

Safe Infant Sleep

Sudden Infant Death Syndrome (SIDS) is defined as:

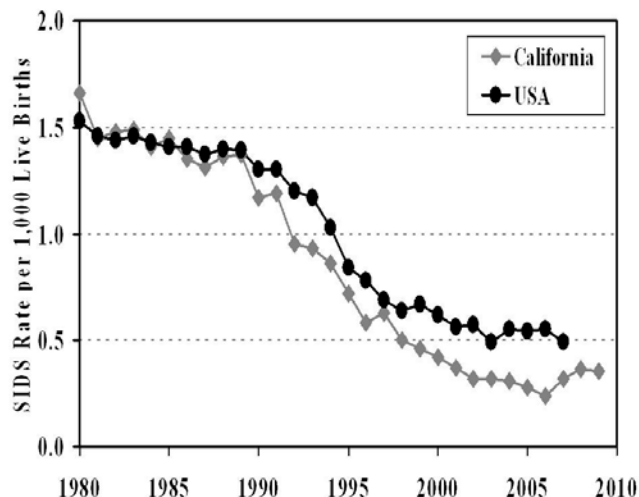
"The sudden unexpected death of an infant, under one-year of age, with onset of the fatal episode apparently occurring during sleep, that remains unexplained after a thorough investigation, including performance of a complete autopsy, and review of the circumstances of death and the clinical history".

The essential features are that the death was unexpected on the one hand, and unexplained on the other. It is the most common cause of infant death between the ages of 1-month and 1-year. However, the SIDS rate has fallen by over 50% in the U.S., and by over 75% in California, using knowledge about dangerous sleeping environments in public education campaigns to prevent these.

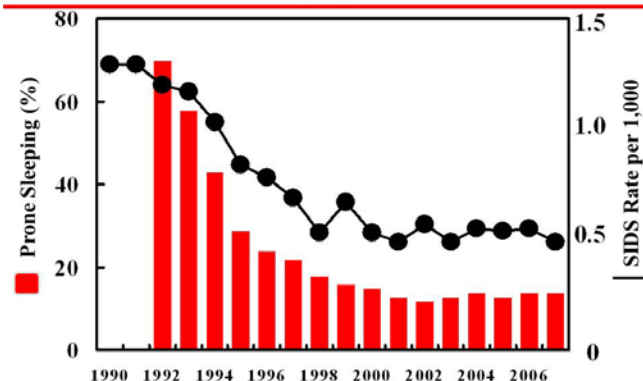
In 2011, the American Academy of Pediatrics (AAP) defined risk factors for unsafe infant sleep, and for increasing the risk of SIDS, and made the following recommendations:

- 1. Back to Sleep for every sleep—To reduce the risk of SIDS, infants should be placed for sleep in a supine position (wholly on the back) for every sleep by every caregiver until 1 year of life. Side sleeping is not safe and is not advised.**

The SIDS rate has been decreased by over 50% in the U.S., and by over 75% in California, due to public health campaigns encouraging babies to sleep on their backs. If the baby is on the stomach, the food tube (esophagus) is above the (windpipe) trachea. Thus, any food which is spit up will roll out of the food tube and drop by gravity into the wind pipe. On the other hand, if the baby is on the back, food regurgitated will not go against gravity to get into the windpipe and the lungs. The side sleeping position is also unsafe, because babies on the side tend to roll onto their backs.



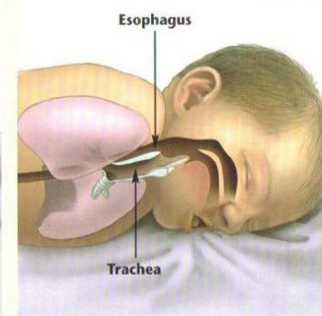
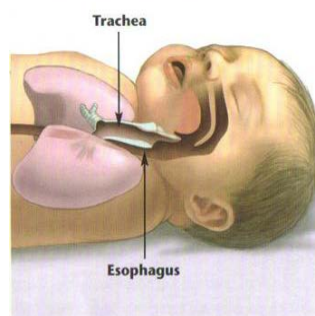
U.S. Prone Sleeping and SIDS Rate



M. Willinger, et al. *J. Amer. Med. Assoc.*, 280: 329-335, 1998.
Colson, E.R., et al. *Arch. Pediatr. Adolesc. Med.*, 163: 1122-1128, 2009.

Supine

Prone



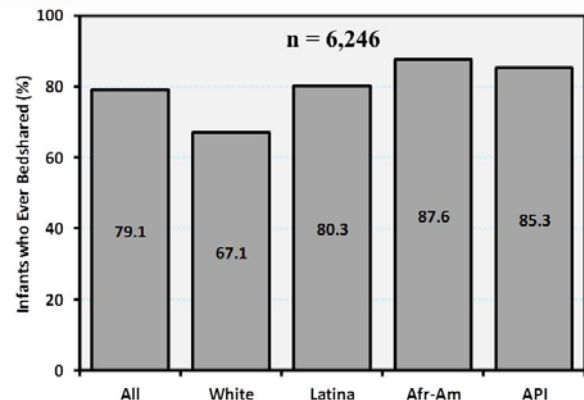
2. Use a firm sleep surface—A firm crib mattress, covered by a fitted sheet, is the recommended sleeping surface to reduce the risk of SIDS and suffocation. Use safe firm mattresses, free of hazards, not in adult beds. Sitting devices are not recommended for routine sleep.

3. Room-sharing without bedsharing is recommended—There is evidence that this arrangement decreases the risk of SIDS by as much as 50%. In addition, this arrangement is most likely to prevent suffocation, strangulation, and entrapment that might occur when the infant is sleeping in an adult bed.

There is no evidence that bedsharing is associated with any physiological protective effect. It has been shown to: (1) Increase breastfeeding; (2) Not decrease apnea; (3) Not stimulate breathing; (4) Increase arousals, but the baby wakes the mother; and (5) Decrease deep sleep. Thus, there is no apparent physiological protection.

A number of epidemiological studies show bedsharing is associated with an increased risk for SIDS. Bedsharing environments particularly associated with an increased risk for SIDS or death include: (1) Infant <3-months of age; (2) Parent cigarette smoking; (3) Parent is excessively tired; such as sleep deprivation (<4-hours sleep the previous night); (4) Parent depressant medication or alcohol use; (5) With non-parent or multiple persons; (6) Soft or unsafe bed; (7) Duvets, pillows, or soft covers; and (8) Sleeping on a sofa, armchair, or couch.

Infant Bedsharing in Los Angeles County



Los Angeles Mommy and Baby (LAMB) Project, 2007
National Child and Adolescent Health Research, Evaluation, and Planning Unit
Los Angeles County Department of Public Health
Health Resources and Services Administration (HRSA) R40MC06635



The American Academy of Pediatrics recommends: (1) Room-sharing, with the infant in a crib in the parents' room next to the adult bed, is safest, and is safer than bedsharing; (2) Infants brought to bed for breastfeeding should return to a separate crib; (3) Do not bedshare if parents smoke cigarettes; (4) Do not bedshare if the parents' arousal is depressed (alcohol, drugs, sleep deprived <4-hours sleep the night before); and (5) Do not sleep with an infant on a sofa or chair.

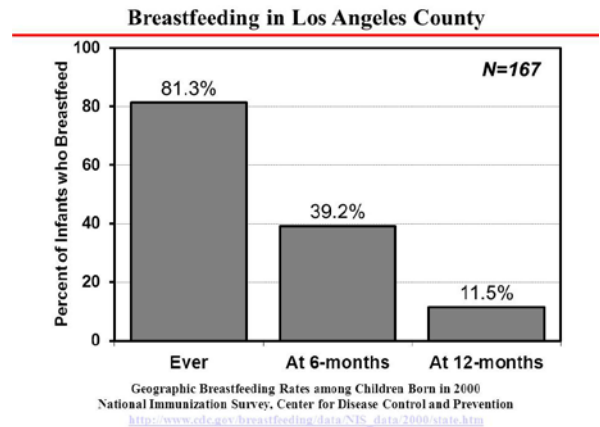
4. Keep soft objects and loose bedding out of the crib to reduce the risk of SIDS, suffocation, entrapment, and strangulation.

Soft objects (pillows, pillow-like toys, quilts, comforters, and sheepskins) should not be used. Loose bedding (blankets and sheets) might be hazardous, and should not be used. Bumper pads are not recommended. Infant sleep clothing designed to keep the infant warm without the possible hazard of head covering or entrapment should be used.



5. Breastfeeding is recommended. The protective effect of breastfeeding increases with exclusivity. However, any breastfeeding has been shown to be more protective against SIDS than no breastfeeding.

Breastfeeding is associated with a reduced risk of SIDS. Mothers should exclusively breastfeed or feed with expressed human milk for the first 6-months. The protective effect of breastfeeding increases with exclusivity. However, any breastfeeding is more protective against SIDS than no breastfeeding.



6. Consider offering a pacifier at naptime and bedtime---Although the mechanism is yet unclear, studies have reported a protective effect of pacifiers on the incidence of SIDS.

Mechanism of protection not known. The protective effect persists throughout the night, even if the pacifier falls out of the infant's mouth. If the infant refuses the pacifier, it should not be forced. Because of the risk of strangulations, pacifiers should not be tied around the infant's neck attached to clothing. Objects such as stuffed toys, which might present a suffocation or choking hazard, should not be attached to pacifiers. For breastfeeding infants, delay pacifier introduction until breastfeeding has been firmly established (usually 3-4 weeks). There is no evidence that finger sucking reduces SIDS risk.

7. Avoid overheating---Infants should be dressed appropriately for the environment (no more than one layer of clothing). Parents and caregivers should evaluate the infant for signs of overheating (sweating, or chest feels hot to the touch). Overbundling and covering the face or head should be avoided.

8. Avoid commercial devices marketed to reduce the risk of SIDS---These devices include wedges, positioners, special mattresses, and special sleep surfaces. There is no evidence that these devices reduce the risk of SIDS or suffocation or that they are safe.

FDA Consumer Health Information
www.fda.gov/consumer

Infant Sleep Positioners Pose Suffocation Risk

Advice for Consumers

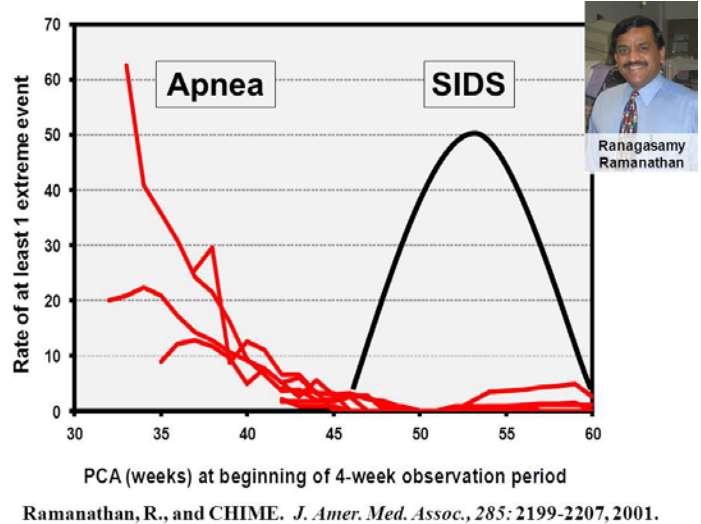
- STOP using infant sleep positioning products. Using this type of product to hold an infant on his or her side or back is dangerous and unnecessary.
- NEVER put pillows, sleep positioners, comforters, or quilts under the baby or in the crib.
- ALWAYS place an infant on his or her back at night and during nap time.
- REPORT an incident or injury from an infant sleep positioner to the Consumer Product Safety Commission by visiting www.cpsc.gov/cgibin/incident.aspx or calling 800-638-2772, or to FDA's MedWatch program at www.fda.gov/Safety/MedWatch/HowToReport/default.htm.

In addition to the deaths, the commission has received dozens of reports of babies who were placed on their back or side in hazardous positions within or near to the product. Two government agencies are warning parents and other caregivers not to put babies in sleep positioning products as two recent deaths underscore concerns about suffocation. As a result, FDA is requiring makers of infant sleep positioners to stop marketing them. The commission suggests the positioners pose a risk of suffocation.

FDA Consumer Health Information, U.S. Food and Drug Administration, September, 2009

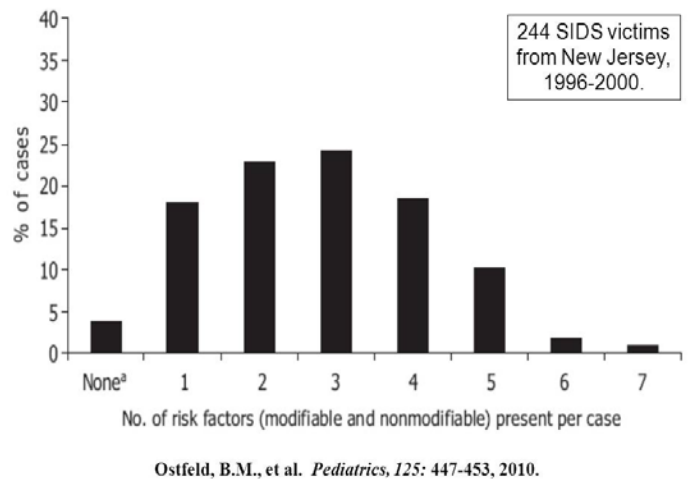
Other Infant Care Practices which decrease the risk for SIDS or infant death:

1. Pregnant women should receive regular prenatal care---There is substantial epidemiological evidence linking a lower risk of SIDS for infants whose mothers obtain regular prenatal care.
2. Avoid smoke exposure during pregnancy and after birth---Both maternal smoking during pregnancy and smoke in the infant's environment after birth are major risk factors for SIDS.
3. Avoid alcohol and illicit drug use during pregnancy and after birth---There is an increased risk of SIDS with prenatal and postnatal exposure to alcohol or illicit drug use.
4. Infants should be immunized in accordance with recommendations of the AAP and CDCP---There is no evidence that there is a causal relationship between immunizations and SIDS. Infants should also receive regular well-child check-ups.
5. Do not use home cardiorespiratory monitors as a strategy to reduce the risk of SIDS. There is no evidence that the use of such home monitors decreases the risk of SIDS.



The majority of sudden infant deaths in California are associated with one or more risk factors. Attention to creating a safe infant sleep environment, and eliminating the risk factors noted above, has resulted in a 75% decrease in SIDS deaths in California since 1990. Adhering to these infant safe sleep recommendations will decrease the chance of your baby dying from SIDS and from other accidental causes of death during sleep.

The majority of SIDS victims have ≥1 Risk Factor



Moon, R.Y., R.A. Darnall, M.H. Goodstein, and F.R. Hauk. American Academy of Pediatrics Task Force on Sudden Infant Death Syndrome: SIDS and other sleep-related infant deaths: expansion of recommendations for a safe infant sleeping environment. *Pediatrics*, 128: 1030-1039, 2011.

Moon, R.Y., R.A. Darnall, M.H. Goodstein, and F.R. Hauk. Technical Report: American Academy of Pediatrics Task Force on Sudden Infant Death Syndrome: SIDS and other sleep-related infant deaths: expansion of recommendations for a safe infant sleeping environment. *Pediatrics*, 128: e000, 2011. www.pediatrics.org/cgi/doi/10.1542/peds.2011-2220.



Safe Infant Sleep

Supine

Alone

Firm mattress

Empy crib

