



National Institute of Child Health and Human Development (NICHD)

National Institute on Deafness and Other Communication Disorders (NIDCD)

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Study Confirms Safety of Placing Infants to Sleep on their Backs Infants Who Sleep on Back Have Fewer Fevers and Ear Infections

A team of researchers reports that infants who are placed to sleep on their backs are not at increased risk for health problems, and they are less likely to develop fevers, get stuffy noses, or develop otitis media (ear infection). Placing infants to sleep on their backs has been found to reduce the risk of Sudden Infant Death Syndrome (SIDS).

The current study goes beyond earlier studies from other countries, showing not only that there do not appear to be adverse health effects from placing infants to sleep on their backs, but that the practice may confer specific benefits for infants' health.

The study, appearing in the *Archives Of Pediatrics & Adolescent Medicine*, was funded by the National Institute of Child Health and Human Development (NICHD) and the National Institute on Deafness and other Communication Disorders (NIDCD).

"Placing infants to sleep on their backs not only reduces their risk of Sudden Infant Death Syndrome, but also appears to reduce the risk for fever, stuffy nose, and ear infections," said Duane Alexander, M.D., director of the NICHD.

"Otitis media causes suffering in infants and young children, costs the American public an estimated \$5 billion dollars per year, and results in overuse of antibiotics. The research showing that putting infants on their backs to sleep is saving lives is now revealing an outstanding additional benefit, the reduction of otitis media in infants," said James F. Battey, Jr., M.D., Ph.D., Director of the NIDCD.

In the 1980s, several countries conducted studies that found placing infants to sleep on their backs reduced the risk of SIDS. By 1992, Australia, New Zealand, and the United Kingdom had already campaigns urging parents and caregivers not to place infants to sleep on their stomachs. The study authors noted that in the U.S. in 1992, roughly 70 percent of U.S. infants were placed to sleep on their stomachs. The NICHD-sponsored Back to Sleep campaign, begun in 1994, urges parents and caregivers to place infants to sleep on their backs, to reduce SIDS risk. As of 1998, when the study authors finished their analysis, the percentage of stomach sleeping had declined to 17 percent. By this time, the SIDS rate also dropped by about 40 percent.

In the U.S., however, many physicians and caregivers still have reservations about placing infants to sleep on their backs. For example, some fear that an infant sleeping on his or her back might be more likely to choke on vomit. Others believe that infants would sleep better on their stomachs. The researchers undertook the study to rule out the possibility that U.S. infants would react any differently to back sleeping than did infants in other countries.

The first author of the study is Carl E. Hunt, M.D., who conducted the study while at the Medical College of Ohio in Toledo. He is now head of the National Center on Sleep Disorders Research at the National Heart, Lung, and Blood Institute.

The researchers analyzed information collected on 3,733 U.S. infants whose mothers reported that their infants were always placed to sleep in the same position. The information collection began in 1995. At that time, the American Academy of Pediatrics (AAP) advised parents and caregivers to place infants to sleep on their backs or sides. The study authors asked the mothers who participated whether their infants had been placed to sleep on their backs, stomachs, or sides. Based on more recent information showing that side sleeping may also increase the risk of SIDS, the AAP later revised its recommendation to say that infants should be placed to sleep only on their backs.

When the infants were 1, 3, and 6 months of age, the researchers questioned the infants' mothers about whether the infants had such symptoms as fever, cough, wheezing, stuffy nose, trouble breathing, trouble sleeping, and vomiting.

The researchers found, that, at one month of age, infants sleeping on their backs were less likely to have come down with a fever than were infants sleeping on their stomachs. At 6 months, back sleepers were less likely to develop a stuffy nose than were stomach sleepers. At 3 and 6 months, back sleepers needed to visit the doctor less often for ear infections than did stomach sleepers. Moreover, at 6 months, the mothers of back sleepers reported fewer instances in which their infants had trouble sleeping than did the mothers of stomach sleepers. None of the infants in the study was reported to have choked on their vomit.

The researchers are not sure why back sleepers had fewer symptoms than did stomach sleepers. One possibility is that stomach sleepers have higher mouth and throat temperatures than do back sleepers. These higher temperatures may be more favorable to the bacteria involved in colds and otitis media.

"No identified symptom or illness was significantly increased among nonprone [not on the stomach] sleepers during the first 6 months," the study authors concluded. "These reassuring results may contribute to increased use of the supine [on the back] position for infant sleeping."

The NICHD and the NIDCD are part of the National Institutes of Health (NIH), the biomedical research arm of the federal government. NIH is part of the U.S. Department of Health and Human Services. The NICHD sponsors research on development, before and after birth; maternal, child, and family health; reproductive biology and population issues; and medical rehabilitation. NICHD publications, as well as information about the

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