

Frequently Asked Questions Concerning Sudden Infant Death Syndrome

What is SIDS?

Sudden infant death syndrome (SIDS) has been defined as the sudden death of an infant less than 1 year of age which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene and a review of the clinical history (Willinger et al., 1991). This definition is the most widely accepted.

In 2004, scientists proposed a revision in the definition of SIDS to incorporate more recent knowledge about the epidemiology and pathology of SIDS: “The sudden unexpected death of an infant less than 1 year of age, with the 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.” Because most cases of SIDS occur when a baby is sleeping, often in a crib, SIDS is also commonly known as crib death. In European countries, SIDS is called cot death.

How many babies die from SIDS?

Nationally, SIDS is the leading cause of death in infants between one month and one year of age. According to the National Center for Health Statistics there were 2,226 SIDS deaths in 2009 in the United States. In Ohio, SIDS accounted for 45 (4.5 percent) of the 1,001 infant (ages birth to 1 year) deaths in 2009.

In 2009, four percent (45) of the deaths from medical causes were due to SIDS. The number of boys who died of SIDS (28) is almost two times higher than girls (17). Forty-two of the 45 SIDS deaths occurred between 29 days and 1 year of age.

What causes SIDS?

The exact cause or causes of SIDS are yet unknown by medical science. Promising research currently is being done in the areas of immunology, infection, neurology and in the mechanisms that regulate the heart and respiration. **In spite of all the research, we do not know what causes SIDS and we cannot predict which babies will die.**

Mounting evidence suggests that some SIDS babies are born with brain abnormalities that make them vulnerable to sudden death in infancy. Many scientists believe that these abnormalities present at birth may not be sufficient to cause death by themselves, but may make the infant more vulnerable at a critical point in development. Other events occurring after birth may trigger the SIDS reaction.

SIDS is a diagnosis of exclusion, meaning all other reasonable causes must be ruled out before a death is labeled SIDS. Diseases or conditions that have known markers or causes are ruled out

through autopsy findings, a death scene investigation and a thorough review of the victim's and family's health history.

While the cause of SIDS remains unknown, we do know:

- SIDS is not caused by immunizations, apnea, child abuse or suffocation
- SIDS is not communicable
- Cardiac and respiratory monitoring does not prevent SIDS
- SIDS is not the result of any action of the parents or caregivers
- Because the first symptom of SIDS is the sudden death, it is not predictable.

What are risk factors for SIDS?

SIDS victims share three major characteristics:

- 1) The infants appear healthy prior to death. There may be evidence of a slight cold or stuffy nose, but there is usually no history of a significant respiratory infection.
- 2) The infants die during sleep. The death occurs silently, with no warning.
- 3) The infants are most often between the ages of 28 days and 1 year of age. Ninety percent of the deaths occur under 6 months of age; the majority between 2 and 4 months.

Other common characteristics of SIDS victims have been identified. These characteristics are called risk factors because they seem to put a baby at higher risk for SIDS. **They do not cause SIDS.** Risk factors can be categorized as infant, maternal and environmental. Some of these risk factors can be modified, giving a baby the best chance for survival.

Infant risk factors include:

- Male
- Low birth weight
- Prematurity
- Multiple births (twins, triplets, etc.)
- African American (2-3 times greater risk)
- Native American (2-3 times greater risk)

Maternal risk factors include:

- Smoking during or after pregnancy
- Under 20 years of age at the first pregnancy
- Short interval between pregnancies
- Late or no prenatal care
- Placental abnormalities
- Low weight gain during pregnancy
- Anemia
- Alcohol and substance abuse
- History of sexually transmitted disease (STD) or urinary tract infection (UTI)

Environmental risk factors include:

- Stomach or side-lying positioning for sleep
- Exposure to cigarette smoke during pregnancy or after birth
- Soft bedding including loose sheets, bumper pads, fluffy blankets, pillows, cushions, sheepskin and waterbeds
- Stuffed toys, extra clothing, wedges and other objects in the crib
- Bed sharing
- Sleep surfaces including recliners, couches, mattresses that are meant for adults, not infants
- Fall and winter months
- Overheating by warm room temperature or excessive clothing

Mothers who smoke during pregnancy are three times more likely to have a SIDS baby, and exposure to passive smoke by mothers, fathers and others in the household doubles a baby's risk of SIDS.

What might help lower the risk of SIDS?

While the exact cause of SIDS remains unknown, we do know that eliminating or reducing the presence of risk factors reduces the risk of a baby dying of SIDS. In 2011, the American Academy of Pediatrics (AAP) made the following recommendations to reduce the risk of SIDS:

“Back to Sleep”

Infants should be placed to sleep on their back for every sleep, nighttime and naptime. Side sleeping is not as safe as back sleeping and is not recommended.

Safe Sleep Space

A firm crib mattress, covered by a sheet, is the recommended sleeping surface. The crib should be free of soft objects, loose bedding and bumpers. Keep pillows, quilts, stuffed toys and other soft objects out of the infant's sleeping environment. Sleep sacks or blanket sleepers can be used to eliminate the need for additional loose blankets.

Sleep surfaces such as chairs, sofas, adult beds, waterbeds and futons are particularly dangerous for infants.

Research has shown that if an infant is sleeping in the same room with the mother but on a separate sleep surface (crib or bassinet), the risk for SIDS is reduced. The AAP recommends that babies sleep in a crib placed in the parents' bedroom.

Elimination of Second-hand Smoke

According to the National Institute of Health, maternal cigarette smoking during pregnancy increases the risk of SIDS about threefold, independent of the birth weight of the baby. Increased risk of SIDS has also been demonstrated when babies are exposed to cigarette smoke

after birth. At least 47 percent of the SIDS deaths reviewed by Ohio Child Fatality Review involved cigarette smoke in utero or after birth.

Maintaining Even Temperature

As a general rule, babies should be dressed in the same number of layers as their adult caregivers. Elevated room temperatures are not necessary for babies. Overheating may hinder the baby's ability to regulate breathing and heart rate. Excessive layers of clothing and blankets increase the risk of overheating and SIDS.

Breastfeeding

Research has not been able to directly link breastfeeding with a reduction in the risk of SIDS, but the health advantages of breastfeeding include the protective effect on the immune system are well documented. Efforts to encourage the initiation and continuation of breastfeeding throughout the first year of life may result in a reduction in infant mortality and in SIDS.

Pacifiers

Although the mechanism is not known, the reduced risk of SIDS associated with pacifier use during sleep has been demonstrated in numerous research studies. The 2005 AAP policy statement recommends babies be offered pacifiers at sleep time. Pacifier introduction should be delayed until 1 month of age for breastfeeding infants.

Prenatal Care

The risk of SIDS increases with decreasing birthweight and decreasing gestational age. Mothers who receive early and adequate prenatal care have the best chance for having a healthy baby. Case-control studies have identified late or no prenatal care as increasing the risk for SIDS.

Commercial Products

Many devices are offered for sale that are designed to help position the baby on his or her back, or to "improve breathing." None have been tested sufficiently to show they actually work or are safe. Home monitors are not a useful strategy to reduce the risk of SIDS. There is no evidence that home monitors decrease the incidence of SIDS. Furthermore, there is no evidence that infants at increased risk of SIDS can be identified by monitoring.

References:

- SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment - Task Force on Sudden Infant Death Syndrome - Pediatrics Vol. 128 No. 5 November 1, 2011 pp. 1030 -1039 (doi: 10.1542/peds.2011-2284) <http://pediatrics.aappublications.org/content/128/5/1030.full.html>

- National SIDS/Infant Death Resource Center (NSIDRC). “What is SIDS?”
<http://www.sidscenter.org>

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