeeding. *The Cochrane Database of Systematic Reviews*, (9), CD006641. <http://dx.doi.org/10.1002/14651858.CD006641.pub2>
- Keefe, M. R. (1987). Comparison of neonatal nighttime sleep-wake patterns in nurse versus rooming-in environments. *Nursing Research*, 36(3), 140–144.
- Keefe, M. R. (1988). The impact of infant rooming-in on maternal sleep at night. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 17(2), 122–126.
- Moore, E. R., Anderson, G. C., Bergman, N., & Dowswell, T. (2012). Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database of Systematic Reviews*, (5), CD003519. <http://dx.doi.org/10.1002/14651858.CD003519.pub3>
- Phillips, R. (2013). The sacred hour: Uninterrupted skin-to-skin contact immediately after birth. *Newborn & Infant Nursing Reviews*, 13, 67–72. <http://dx.doi.org/10.1053/j.nainr.2013.04.001>
- Sobel, H. L., Silvestre, M. A. A., Mantaring, J. B. V., III, Oliveros, Y. E., & Nyunt-U, S. (2011). Immediate newborn care practices delay thermoregulation and breastfeeding initiation. *Acta Paediatrica*, 100(8), 1127–1133. <http://dx.doi.org/10.1111/j.1651-2227.2011.02215.x>
- Stuebe, A. (2009). The risks of not breastfeeding for mothers and infants. *Reviews in Obstetrics and Gynecology*, 2(4), 222–231.
- Takahashi, Y., Tamakoshi, K., Matsushima, M., & Kawabe, T. (2011). Comparison of salivary cortisol, heart rate, and oxygen saturation between early skin-to-skin contact with different initiation and duration times in healthy, full-term infants. *Early Human Development*, 87(3), 151–157. <http://dx.doi.org/10.1016/j.earlhumdev.2010.11.012>
- United Nations Children's Fund. (2011). *How to implement Baby Friendly standards: A guide for maternity settings*. London, United Kingdom: Author.
- United States Breastfeeding Committee. (2010). *Core competencies in breastfeeding care and services for all health professionals* (Rev. ed.). Washington, DC: Author.
- U.S. Department of Health and Human Services. (2010). *Healthy people 2020: Improving the health of Americans*. Washington, DC: Author.
- U.S. Department of Health and Human Services. (2011). *The surgeon general's call to action to support breastfeeding*. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General. Retrieved from <http://www.surgeon-general.gov>
- Widström, A., Lilja, G., Aaltomaa-Michalias, P., Dahl-löf, M., & Nissen, E. (2011). Newborn behaviour to locate the breast when skin-to-skin: A possible method for enabling early self-regulation. *Acta Paediatrica*, 100, 1–7. <http://dx.doi.org/10.1111/j.1651-2227.2010.01983.x>
- World Health Organization. (2010). *Baby-Friendly Hospital Initiative*. Geneva, Switzerland: Author. Retrieved from <http://www.who.int/nutrition/topics/bfhi/en/index.html>
- World Health Organization, United Nations Children's Fund. (2003). *Global strategy for infant and young child feeding*. Geneva, Switzerland: World Health Organization. Retrieved from <http://www.who.int/nutrition/publications/infantfeeding/9241562218/en/index.html>
- World Health Organization, United Nations Children's Fund. (2009). *Baby-Friendly Hospital Initiative: Revised, updated, and expanded for integrated care*. Geneva, Switzerland: World Health Organization. Retrieved from [http://whqlibdoc.who.int/publications/2009/9789241594967\\_eng.pdf](http://whqlibdoc.who.int/publications/2009/9789241594967_eng.pdf)
- Yamauchi, Y., & Yamanouchi, I. (1990). The relationship between rooming-in/not rooming-in and breastfeeding variables. *Acta Anaesthesiologica Scandinavica*, 79(11), 1017–1022.
- Zenkner, J. R. G., Miorim, C. F. B., Cardoso, L. S., Ribeiro, J. P., Cezar-Vaz, M. R., & Rocha, L. P. (2013). Rooming-in and breastfeeding: Reviewing the impact on scientific production of nursing. *Revista De Pesquisa Cuidado E Fundamental Online*, 5(2), 3808–3818. <http://dx.doi.org/10.9789/2175-5361.2013v5n2p3808>
- Zuppa, A. A., Sindico, P., Antichi, E., Carducci, C., Alighieri, G., Cardiello, V., . . . Romagnoli, C. (2009). Weight loss and jaundice in healthy term newborns in partial and full rooming-in. *Journal of Maternal-Fetal and Neonatal Medicine*, 22(9), 801–805. <http://dx.doi.org/10.1080/14767050902994499>

---

JEANNETTE T. CRENSHAW is an assistant professor at Texas Tech University Health Sciences Center. Her professional work focuses on promoting evidence-based leadership, maternity, and preoperative fasting practices. She has consulted in China and the Middle East on implementing evidence-based maternity practices. Her leadership positions include treasurer of the United States Breastfeeding Committee and former president of Lamaze International.