

Massachusetts Breastfeeding Coalition on SIDS

The Massachusetts Breastfeeding Coalition has just posted its comments on the AAP's new recommendations to reduce SIDS. This takes an evidence-based look at the issues and may help sort through several of the more bewildering recommendations that the evidence does not support.

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AAP releases controversial guidelines on SIDS prevention Oct 15, 2005

On October 10, the American Academy of Pediatrics released new recommendations aimed at further reducing the incidence of Sudden Infant Death Syndrome (SIDS). Press coverage emphasized new recommendations on the avoidance of bedsharing and the recommendation to use pacifiers, and downplayed widespread concerns among researchers, infant sleep and breastfeeding experts. The media also largely overlooked other aspects of the AAP statement that, while less controversial than bed-sharing and pacifiers, are areas that also need to be addressed in SIDS prevention.

SIDS, also known as crib death, is diagnosed when an otherwise healthy infant is found dead, and no other obvious cause can be found after thorough investigation. Death by suffocation, for example, is ruled out.

It is estimated that 2300 babies die of SIDS each year. The incidence has been reduced by the "back to sleep" campaign. Other known risk factors for SIDS are maternal smoking during pregnancy, overheating the infant, use of soft sleeping surfaces such as couches or waterbeds, and use of pillows, sheets, and blankets in the infant's sleep environment. The Academy of Breastfeeding Medicine, an international organization of physicians, has also released a statement noting that breastfeeding itself is protective against SIDS, and strongly disagrees with the AAP recommendations.

In the new recommendations, the five-member task force strengthened the Academy's advice that infants be put "back to sleep" - that is, that newborns not be put down to sleep prone (on their tummies or sides). This advice is well supported by empirical evidence, not least by the decline in SIDS rates in the US since the "back to sleep" recommendation was initiated in the 1990s. The task force also notes that 20% (or 1 in 5) SIDS deaths occurs when the infant is not being cared for by a parent - and reports that as many as one quarter of childcare providers, including licensed daycare centers, are not aware of the "back-to-sleep" recommendation.

The group goes on to recommend that parents "consider offering a pacifier at night and at naptime," although use of pacifiers should be delayed until one month of age

in breastfeeding infants, until breastfeeding can be well-established. They also recommend that babies should sleep near parents, but in a separate sleep environment such as crib, bassinet, or cradle. They note that safety standards for attachable "co-sleepers" have yet to be established by the Consumer Product Safety Commission. Other recommendations include a firm sleep surface; avoiding smoke exposure to baby both pre- and postnatally; avoiding overheating; avoiding commercial devices marketed to reduce the risk of SIDS, including home monitors; encouraging tummy time while awake; and ensuring that all involved in a baby's care are aware of these recommendations.

The new recommendations on pacifiers and bedsharing, upon which so much attention has been focused are controversial. Many health care providers, breastfeeding authorities, and infant sleep experts question the strength of some of the underlying evidence. Pacifiers are linked with dental problems, fungal infections, ear infections, gastrointestinal infections, and breastfeeding difficulties.

Bedsharing facilitates breastfeeding. If the public follows these recommendations, some women may avoid breastfeeding or wean prematurely due to fatigue, difficulties with milk supply, and other problems.

Evaluating the strength of the evidence:

Pacifiers

Both the pacifier and bed-sharing recommendations are based on case-control studies. In this type of study, researchers compare babies who died from SIDS to other "control" babies who did not die from SIDS. It's difficult to choose "control" babies in a way that is truly representative of the general population. In addition, this type of study cannot prove cause and effect.

The recommendation on pacifiers is based on case-control studies showing lower rates of SIDS in babies who went to sleep with pacifiers. In the same issue of Pediatrics in which the recommendations were issued, a large meta-analysis on pacifier use and SIDS was published by Fern Hauck et al. Dr. Hauck was also one of the five members of AAP panel, and her meta-analysis put together the most definitive data on pacifiers and SIDS. Of 384 studies, the group analyzed only 7 studies which met quality inclusion criteria. All 7 studies were case-control; that is, known cases of SIDS were compared to matched babies without SIDS. Parents were asked questions about pacifier use after the baby's death. The meta-analysis found that babies whose parents reported that they usually used pacifiers, but did not use one on the night in question, were more likely to have had SIDS. The AAP task force extrapolated this finding to recommend that ALL babies be put to sleep with pacifiers.

One problem with this approach is that the association with SIDS was not found in babies who did not usually use pacifiers. We do not know if pacifiers themselves decrease the risk. We also do not know why these babies were using pacifiers to begin with - did they already have breathing problems and thus needed pacifiers or did the pacifiers create a dependency on them for breathing and arousal regulation? Were they breastfed or not? Breastfed babies may be less likely to use pacifiers and some data link breastfeeding, itself, to a lower risk of SIDS. The articles from the meta-analysis do not distinguish whether it is the absence of a pacifier (eg, babies who never use them) or whether it is being accustomed to or dependent on a pacifier but then being denied it that puts the baby at risk.

One theory about SIDS is that it arises from a deficit in arousal responses to a life-threatening situation. Infants dying of SIDS typically have less mature autonomic function and delayed neuronal maturation that affects the arousal pathway in the brain. Using a pacifier increases arousability, something which is already present in a breastfed infant. Arousal thresholds from sleep are different between breastfed and bottle-fed babies. Breastfed babies are more easily aroused from active sleep at 2-3 months of age than formula fed babies. This age coincides with the peak incidence of SIDS. Breastfeeding a baby during the critical risk period for SIDS (2-4 months) "covers" the period of time when reduced arousal capability impairs the infant's ability to respond to life threatening situations.

The retrospective nature of the studies means that parents of SIDS babies may be likely to remember things differently than parents of control babies. There were many things the studies did not ask, such as whether parents were using any of the sleep training programs (Ezzo, Ferber, Baby Whisperer, etc) that deliberately train babies to sleep soundly through the night, especially during the peak time of night when SIDS occurs.

While the AAP task force acknowledged data linking pacifiers to ear infections and dental problems, it was unconvinced by data associating pacifiers with breastfeeding difficulties. However, because pacifiers can mask signs of hunger, it is possible for a mother to put a baby to bed with a pacifier before he is done nursing. On an ongoing basis this may lead to a diminishing milk supply, an increased likelihood of formula supplementation, and increased risks of illnesses associated with lack of breastfeeding.

Even though the statement advises that breastfed babies not be given a pacifier until one month of age, and that babies not be "forced" to take a pacifier, the weight of the advice to "prevent SIDS by using pacifiers" may be uppermost in many parents' minds.

Evaluating the Evidence:

Bedsharing

Bedsharing is very common. An Oregon study published in October 2005 (Lahr et al, Pediatrics) found that 35.2% of new mothers bedshared always or almost always, and an additional 41.4% bedshared sometimes. While mothers who smoke are advised not to bedshare, this study found that they bedshared just as often as nonsmokers.

Many case-control studies have shown an association (not causality) with SIDS only in certain situations, such as families where mothers smoke. A July 2005 study from Scotland (Tappin et al, J. Pediatrics) found that SIDS risk was increased in babies who slept with 2 adults, especially if the baby was between two parents, and found the risks were highest in babies under 11 weeks of age. This study, like many others, assessed bed-sharing alone as a risk factor (rather than the environment within which the bed-sharing occurred), did not assess the presence of parental alcohol use at the time of bed-sharing, and did not include breastfeeding in the analysis. (It did note that only "16 [of 46] SIDS infants who bedshared for some time during their last sleep were still being breastfed.") Other studies have linked breastfeeding with a lower incidence of SIDS.

As noted, one theory on the cause of SIDS is that babies are not arousable enough, and stop breathing as a result. James McKenna, a leading investigator in mother / infant sleep patterns, has found that babies who bedshare and breastfeed have more regular arousals which are coordinated with those of their mothers. He holds that from an anthropological perspective, co-sleeping is the evolved context of human infant sleep development in which mother and baby respond to each other's breathing and movements. In their acknowledgments, the AAP task force authors note that they received reports from consultants including Dr. McKenna, but that "the consultants do not necessarily agree with the evidence, analysis and recommendations set forth in this document."

It's unclear whether the advice not to bedshare will adversely affect breastfeeding. However, when a baby is nursing every two hours during the night, the mother can be expected to suffer significantly more fatigue if she has to get up after each feed and put the baby back in a crib. Conceivably, some women may stop breastfeeding, and others may keep the baby in bed with them against recommendations, as they can get considerably more rest this way.

Potential Public Health Implications

It is not possible to predict from available evidence that SIDS would be reduced if parents followed all of the new AAP recommendations. However, since media coverage of the new guidelines highlighted only the recommendations to avoid bed-sharing and introduce pacifiers, it is possible that some families will follow only these two guidelines. Unfortunately, both of these interventions have potential adverse effects on breastfeeding. Public health interventions might better target other areas, including the alarmingly high rate of prone sleeping in daycare centers.

Similarly, infant bedding manufacturers continue to market crib bumpers, pillows, quilts and blankets that have been associated with SIDS risk.

It is also important to note that SIDS is a rare occurrence, albeit a devastating one, and one whose cause is not well understood.

However, breastfeeding affects many aspects of maternal and child health, and absence of exclusive breastfeeding or early weaning is linked with higher rates of other serious diseases such as obesity and its complications, diabetes, childhood cancers, and serious infections. In mothers, absence of breastfeeding or early weaning is linked with increased rates of breast cancer, ovarian cancer, and diabetes.

Thus, if this new AAP policy discourages sustained exclusive breastfeeding, it may not be entirely beneficial for public health.

Public Accountability and Conflicts of Interest:

The new AAP statement raises many questions: Why do so many licensed childcare providers engage in the known, dangerous practice of putting babies to sleep on their bellies? When the parents hire licensed care providers, aren't the licensing organizations accountable for ensuring that providers do not engage in unsafe practices?

Next, we know that sheets, pillows and blankets in a child's sleep environment increase risk of death, and yet such products for babies are routinely sold, and packaged with crib bumpers. Why is this allowable?

Next, why hasn't the Consumer Product Safety Commission yet evaluated the safety of co-sleeper devices?

Finally, SIDS organizations such as CJ SIDS and FirstCandle, for which Dr. Hauck is a board member, have received funding from pacifier manufacturers and formula

companies such as Ross and Mead-Johnson. The AAP itself has also received millions of dollars from formula companies. It's unclear if these donations have resulted in any conflict of interest with the researchers or with AAP, but it is clear that the new recommendations could increase sales of infant formula and pacifiers.

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