

Sudden Infant Death Syndrome (SIDS) Risk Decreased With Use of Fan

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Using a fan while an infant is sleeping in a room with inadequate ventilation can decrease the risk of that infant dying of sudden infant death syndrome (SIDS), according to a report released on October 6, 2008 in *Archives of Pediatrics & Adolescent Medicine*, one of the JAMA/Archives journals.

Sudden infant death syndrome, sometimes called cot death or crib death, describes the unexpected, unexplained death of an apparently health infant. In the United States, between the years of 1992 and 2003, the incidence of SIDS decreased by 56%, according to this article. Largely, experts attribute this to the increased employment of the supine sleeping position, with the infant sleeping on its back with its head facing up, following the introduction of the "Back to Sleep" campaign in 1994. This decrease has become less pronounced in recent years. The authors note that this indicates a need for further research in SIDS prevention: "Although caretakers should continue to be encouraged to place infants on their backs to sleep, other potentially modifiable risk factors in the sleep environment should be examined to promote further decline in the rate of SIDS."

Room ventilation has been associated with SIDS in previous studies, but this factor has not been paid significant attention in research. By limiting ventilation, carbon dioxide might pool around the infant's nose and mouth, and this would increase the likelihood of rebreathing. It is possible that allowing air to move in the room could potentially reduce SIDS risk.

To investigate this association further, Kimberly Coleman-Phox, M.P.H., and colleagues at Kaiser Permanente's Division of Research in Oakland, CA, investigated information taken from interviews with mothers of 185 infants who has died of SIDS, and the mothers of 312 randomly selected infants from the same county, with the same maternal race/ethnicity, and age. In the interviews, mothers answered questions about fan use, pacifier use, the status of nearby windows on the night of the infant's last sleep, location of the room, sleep location, number and type of covers, the bedding used, and the temperature of the room.

Several trends were identified in the infants who died from SIDS in comparison with infants who do not. For example, more were placed on their stomachs or sides to sleep, more did not use a pacifier, more were found with bedding or clothing covering the head, more slept on a soft surface, and more shared the bed with someone who was not a parent. For both groups of children, the use of soft bedding underneath the infant and the room temperature were similar.

Notably, having a fan running during the sleep was associated with a 72% decrease in SIDS deaths in comparison to sleeping in a room without a fan. This was especially true for the use of fans when the room temperature was higher, and when the room was about 69° Fahrenheit (21° Celsius), fan use decreased SIDS deaths by 94%. This was also true for infants who slept on their sides, shared a bed with someone other than their parents, or did not use a pacifier.

There is still room for improvement, and even though placing infants on their backs is extremely effective against SIDS, some one-quarter of child care providers do not follow this practice regularly. The authors conclude that this is still an important risk factor for prevention of SIDS. "Use of the prone sleep position [lying with the front or face downward] remains highest in care providers who are young, black or of low income or who have low educational attainment," they say. "In this study, the frequency of fan use was similar in young and less educated women as in other women; thus, fan use can be easily adopted by these populations."

They finish, advocating for a combined approach: "Although improving the methods used to

convey the importance of the supine sleep position remains paramount, use of a fan in the room of a sleeping infant may be an easily available means of further reducing SIDS risk that can be readily accepted by care providers from a variety of social and cultural backgrounds."

Use of a Fan During Sleep and the Risk of Sudden Infant Death Syndrome

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