

AMERICAN ACADEMY OF PEDIATRICS

Positioning and Sudden Infant Death Syndrome (SIDS): Update

Task Force on Infant Positioning and SIDS

ABSTRACT. This statement provides an update to the June 1992 American Academy of Pediatrics' policy, "Infant Positioning and SIDS," which recommended that healthy term infants be placed on their sides or backs to sleep. Recent data show that the original policy appears to have had a positive effect in decreasing the prevalence of prone sleeping significantly. Simultaneously, the SIDS rate in the United States has also dropped. New data also suggest that the supine position confers the lowest risk; however, the side position is still significantly safer than the prone position. Additional information regarding sleeping surface and exceptions to these recommendations are addressed.

In April 1992, the American Academy of Pediatrics (AAP) released a statement recommending that healthy infants be placed for sleep on their sides or backs, rather than being placed prone. The recommendation was based on numerous reports from other countries that showed that the prone sleeping position is associated with a higher incidence of sudden infant death syndrome (SIDS). The statement was followed by a detailed report from the Task Force on Infant Positioning and SIDS, which was published in the June 1992 issue of *Pediatrics*.¹ In 1994, another statement in *Pediatrics* reaffirmed the original statement and added a recommendation that soft surfaces or objects that might trap exhaled air should not be in an infant's sleeping environment, particularly under a sleeping infant.² The 1994 statement was issued jointly by the AAP and several governmental agencies and SIDS organizations and marked the initiation of a national campaign to encourage parents and care givers to place healthy infants on their sides or backs when putting them down to sleep.

Since 1992, the National Institute of Child Health and Human Development has been funding annual surveys that have shown that the incidence of prone sleeping has decreased substantially (Table). Currently, provisional data from the United States (National Center for Health Statistics, Centers for Disease Control and Prevention) suggest that the rate of SIDS has fallen progressively and coincidentally with the decrease in the number of infants sleeping prone (Figure). Although final mortality statistics require approximately 2 years for publication, the re-

TABLE. Infant Prone Sleeping as Determined by Annual Telephone Surveys*

Year	Prone Prevalence
1992	70%
1993	58%
1994	43%
1995	27%
1996	24%

* National Institute of Child Health and Human Development (Michael Corwin, MD, and Marian Willinger, PhD, oral communication, October 1996).

cently released final data for 1994 show the rate of SIDS in the United States to have fallen to 1.03 per 1000 live births—a 15%-20% decrease since before the 1992 recommendation and the largest significant decrease in the past decade.

The original recommendation was based on a series of studies that examined whether infants were placed in prone or nonprone sleeping positions, which resulted in the recommendation that infants be placed "on their backs or sides." However, recent reports from England³ and New Zealand⁴ indicate that the risk of SIDS is slightly greater for infants placed on their sides compared with those placed truly supine. There is some evidence that the reason for this difference is that infants placed on their sides have a higher likelihood of spontaneously turning to a prone position. However, both nonprone positions (side or back) are associated with a much lower risk of SIDS than the prone position.

The original recommendation also listed three exceptions for nonprone sleeping: "premature infants while they are experiencing respiratory disease, infants with symptomatic gastroesophageal reflux, and infants with certain upper airway malformations such as Robin Syndrome." The first exception, premature infants with respiratory disease, has caused some confusion when discharge from the hospital is being contemplated for a premature infant who has recovered from respiratory disease. Some data from both preterm⁵ and term⁶ infants show that respiratory function is slightly more stable when infants are lying prone. The Task Force has reviewed these studies and concluded that in asymptomatic infants, the slightly greater stability in respiratory physiology variables confers no proven clinical benefit to the healthy infant and does not outweigh the decrease in risk for SIDS conferred by the supine position. Therefore, to minimize confusion, the Task Force has deleted the reference to preterm infants in the list of exceptions to the recommendation. The action was

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U.S. SIDS Rate

(NCHS Provisional Data)

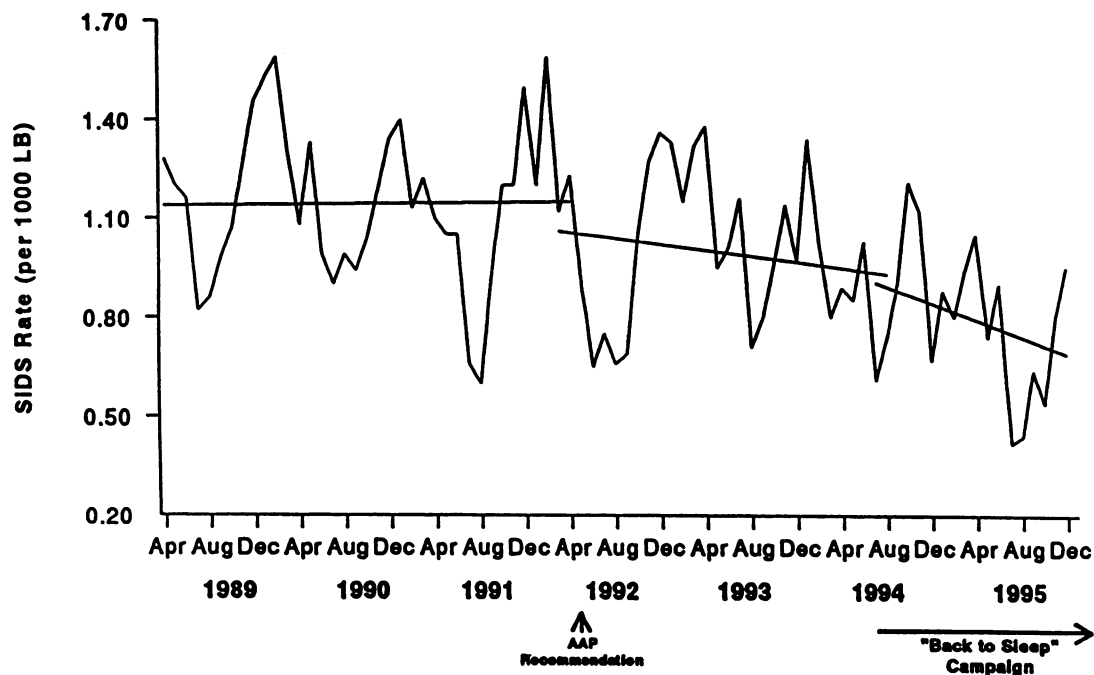


Figure. U.S. SIDS rate, 1989–1995.

taken primarily because the recommendation is for healthy infants only and also because there are no studies suggesting that recovered preterm infants are exempt from the increased risk of SIDS when placed prone.

When the recommendation was originally released, concerns were expressed that supine sleeping might be associated with an increase in adverse events, such as aspiration, acute life-threatening events, vomiting, poor sleeping, and flattened heads (positional plagiocephaly). Since 1992, Golding and co-workers (Jean Golding, PhD, DSc, written communication, September 1996) have carefully monitored such health factors of infants in the Avon area of the United Kingdom, where a marked change in sleeping positions from prone to supine occurred following a similar "Back-to-Sleep" campaign in England. Although a slight increase in the frequency of diaper rashes occurred with the increase in the numbers of infants sleeping supine, none of the other perceived complications were reported, and some of these adverse effects were actually found to be worse when infants were sleeping prone. Reports exist of an increase in the number of flat spots on the occiput, which apparently are occasionally misdiagnosed as lambdoidal craniosynostosis.⁷ However, flat spots are generally of cosmetic significance only, can usually be avoided, and surgery is almost never indicated.^{8,9} Positional plagiocephaly can also be avoided by altering the supine head position during sleep time by changing the orientation of the baby to outside activity (eg, the door of the

room). The AAP does not approve of restrictive devices to hold the infant's head in place. When infants are able to easily turn over from the supine to the prone position, they should still be put to sleep in the supine position, but allowed to adopt whatever position they prefer.

In view of the previously described findings, the AAP Task Force on Infant Positioning and SIDS has elected to modify its original recommendations slightly:

1. Infants should be placed for sleep in a nonprone position. A supine position (wholly on the back) confers the lowest risk and is preferred. However, a side position also carries a significantly lower risk than a prone position. If the side position is used, care givers should be advised to bring the dependent arm forward, to lessen the likelihood of the infant rolling into a prone position.
2. Soft surfaces and gas-trapping objects should be avoided in an infant's sleeping environment. Of particular importance, soft surfaces such as pillows or quilts should not be placed under a sleeping infant.
3. The current recommendation is for healthy infants only. The pediatrician should consider the relative risks and benefits. Gastroesophageal reflux and certain upper airway anomalies that predispose to airway obstruction and perhaps some other illnesses may be indications for a prone sleeping position.
4. The current recommendation is for infants during sleep. A certain amount of "tummy time," while

the infant is awake and observed, is recommended for developmental reasons and to help prevent flat spots on the occiput.

TASK FORCE ON INFANT POSITIONING AND SIDS,
1996 TO 1997

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Pediatrics 1996;98;1216

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