Who wants to sleep alone?

New evidence in support of cosleeping and the family bed

another informative reprint from **mothering**

These articles were reprinted from *Mothering* magazine, issue 152, January–February 2009.

For more information, or to check out other available publications from *Mothering*, visit our website: *www.mothering.com*

mothering

INSPIRING NATURAL FAMILIES SINCE 1976

contents

ABOUT THE REPRINT COVER

These photos were sent to us from our community in response to a call from our art director on the mothering.com discussion forums. They are photos of what people actually do and are educational in their own right. Not every photo, however, represents what the authors of the articles in this reprint would describe as safe bed-sharing practices.

| by Lee T. Gettler and James J. McKenna

THE SCIENCE OF *sharing sleep*

An internationally recognized research team responds to public misrepresentations of cosleeping and bedsharing.

For species such as primates, the mother is the environment.
—SARAH BLAFFER HRDY[1]

Although every human female is different, there is no doubt that her body is endowed with a unique capacity to breastfeed, should she choose to do so. The human infant is likewise biologically designed to sleep next to his or her mother's body and to breastfeed intermittently throughout the night, at least for the first few years of life. In fact, nothing that a human neonate does makes sense except in light of the mother's body.[2, 3]

Pages 2–11: Photos of *Mothering* readers and online discussion board members sleeping with their families











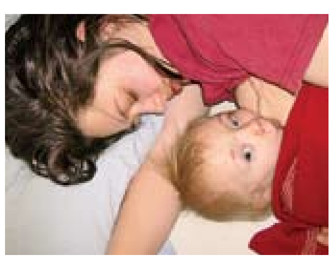


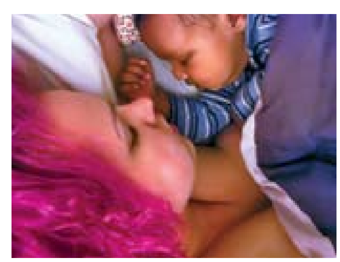


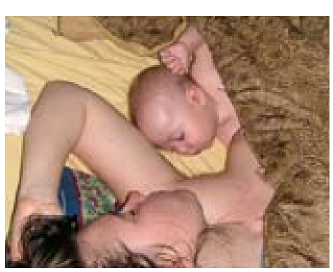


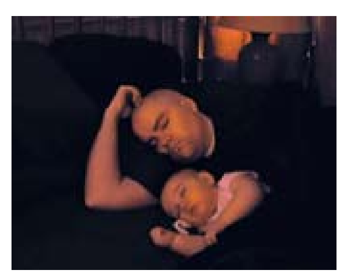










. . . nothing that a human neonate does makes sense except in light of the mother's body.





When resting on their mothers' torsos, both premature and full-term infants breathe more regularly, use energy more efficiently, maintain lower blood pressure, grow faster, and experience less stress.

WHY IS MOTHER-BABY CONTACT IMPORTANT BOTH DAY AND NIGHT?

Although infant sleeping environments vary enormously from culture to culture, the potentially beneficial regulatory and developmental effects of contact on infants do not. Whether born in Brazil, Sweden, the US, the UK, or Nepal, whether living in a hunting-gathering society or an industrialized city: *When resting on their mothers' torsos*, both premature and full-term infants breathe more regularly, use energy more efficiently, maintain lower blood pressure, grow faster, and experience less stress.[4–8] These data suggest that sensory exchanges with the mother alter and potentially regulate the immature physiology of the human infant—a primate mammal who starts life with only 25 percent of its adult brain volume, making it one of the least neurologically mature mammals at birth. Nighttime mother-infant proximity in the sleep environment likewise facilitates a variety of positive bio-behavioral experiences for the infant as well as for the mother herself.

In addition to its effect on the infant's body temperature, brain-cell connections, calorie absorption, breathing, sleep, arousal patterns, and heart rate, proximity and contact are crucial for optimal breastfeeding. Hence, it is not surprising to find that cosleeping and breastfeeding represent a highly integrated and functionally interdependent system. Among exclusively breastfeeding mothers, the choice to cosleep, specifically in the form of mother-infant bedsharing, was found to create a cascade of related changes in terms of both the behavior and the physiology of mother and infant.[9] Most relevant to our concerns in this article, McKenna and colleagues documented a significant increase not only in the number of breastfeedings, but also in the total nightly durations of breastfeeding in the bedsharing environment, compared to when babies slept alone.[10] Different laboratories have recorded different total nightly durations of breastfeeding in the bedsharing-breastfeeding dyad, but all have found that, when a baby sleeps next to mother, the number of breastfeeding sessions per night increases significantly.[11–13] Bedsharing also correlated with shorter average intervals between breastfeeding sessions. Among 70 nearly exclusively breastfeeding Latina mothers, McKenna's team found that, when bedsharing, the average interval between breastfeedings was approximately 90 minutes. When sleeping in separate bedrooms (but still within earshot), the interval was at least twice as long.[14]

The increase in frequency and duration of breastfeeding associated with bedsharing has many benefits for mother and infant alike. For the infant, some of these benefits include better immunological protection during early infancy, provided by maternal antibodies present in breastmilk; proper development of the immunological and digestive systems via exposure to maternal biological agents; and delivery of the evolved package of nutritional support, in precise quantities, crucial to fueling rapid early natal body and brain growth. Mothers who breastfeed frequently throughout

the 24 hours of the day are more likely to experience lactational amenorrhea,[15] which may reduce the risk of certain female reproductive cancers;[16] are better able to initiate and maintain breastfeeding;[17] and are frequently found to associate positive socio-emotional feelings with their breastfeeding/contact experiences with their infant, enhancing the mother's validation as one whose presence is obviously appreciated by the positive changes exhibited by her infant.[18] All of these maternal benefits are increased or modulated as a consequence of the hormonal surges of prolactin and oxytocin associated with frequent nipple stimulation and suckling by the infant.[19] These hormones are known to be important for the onset and maintenance of maternal behavior in nonhuman mammals, and, on a behavioral level, may play a role in *facilitating* or *enhancing* (not necessarily causing) the positive feelings associated with maternal experiences, especially during breastfeeding.[20]

A common misperception of and concern about bedsharing in the US is that parents choosing to bedshare will habituate to the presence of their infant and be more prone to overlaying the infant. McKenna's work demonstrated unambiguously that the *opposite* is the case, documenting that mothers who routinely bedshare exhibit an acute sensitivity to an infant's presence in the bed.[21] These mothers awoke significantly more often during the bedsharing night in the laboratory than did routinely solitary-sleeping mothers on their bedsharing night. This finding argues *against* the likelihood that bedsharing mothers who consciously choose to bedshare under safe conditions (i.e., it is not obligatory, as in some impoverished circumstances; or accidental, such as on a sofa) habituate to the presence of their babies and thus may pose a danger of overlaying them while asleep.[22] It is important to delineate differences between the active choice to bedshare safely and circumstances in which the behavior is practiced without proper precaution (see sidebar, "Safe Bedsharing").

BEDSHARING or COSLEEPING?

Bedsharing: sleeping in an adult bed with one's child

Cosleeping: sleeping in the same room, in close proximity to one's child, but not necessarily in the same bed

The human infant starts life with only 25 percent of its adult brain volume, making it one of the least neurologically mature mammals at birth.

Although many families may have no intention of bedsharing before the birth of their child, most parents end up practicing it, with varying frequencies and durations, as a means of facilitating nighttime feeding.

The leap of logic that frequently springs from the revelation that bedsharing moms wake more often is, "Oh, so bedsharing means less sleep for mothers." Surprisingly, even though they woke more often and fed their infants more frequently, routinely bedsharing mothers enjoyed as much sleep as breastfeeding mothers who routinely slept alone.[23] When you consider the opportunities for feeding and comforting granted by the different sleeping arrangements, perhaps this is not so surprising. Under most circumstances, all a bedsharing mom has to do to allow a hungry infant access to her breast is to open her nightgown, or offer tender touches and reassuring kisses to an infant who is already within arm's reach. A solitary-sleeping mother, on the other hand, must vacate the comforts of her own bed to retrieve her infant, feed or comfort him, then return to bed and attempt to get to sleep, perhaps after a half hour or more of being awake. Thus, while bedsharing mothers wake more often, it is our experience that their arousals are shorter and less disruptive of sleep than those of solitary-sleeping moms. In light of this, it is not difficult to imagine why 94 percent of the routinely bedsharing mothers evaluated their sleep following their bedsharing night in the laboratory as enough, compared with 80 percent of the routinely solitary-sleeping mothers, following their normal sleeping arrangement of sleeping alone.[24]

Although many families may have no intention of bedsharing before the birth of their child, most parents end up practicing it, with varying frequencies and durations, as a means of facilitating nighttime feeding. This has become especially true as US breastfeeding rates have rebounded from their all-time lows in the 1970s, and as the incidence of bedsharing in the US has likewise risen. For instance, in one survey, 84 percent of routinely bedsharing mothers responded, before their infants were born, that they had no intention of bedsharing.[25] Similarly, in one of her early studies in Great Britain, Dr. Helen Ball and colleagues contacted 60 mothers in prenatal interviews regarding their intentions for childcare practices. Forty of these mothers were then interviewed regarding their actual childcare practices two to four months after the birth of their infants. At this follow-up, it was found that 70 percent of new parents bedshared at least occasionally, despite the fact that 0 percent had intended to at the time of their prenatal interviews. Furthermore, 35 percent of experienced parents anticipated bedsharing, whereas 59 percent were actually doing so at the time of follow-up.[26] As is probably the case for most families, especially those engaging in breastfeeding, the motivation to bring one's baby into bed is often strong and logical, even if unplanned or unexpected, as it eases the transition from sleeping to feeding and back again.

While it remains speculative to say that solitary infant sleep is stressful for human infants, a variety of researchers have demonstrated that short-term separations of nonhuman

primate infants from their mothers leads to an array of potentially life-threatening physiological changes such as adrenal-cortisol surges, immune dysfunction, and breathing abnormalities. Furthermore, leaving nonhuman primate infants alone to sleep induces serious impairments to sleep architecture, cardiac arrhythmias, and a variety of depressive syndromes.[27–30] We know very little about the extent to which human infants experience stress when left completely alone for extended periods of time, as it is difficult to get ethical approval for such a research design, which represents a potentially dangerous, traumatic, or otherwise unsettling event for infants. However, Dr. Megan Gunnar and colleagues have shown that when nine-month-old infants are left in a room with a relatively inattentive adult, they indeed experience a physiological stress response similar in pattern (though the magnitude of the response is not as robust) to that experienced by nonhuman primate infants.[31]

It remains a curiosity of western cultures that we are largely unable to study prolonged mother-infant separation in a laboratory setting, even though our culture in the US provides us the perfect "natural experiment," with thousands of neonates and infants being left to sleep alone for long periods of time every night. However, it is reasonable to at least *suggest* that solitary infant sleep represents an evolutionarily anomalous setting for human babies. As a result, infants may experience a physiological stress response that puts them at risk of energy depletion and immunological depression, while placing undue strain on their developmentally immature respiratory, cardiac, and neurological systems. History tells us that solitary infant sleep does not pose a risk of death or severe developmental insult to most western infants, and many millions of westerners have gone on to healthy, happy lives after being left to sleep alone as infants. However, exposure to repeated stressors could prove particularly deleterious for infants with genetic or developmental neurological deficiencies, such as those believed to be involved with Sudden Infant Death Syndrome (SIDS), and could allow such deficits to find expression

SAFE BEDSHARING

- If bottle-feeding (without breastfeeding), or if mother smoked during pregnancy, practice side-by-side, separate-surface cosleeping using a crib, bassinet, or an Arm's Reach Co-Sleeper.
- If routinely bedsharing, it is best to strip the bed frame from the bed and place mattress and box springs in center of room, away from all walls. Mattresses pushed against walls tend to pull away, leaving dangerous spaces into which babies can become wedged and suffocate.
- If the bed frame is present, eliminate any spaces or gaps between mattress and head- or footboard, and keep bed away from adjacent furniture, which can create spaces into which a baby can fall and suffocate.
- No children should sleep in an adult bed with an infant.
- Families should avoid bedsharing when overly exhausted, desensitized by drugs or alcohol, or sleeping with an unrelated adult.
- Bedshare only on stiff mattresses, always lay baby on his or her back, avoid using duvets or heavy blankets, and keep infant away from pillows, or anything that obstructs airflow around infant's face.
- Never leave infant alone on an adult bed, never cosleep on a couch, sofa, recliner, or chair, and never bedshare on a waterbed.
- If bedsharing includes two adults, both should agree to be responsive to and vigilant for infant.

when they may otherwise have been averted by the regulation provided by the mother's body and her watchful eye in the safe cosleeping environment.

Bedsharing is just one of many forms of cosleeping, and while all bedsharing represents a more intimate type of cosleeping in which the caregiver and infant share a sleeping surface, not all cosleeping takes the form of bedsharing. Moreover, safe bedsharing (see sidebar, "Safe Bedsharing") can now be distinguished from unsafe bedsharing.[32] For these reasons, the terms *cosleeping* and *bedsharing* are not synonymous and should not be used interchangeably—a distinction not acknowledged by scholarly condemnations of "cosleeping" and "bedsharing."[33, 34] Furthermore, bedsharing risks or protective factors are best conceptualized as occurring along a benefits-risk continuum. For example, when highly committed, nonsmoking, breastfeeding mothers elect to bedshare for nurturing purposes, positive outcomes can be expected. On the other hand, when the physical environment for bedsharing is less than optimal, negative outcomes can occur. Suboptimal circumstances for bedsharing include smoking, bottle feeding, sharing the bed with inattentive or unaware individuals, and abusing drugs or alcohol. Other unsafe sleeping situations include sleeping with infants on couches or recliners rather than beds. Outcomes also tend to be less positive among mothers who bedshare out of necessity because they cannot afford a crib.[35, 36]

Suboptimal circumstances for bedsharing include smoking, bottle feeding, sharing the bed with inattentive or unaware individuals, and abusing drugs or alcohol. Other unsafe sleeping situations include sleeping with infants on couches or recliners rather than beds.

ROOMSHARING AS A FORM OF COSLEEPING THAT HELPS PROTECT INFANTS FROM SIDS

While recommending against bedsharing to reduce the chances of SIDS, the American Academy of Pediatrics (AAP) enthusiastically supports and recommends another form of cosleeping called *roomsharing*. In this situation, the committed caregiver and infant sleep close enough together for sensory exchanges, though not on the same surface. As defined in the scientific literature,[37] *safe cosleeping* refers to any sleeping arrangement in which a sober, committed caregiver and infant sleep close enough for each to detect, exchange, and respond to the other's sensory signals and cues, whether sleeping on the same surface or not. It seems silly to have to point this out,

PRO-FAMILY

"Babies Sleep Safest Alone opposes not only my own

Every day I wake up next to my son, Odin, as he sleeps sprawled out on his back in our bed. His arms are spread in a relaxed, open posture, and his face is an icon of tranquility. He breathes slowly and steadily, lying next to his mama, Danielle, who also slumbers like a babe. When I look in on them before leaving for work, their faces are the picture that carries me throughout the day.

When I get to the office and walk to my cubicle, I pass another sleeping infant. On his back, his arms spread, he reminds me of Odin—except that this child sleeps alone. He is a literal poster child for Babies Sleep Safest Alone, New York State's anti-bedsharing campaign. Several posters like this one hang in my office because I am a foot soldier in this campaign—a caseworker for New York's Child Protective Services (CPS). I am also a father who believes strongly in the myriad benefits of bedsharing and the deeper connection it has given me with my child. Because I have two perspectives on bedsharing—that of an insider because of my job, and that of an outsider because of the choices I've made in my home—I see that Babies Sleep Safest Alone opposes not only my own values, but the values of the very agency that created the campaign.

Launched in May 2008, Babies Sleep Safest Alone is spearheaded by New York's Office of Children and Family Services (OCFS), the body that sets guidelines for county CPS units such as mine. Guided in large part by OCFS policies, I am responsible for working with families whose children may be in danger or at risk of harm. I visit homes, interview parents, children, neighbors, teachers, and cops, and then make assessments as to whether or not a threat exists, and what sort of intervention might be necessary.

But my experience has shown me that, for most families, the family bed is very safe. A general condemnation of bedsharing ignores the unique nature of families, and is the first of three conflicts the Babies Sleep Safest Alone campaign has with existing key OCFS guidelines.

By calling bedsharing "extremely dangerous," the OCFS states that the practice should be viewed as a threat and advised against, regardless of the circumstances. This blanket approach is out of step with a belief commonly

| By Pete Angie

without the family bed?

values, but the values of the very agency that created the campaign."

held in social services: that all families are unique, presenting different situations and strengths. For example, breastfeeding improves safety for bedsharing children, while exhaustion, obesity, and the use of drugs and/or alcohol increases risk to a bedsharing child. In certain circumstances people should not sleep with their child, but instead should use a bassinet or crib placed near their bed.

2 The second conflict concerns intervention. When CPS intervenes in the interest of a child's safety, the OCFS stresses that such measures be the least intrusive possible while still mitigating the threat. The logic is simple: *Changes that are the least disruptive preserve the integrity of a family and are more likely to be followed.* Parents can be taught to create a safe sleeping environment with relatively simple actions, such as removing bulky or heavy covers and not allowing other children in the bed with an infant. However, asking mom, dad, and baby to stop bedsharing, buy a crib, and change their entire nighttime routine is highly intrusive, and is a request more likely to be ignored or only appear to be followed—for instance, by buying a crib but not using it. Education is far less invasive than prohibition, and is also more practical, especially considering that many families who use cribs often still occasionally bedshare.

3 In the event that a family does stop sleeping together before they are ready, the benefits of the family bed are lost—which is the third conflict with existing OCFS protocol. Sharing a bed helps facilitate the creation of a deep parent-child bond—something that is highly valued by OCFS, and that local offices strive to facilitate. We know that a strong bond between parents and child not only supports the child's physical and emotional health, but also increases the parents' ability to deal appropriately with the challenges of raising a kid—which, ultimately, supports a safer family. In light of the efforts the OCFS and local CPS offices currently make to support healthy families, promoting bedsharing through education seems a natural fit.

When Odin first arrived, after many long hours of labor, the hospital nurses pushed two beds solidly together so that he could sleep between Danielle and me—two glowing, grateful parents. I wonder if, today, the staff of any hospital in New York State would allow that, now that the Babies Sleep Safest Alone campaign has been launched and official warnings issued. One policy at a time, the right to bedshare may be slipping away.

Above: The author's wife, Danielle, asleep with their son, Odin

At our home, however, bedsharing is alive and well. The family bed gives me more time near Odin—I read beside him as he snoozes away, his fingers twitching as he dreams. Looking at his peaceful face before I turn out the light erases any stress lingering in my head, and he is comforted by us throughout the night as he sleeps close to me or nurses with Danielle. For the three of us, bedsharing has proven to be practical, fun, at times challenging, but always fulfilling and safe. To me, those sound like the traits of a healthy family.

Author's note: The views expressed in this article are solely those of its author and are not representative of any Department of Social Services or the Office of Children and Family Services of the State of New York.

Pete Angie lives in rural upstate New York with his wife, Danielle, and their 21-month-old son, Odin. Prior to CPS, he worked with youth in foster care, juvenile detention, and as an outdoor educator. He and his family enjoy hiking, discovering new vegan entrées, and using brooms, spoons, and other household objects to pretend (with Odin) to play upright bass, banjo, and guitar.

but the AAP seems reluctant to acknowledge that it is not the *room* that protects the baby, but the mother (or father) *in* the room, and what they do for and to their infant while cosleeping, who do the protecting. That said, this is the first time that any prestigious western medical organization has stated that a mother's presence or proximity can be critical to the survival of her infant—*and that infants should never sleep alone.*

The Philadelphia campaign specifically references the AAP recommendation, but with no mention that the AAP recommends that babies *never* sleep alone, and *always* near an adult caregiver.

Epidemiological data show that, in the presence of an adult caregiver, roomsharing infants are approximately half as likely to die of SIDS than infants sleeping either alone or in the same room with siblings.[38–41] Indeed, these findings also show that it takes a committed adult caregiver to achieve these protective effects, as the findings did not generalize to the presence of other children in the infant's room. As has been argued elsewhere,[42] this provides evidence that a mother's presence plays a proactive, protective role, putting her in the position to detect and respond to deleterious changes in her infant's status, while simultaneously inducing biological changes through her sensory exchanges that may help override inherent neurobiological deficits that increase the likelihood of SIDS.[43–45]

Recent public health campaigns in the US have included the following messages to parents: "Babies sleep safest alone" (New York State); "For you to rest easy, your baby must rest alone,"[46] and "All babies should be placed to sleep in cribs" (Philadelphia). These public health efforts represent drastic departures from the AAP recommendation in favor of roomsharing, which emphasizes the importance of parent-child proximity. The Philadelphia campaign specifically references the AAP recommendation, but with no mention that the AAP recommends that babies *never* sleep alone, and *always* near an adult caregiver. While the New York campaign is at least consistent with the AAP's message in favor of roomsharing, the unqualified public announcement that "Babies sleep safest alone," as disseminated through TV and radio advertisements, makes no such acknowledgment of the importance of caregiver-infant nighttime proximity.[47] This unequivocally gives the impression that what is best for infants is to sleep alone in a crib separated from caregivers altogether.

In both of the aforementioned campaigns, public health officials are trying to reduce the number of deaths due to *unsafe* bedsharing practices, which they erroneously imply are representative of not only all bedsharing practices, but of all cosleeping environments as well. In oversimplifying a fundamental act of human affectionate behavior and biology, they do more harm than good by delivering messages that are easily interpreted as imploring parents to leave their babies to sleep entirely separated from caregivers, against the recommendation of the AAP, and thus increasing the likelihood of SIDS. But only when sweeping public health recommendations acknowledge and respect maternal capacities, as well as the biologically appropriate emotions and motivations of mothers to sleep close to their infants, will there be any hope that these recommendations will be adopted and implemented in ways that will promote the survival and well-being of the greatest numbers of mothers and infants.

NOTES

1. Sarah Blaffer Hrdy, *Mother Nature: Maternal Instincts and How They Shape the Human Species* (New York: Pantheon Press, 1999).
2. Ibid.
3. J. J. McKenna, H. L. Ball, and L. T. Gettler, "Mother-Infant Co-Sleeping, Breastfeeding and Sudden Infant Death Syndrome (SIDS): What Biological Anthropology Has Discovered about Normal Infant Sleep and Pediatric Sleep Medicine," *Yearbook of Physical Anthropology* 50 (2007): 133–161.
4. G. C. Anderson, "Current Knowledge about Skin-to-Skin (Kangaroo) Care for Preterm Infants," *Journal of Perinatology* 11, no. 3 (September 1991): 216–226.
5. S. M. Ludington, "Energy Conservation During Skin-to-Skin Contact Between Premature Infants and their Mothers," *Heart Lung* 19 (September 1990): 445–451.
6. S. M. Ludington-Hoe, A. J. Hadeed, and G. C. Anderson, "Physiologic Responses to Skin-to-Skin Contact in Hospitalized Premature Infants," *Journal of Perinatology* 11, no. 1 (March 1991): 19–24.
7. S. M. Ludington-Hoe, A. J. Hadeed, and G. C. Anderson, "Randomized Trials of Cardiorespiratory, Thermal and State Effects of Kangaroo Care for Preterm Infants," Society for Research in Child Development Biennial Meeting (Seattle, WA: 19 April 1991).

8. S. M. Ludington-Hoe et al., "Selected Physiologic Measures and Behavior During Paternal Skin Contact with Colombian Preterm Infants," *Journal of Developmental Physiology* 18, no. 5 (November 1992): 223–232.
9. J. J. McKenna, "Cultural Influences on Infant and Childhood Sleep Biology and the Science that Studies It: Toward a More Inclusive Paradigm." In: J. Loughlin et al., eds., *Sleep and Breathing in Children: A Developmental Approach* (New York: Marcel Dekker, 2000), 99–130.
10. J. J. McKenna, S. Mosko, and C. Richard, "Bedsharing Promotes Breastfeeding," *Pediatrics* 100 (August 1997): 214–219.
11. H. L. Ball, "Breastfeeding, Bed-Sharing, and Infant Sleep," *Birth* 30, no. 3 (26 August 2003): 181–188.
12. S. A. Baddock et al., "Sleep Arrangements and Behavior of Bed-Sharing Families in the Home Setting," *Pediatrics* 119, no. 1 (January 2007): e200–e207.
13. J. Young, "Night-Time Behavior and Interactions Between Mothers and their Infants of Low Risk for SIDS: A Longitudinal Study of Room Sharing and Bed Sharing," unpublished doctoral thesis, University of Bristol (1999).
14. See Note 10.

15. P. T. Ellison et al., "The Ecological Context of Human Ovarian-Function," *Human Reproduction* 8, no. 12 (December 1993): 2248–2258.
16. J. L. Kelsey, M. D. Gammom, and E. M. John, "Reproductive Factors and Breast Cancer," *Epidemiologic Reviews* 15, no. 1 (1993): 36–47.
17. H. L. Ball et al., "Randomised Trial of Infant Sleep Location on the Postnatal Ward: Implications for Breastfeeding Initiation and Infant Safety," *Archives of Disease in Childhood* 91 (December 2006): 1005–1010.
18. R. Rigda et al., "Bed Sharing Patterns in a Cohort of Australian Infants During the First Six Months After Birth," *Journal of Paediatrics and Child Health* 36, no. 2 (2000): 117–121.
19. R. A. Lawrence and R. M. Lawrence, *Breastfeeding: A Guide for the Medical Profession*, sixth ed. (Orlando: Mosby Inc., 2005).
20. K. Uvnäs-Moberg and D. Magnusson, "The Psychobiology of Emotion: The Role of the Oxytocinergic System," *International Journal of Behavioral Medicine* 12, no. 2 (June 2005): 59–65.
21. S. Mosko, C. Richard, and J. J. McKenna, "Maternal Sleep and Arousals During Bedsharing with Infants," *Sleep* 20, no. 2 (1997): 142–150.
22. Ibid.
23. Ibid.
24. Ibid.
25. J. J. McKenna and L. E. Volpe, "Sleeping with Baby: An Internet-Based Sampling of Parental Experiences, Choices, Perceptions, and Interpretations in a Western Industrialized Context," *Infant and Child Development* 16, no. 4 (28 August 2007): 359–385.
26. H. L. Ball, E. Hooker, and P. J. Kelly, "Where Will the Baby Sleep? Attitudes and Practices of New and Experienced Parents Regarding Cosleeping with their Newborn Infants," *American Anthropologist* 10, no. 1 (1999): 143–151.
27. C. L. Coe, "Psychosocial Factors and Immunity in Nonhuman-Primates: A Review," *Psychosomatic Medicine* 55, no. 3 (1993): 298–308.
28. M. Laudenslager et al., "Possible Effects of Early Separation Experiences on Subsequent Immune Function in Adult Macaque Monkeys," *American Journal of Psychiatry* 142, no. 7 (1985): 862–864.
29. M. L. Laudenslager et al., "Behavioral and Immunological Consequences of Brief Mother-Infant Separation: A Species Comparison," *Developmental Psychobiology* 23, no. 3 (1990): 247–264.
30. M. Reite et al., "Maternal Separation in Bonnet Monkey Infants: Altered Attachment and Social Support," *Child Development* 60, no. 2 (April 1989): 473–480.
31. M. R. Gunnar et al., "The Stressfulness of Separation Among 9-Month-Old Infants: Effects of Social-context Variables and Infant Temperament," *Child Development* 63, no. 2 (1992): 290–303.
32. J. J. McKenna and S. Mosko, "Mother-Infant Cosleeping: Toward a New Scientific Beginning." In: R. Byard and H. Krous, eds., *Sudden Infant Death Syndrome: Problems, Puzzles, Possibilities* (New York: Arnold Publishing, 2001).
33. D. A. Drago and A. L. Dannenberg, "Infant Mechanical Suffocation Deaths in the United States, 1980–1997," *Pediatrics* 103, no. 5 (1999): e59.
34. S. Nakamura, M. Wind, and M. D. Danello, "Review of Hazards Associated with Children Placed in Adult Beds," *Archives of Pediatrics & Adolescent Medicine* 153 (1999): 1018–1023.
35. J. J. McKenna and T. McDade, "Why Babies Should Never Sleep Alone: A Review of the Co-Sleeping Controversy in Relation to SIDS, Bedsharing and Breastfeeding," *Paediatric Respiratory Reviews* 6 (2005): 134–152.
36. See Note 32.
37. J. J. McKenna et al., "Infant-Parent Co-Sleeping in Evolutionary Perspective: Implications for Understanding Infant Sleep Development and the Sudden Infant Death Syndrome (SIDS)," *Sleep* 16 (1993): 263–282.
38. R. G. Carpenter et al., "Sudden Unexplained Infant Death in 20 Regions in Europe: Case Control Study," *The Lancet* 363, no. 9404 (2004): 185–191.
39. E. A. Mitchell and J. M. D. Thompson, "Cosleeping Increases the Risks of Sudden Infant Death Syndrome, But Sleeping in the Parent's Bedroom Lowers It." In: T. O. Rognum, *Sudden Infant Death Syndrome in the Nineties* (Oslo: Scandinavian University Press, 1995), 266–269.
40. P. S. Blair et al., "Where Should Babies Sleep—Alone or with Parents? Factors Influencing the Risk of SIDS in the CESDI Study," *British Medical Journal* 319 (1999): 1457–1462.
41. P. Fleming et al., "Environments of Infants During Sleep and Risk of Sudden Infant Death Syndrome: Results of 1993–1995 Case Control Study for Confidential Inquiry into Stillbirths and Deaths in Infancy," *British Medical Journal* 313 (1996): 191–195.
42. See Note 3.

43. See Note 37.
44. S. Mosko et al., "Parent-Infant Co-Sleeping: The Appropriate Context for the Study of Infant Sleep and Implications for SIDS Research," *Journal of Behavioral Medicine* 16, no. 3 (1993): 589–610.
45. S. Mosko et al., "Infant Sleep Architecture During Bedsharing and Possible Implications for SIDS," *Sleep* 19 (1996): 677–684.
46. *http://dhs.phila.gov/dhsphilagovp.nsf/AttachmentsByTitle/PressRelease-SleepingSafely/$FILE/sleeping+safely+press+release.doc.*
47. *www.ocfs.state.ny.us/main/babiessleepsafestalone/.*

Go to *www.mothering.com/links* **to access our webinar**, "Cosleeping: Featuring James McKenna, Lysa Parker, Barbara Nicholson, and Paul Fleiss," and a collection of quality articles on cosleeping and bedsharing, including "The Safety of Babies," by Peggy O'Mara; "Breastfeeding & Bedsharing Still Useful (and Important) after All These Years," by James J. McKenna; "How the Stats Really Stack Up," by Tina Kimmel; and "Sleep with Me," by Meredith F. Small.

For a list of safe cosleeping tips, see *www.nd.edu/~jmckenn1/lab/* or *www.sarahjbuckley.com/articles/ten_tips_sleeping.htm*, the websites of, respectively, the University of Notre Dame's Mother-Baby Behavioral Laboratory and Sarah J. Buckley, MD.

Lee T. Gettler is Associate Director of the Mother-Baby Behavioral Sleep Lab, University of Notre Dame, Department of Anthropology; and a doctoral student at Northwestern University's Department of Anthropology.

James J. McKenna, PhD, is Director of the Mother-Baby Behavioral Sleep Lab, and holds the Rev. Edmund P. Joyce C.S.C. Chair in Anthropology, at the University of Notre Dame, Department of Anthropology.

| by Sarah J. Buckley, MD | photos by Amy C. Elliott

THE SOLACE OF THE family bed

A renowned doctor reassures parents that infant night waking is normal.

And it's safe to sleep with your kids.

Babies and sleep. Sometimes, it can seem that the two are mutually exclusive, and sleep issues can be worsened by those pervasive questions asked of all new mothers: *Is he a good baby? Does she sleep through the night?* Though well meant, such questions can leave us wondering whether we, or our babies, are displaying early signs of pathology—even social deviance—by refusing to sleep through the night. We might worry that we are allowing long-term, perhaps permanent, bad habits to develop from frequent waking that will perpetuate the bone-aching tiredness we feel every morning. We worry that we ourselves might never again sleep through the night.

In the face of these worries, and the widespread pressure to conform to social norms of infant sleep, we are unlikely to confess

And sometimes, when it's very dark and quiet, we may be comforted by images of mothers and babies all around the world, sleeping and waking through the night: a vast blanket of nocturnal mothering spreading out as the world turns to darkness, and folding away with sunrise.

our true nocturnal habits: that we sometimes bring our babies into bed with us because it's the only way we can begin to feel rested. Again, we might worry that we are risking our baby's well-being—or even life. We wonder if babies have changed in a generation, or if our foremothers, and mothers in other cultures, might have faced the same dilemmas.

And sometimes, when it's very dark and quiet, we may be comforted by images of mothers and babies all around the world, sleeping and waking through the night: a vast blanket of nocturnal mothering spreading out as the world turns to darkness, and folding away with sunrise.

Perhaps the nights aren't so bad after all.

BABIES AND SLEEP

One of the problems that our culture creates for new mothers is the belief that infant sleep is, or should quickly become, the same as adult sleep. This makes "sleeping through the night" an important goal. However, this idea, which is based on a misunderstanding of normal infant sleep, is a source of much misinformation and even suffering for mothers, babies, and families.

Mothers will recognize that their babies do not follow adult patterns of behavior in other areas, such as feeding, motor abilities, and daytime sleep, so it is logical that babies' nighttime sleep patterns will also be unique and evolving. All of this is due to the extreme immaturity of the human baby's brain and nervous system: A baby's brain is only one-quarter of adult size at birth, compared with at least one-half adult size in other animals. This makes human babies the least capable and most dependent on parental care of any species.

SEPARATION AND STRESS

In psychological terms, physical closeness with the mother, by day as well as at night, represents security and safety and is what all mammalian infants expect. Similarly, when a human baby is left isolated—that is, with no sensory contact with the mother or other caregiver—the baby's nervous system will signal life-threatening danger, and the infant is programmed, through millions of years of evolution, to protest through crying. This explains why babies will cry when we try to "put them down" in the day or night, and also explains their built-in, ongoing need for reassurance and security through physical contact.

It is possible that significant adverse effects may occur for human babies, as for other species,[1] following separation from the mother, especially in the early weeks, if separation is prolonged, and/or if the baby exhibits signs of severe stress. Severe stress is evident when a long bout of solitary distress and crying is followed by quieting, with emotional and physical withdrawal. This *protest-despair response* is associated with particularly high brain levels of the stress hormone cortisol. High cortisol levels can lead to permanent changes in important brain structures, including the amygdala and the hippocampus, which is involved with the formation of memory and is especially vulnerable to stress.[2]

These findings should make us very cautious about subjecting babies and young children to methods, such as "controlled crying" and "crying it out," designed to make babies sleep for longer periods. These methods will almost certainly trigger the protest-despair response and high cortisol levels in our babies—and, likely, in ourselves, if we are listening to our babies crying for many minutes.

MODERN SLEEP ARRANGEMENTS

Although solitary infant sleep has become normal, even required, in many Western cultures, it is actually a recent and culturally unique phenomenon.

In western cultures, bedsharing between a mother and nursing baby (usually up to two years old) was standard practice until around 150 years ago. Older children would cosleep with siblings, with a member of the extended family, or, among the upper classes, with a servant or nursemaid.[3] But as the 20th century advanced, smaller and increasingly affluent families began to build houses with separate sleeping quarters, so that each child could sleep alone. The myth arose that "crib death" or "cot death" was caused by mothers overlaying and smothering their babies; this misinformation further frightened mothers away from sleeping with their babies.[4] Recent recommendations in relation to Sudden Infant Death Syndrome (SIDS) and cosleeping have maintained the cultural bias toward solitary infant sleep.[5]

However, this shift to solitary sleep has not been a global phenomenon—worldwide, mother-infant cosleeping is still widespread.[6, 7] A 1971 anthropological survey of 186 cultures found that, in every culture, the baby slept in sensory proximity to a person, and that in two-thirds of cultures mother and baby shared a bed.[8] More recent studies show that cosleeping is still widely practiced; for example, a 2000 US survey found that 47.3 percent of parents reported sleeping with their babies at some time, with around 13 percent of babies usually sharing an adult bed at night.[9]

Note that cosleeping, and especially bedsharing, is likely to be significantly underreported, as many parents who bring their babies into their bed at some time may not categorize themselves as "bedsharing."[10] A UK study that asked more detailed questions found that 70 percent of UK parents had bedshared with their babies at some time in the first three months.[11]

THE SAFETY OF COSLEEPING

In the developed world, SIDS is the most common cause of death for infants between the ages of one month and one year; the incidence of SIDS peaks between the ages of two and four months. In the last few decades, researchers

have investigated many factors that may increase or reduce the risk of SIDS, including infant sleeping practices. One breakthrough has been the identification of sleeping prone (face down) as a major risk factor, and global "Back to Sleep" awareness campaigns have drastically reduced the incidence of SIDS, especially in those westernized countries where SIDS rates have been high. The more recent studies discussed below have investigated the interactions between SIDS and bedsharing, and while the conclusions remain controversial, some light has been shed in this area.

Several large, excellent case-control studies have looked at the relationship between bedsharing and SIDS, controlling for (i.e., taking into account) many other factors known to influence SIDS risks. In a large and extremely detailed UK study, Peter Blair and colleagues found that, once statistical consideration was made for maternal alcohol use, maternal smoking, use of duvets (comforters, continental quilts), extreme parental tiredness, and household overcrowding, bedsharing was not a risk factor for SIDS. These factors were especially important for infants younger than 14 weeks.[12] Similarly, a large New Zealand study found that bedsharing was a risk factor for SIDS only if the mother smoked, and/or had smoked during pregnancy.[13] A study from urban Chicago found no increased risks when a baby shared the bed with only the (nonsmoking) parents.[14]

Other researchers have also noted that, in cases of SIDS, bedsharing seems to cluster with other risk factors, such as: adolescent mothers; poverty; black race; baby sleeping in prone position; presence of bedding hazards, including the baby being overlaid by pillows or other children sharing the bed; and sleeping on a sofa or other unsafe surface.[15] Case-control studies that have found an increased risk of SIDS for bedsharing babies have generally not accounted for all of these factors, especially the presence of bedding hazards.

Bedsharing and other forms of cosleeping are also increasing in popularity, making it even more important to inform parents how to safely bedshare. This approach has been endorsed by organizations such as UNICEF,[16] the Academy of Breastfeeding Medicine,[17] and the Royal Australasian College of Physician and Surgeons, Pediatrics and Child Health Division.[18]

SIMPLE SLEEP WITH TIRED CHILDREN

However safe and evolutionary bedsharing may be, it is not a holy grail of parenting, and may not suit every mother and baby. Many families, including those from other cultures, have adapted other forms of cosleeping to suit themselves.

For example, if parents need more space in the night than bedsharing permits, they can consider having a cot, crib, cradle, or "sidecar" next to the bed or in the same room. Given the results of the studies cited, I always encourage parents to at least bring a young baby into their bedroom. James J. McKenna and Thomas McDade suggest that safe cosleeping allows for supervision of the baby with at least two senses: in such arrangements, babies can be both heard and seen.

Babies and young children will usually fall asleep more readily when they have company and thus feel more secure. Breastfed babies, like their mothers, also benefit from the release of relaxing hormones, including beta-endorphin and oxytocin, which together make breastfeeding Mother Nature's best sleeping potion. Many mothers, myself included, also find it easy and enjoyable to breastfeed older babies and even toddlers to sleep, especially for daytime naps.

SIMPLE SLEEP FOR TIRED PARENTS

Perhaps all the fuss about babies and sleep isn't really about our babies'

Mothers will recognize that their babies do not follow adult patterns of behavior in other areas, such as feeding, motor abilities, and daytime sleep, so it is logical that babies' nighttime sleep patterns will also be unique and evolving.

These findings should make us very cautious about subjecting babies and young children to methods, such as "controlled crying" and "crying it out," designed to make babies sleep for longer periods.

ability to sleep through the night, but about our own perceived need for uninterrupted sleep. Research and anecdotes from other cultures show that this is not a universal expectation,[19] and that, worldwide, most new mothers would not say that a baby or child had a sleep problem because he or she woke frequently at night.[20]

Perhaps if we can focus more on our own need for rest, simple solutions may arise. For example, I recommend a daytime nap for all mothers of young children. At least an hour spent horizontal while the baby sleeps is ideal, and can often be combined with a rest or sleep time for other children; even 15 minutes can be helpful. This is usually a better investment in family sanity than time spent doing domestic or other work while the baby sleeps. It is important to remember—and, perhaps, to remind others—that this need for extra rest passes as babies mature.

Sharing parenting responsibilities with a spouse or other adult is also ideal; many fathers excel at, and enjoy, a morning or evening shift with their babies and other children. Again, during this time-out I recommend paring back other commitments and expectations and focusing on rest and restoration, or another replenishing activity. When my nights were busy with my own babies and small children, my rule of thumb was to be in bed for 12 hours; for example, from 8 p.m. to 8 a.m.

Mothers who work full-time outside the home may find this more challenging, but may also enjoy the intimacy and extra contact that cosleeping provides, using what Alison Barrett, a Canadian obstetrician and mother of four, describes as "reverse cycle mothering."[21]

CONCLUDING WITH A LITTLE REST

Day and night, caring for a young baby is a huge task for which mothers need as much support and rest as possible. Australian cartoonist Michael Leunig has inspired me to take many restful interludes during the intense years of early parenting. His mythical exchange between cartoon heroes Mr. Curly and Vasco Pyjama on the subject "What is worth doing and what is worth having"[22] ends in this way:

"I gently urge you Vasco, do as we do in Curly Flat—learn to curl up and rest—feel your noble tiredness—learn about it and make a generous place for it in your life, and enjoyment will surely follow. I repeat: it's worth doing nothing and having a rest."

NOTES

1. N. J. Bergman, "Skin-to-Skin Contact and Perinatal Neuroscience," paper presented at Capers Breastfeeding Seminar, "Breastfeeding: A Lifelong Investment" (Brisbane, Australia: 13 May 2006).

2. M. H. Teicher et al., "Developmental Neurobiology of Childhood Stress and Trauma," *Psychiatric Clinics of North America* 25, no. 2 (June 2002): 397–426, vii–viii.

3. T. Thevenin, *The Family Bed* (New York: Perigee Trade, 2002).

4. Ibid.

5. American Academy of Family Physicians, AAFP Policy Statement on Breastfeeding (2005): *www.aafp.org/x6633.xml*.

6. M. Small, *Our Babies, Ourselves* (New York: Random House, 1998).

7. E. A. Nelson et al., "International Child Care Practices Study: Infant Sleeping Environment," *Early Human Development* 62, no. 1 (April 2001): 43–55.

8. H. Barry and L. M. Paxson, "Infancy and Childhood: Cross-Cultural Codes," *Ethology* 10 (1971): 466–508.

9. M. Willinger et al., "Trends in Infant Bed Sharing in the United States, 1993–2000: The National Infant Sleep Position Study," *Archives of Pediatrics & Adolescent Medicine* 157, no. 1 (January 2003): 43–49.

10. Ibid.

11. H. L. Ball, "Breastfeeding, Bed-Sharing, and Infant Sleep," *Birth* 30, no. 3 (September 2003): 181–188.

12. P. S. Blair et al., CESDI SUDI research group, "Babies Sleeping with Parents: Case-Control Study of Factors Influencing the Risk of the Sudden Infant Death Syndrome," *British Medical Journal* 319, no. 7223 (4 December 1999): 1457–1461.

13. E. A. Mitchell et al., "Risk Factors for Sudden Infant Death Syndrome following the Prevention Campaign in New Zealand: A Prospective Study," *Pediatrics* 100, no. 5 (November 1997): 835–840.

14. F. R. Hauck et al., "Sleep Environment and the Risk of Sudden Infant Death Syndrome in an Urban Population: The Chicago Infant Mortality Study,"

Pediatrics 111, no. 5, Part 2 (May 2003): 1207–1214.

15. B. M. Ostfeld et al., "Sleep Environment, Positional, Lifestyle, and Demographic Characteristics Associated with Bed Sharing on Sudden Infant Death Syndrome Cases: A Population-Based Study," *Pediatrics* 118, no. 5 (November 2006): 2051–2059.

16. UNICEF UK Baby Friendly Initiative with the Foundation for the Study of Infant Deaths, *Sharing a Bed with Your Baby: A Guide for Breastfeeding Mothers* (London: 2005): *www.babyfriendly.org.uk/pdfs/sharingbedleaflet.pdf.*

17. The Academy of Breastfeeding Medicine, *Guideline on Co-sleeping and Breastfeeding, Protocol* 6 (New Rochelle, NY: 2003).

18. Royal Australian and New Zealand College of Physicians Paediatrics and Child Health Division, *Breastfeeding* (Sydney, Australia; Wellington, New Zealand: June 2007).

19. See Note 6.

20. See Note 6.

21. A. Barrett, "X-treme Breastfeeding," paper presented at "Breastfeeding: Making a Difference" (Brisbane, Australia: 2 March 2006).

22. M. Leunig, *The Curly-Pyjama Letters* (Melbourne, Australia: Penguin Books Australia, 2001).

FOR MORE INFORMATION

Publications

McKenna, James J. *Sleeping with Your Baby: A Parent's Guide to Cosleeping*. Platypus Media, 2007.

"Sleeping with Your Baby: The World's Top Scientists Speak Out," reprint of *Mothering* 114 (September–October 2002).

UNICEF UK Baby Friendly Initiative with the Foundation for the Study of Infant Deaths, *Sharing a Bed with Your Baby: A Guide for Breastfeeding Mothers* (London: 2008): *www.babyfriendly.org.uk/pdfs/sharingbedleaflet.pdf.*

Infant Furniture

Cribs: *www.aap.org/family/inffurn.htm*

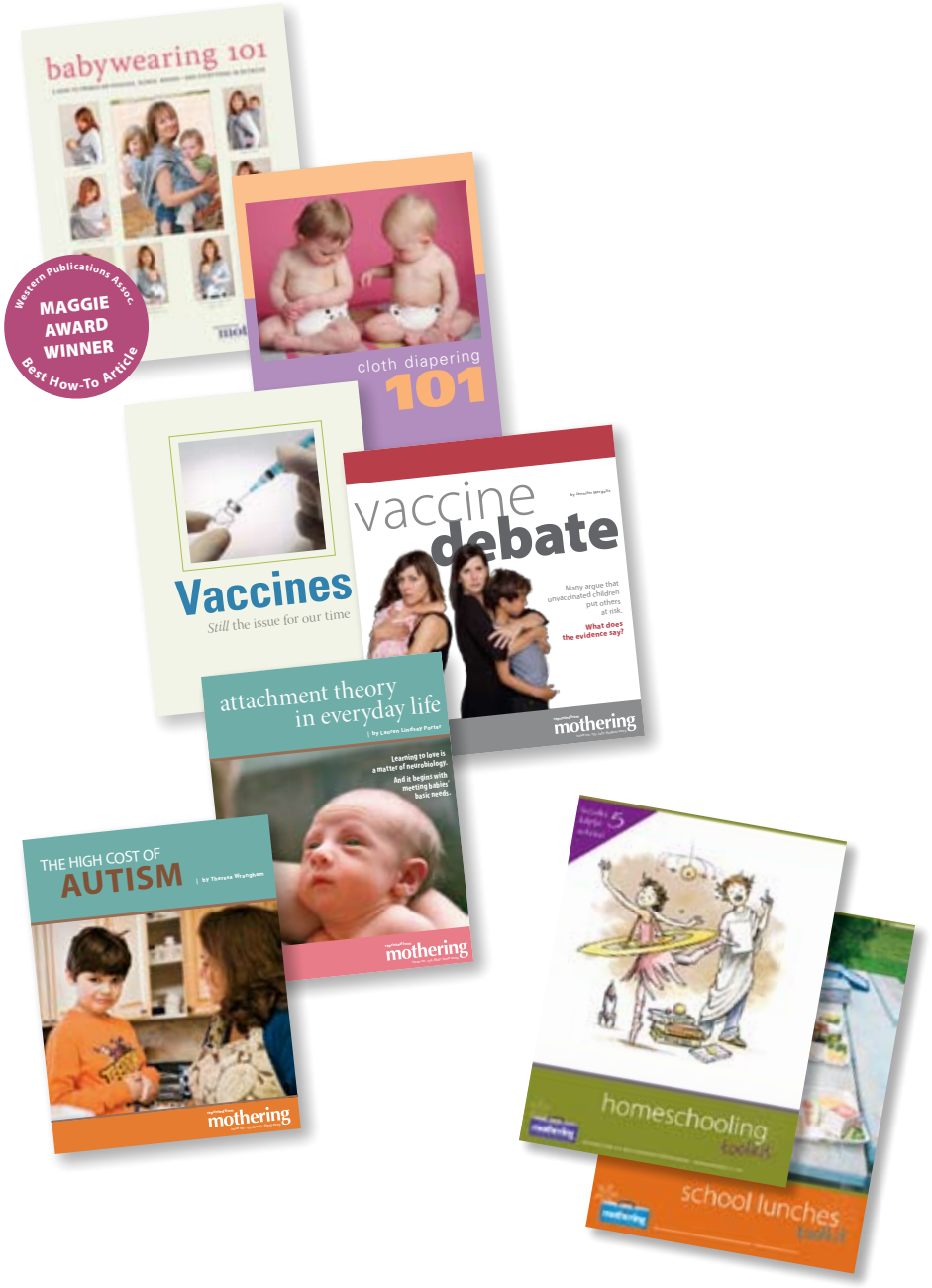
Humanity Family Bed Co-sleeper: *www.humanityinfantandherbal.com/humanityfamilybed.html*

This article is abridged and excerpted from Gentle Birth, Gentle Mothering: A Doctor's Guide to Natural Childbirth and Gentle Early Parenting Choices *(Berkeley, CA: Celestial Arts, 2009).*

Want **more from Sarah Buckley?** Visit *www.mothering.com/links* to access other articles Sarah has written for *Mothering*, including: "The Hidden Risks of Epidurals," "The Amazing Placenta," "Ecstatic Birth," and "Weighing the Risks: What You Should Know about Ultrasound."

Sarah J. Buckley, MD, is a family physician by training, and currently a full-time mother and writer. Sarah lives near Brisbane, Australia with the love of her life, Nicholas, and their four children: Emma (18), Zoe (15), Jacob (13), and Maia Rose (8). For more about Sarah and her writings, see www.sarahjbuckley.com.

Amy C. Elliott is an editorial photographer based in New York City. Her work has appeared in more than 500 different magazines, books, and newspapers.



SHOP mothering

Check out more reprints and toolkits at mothering.com!