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.

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 Center for Disease Control and Prevention/National Center for Health Statistics (CDC/NCHS), there were about 1,500 SIDS deaths in 2014 in the United States.

In the Ohio Child Fatality Review (CFR) Sixteenth Annual Report, SIDS was identified as the cause of death for 11 percent (84) of the 770 reviews of sleep-related deaths over the five year period, 2011 through 2015. Also in the CFR, SIDS was identified as the cause of death in 8 of the 891 reviews of deaths from medical causes in 2015.

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:
- Suffocation
- Asphyxia
- 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

Babies born to mothers who smoke during pregnancy are up to three times more likely to die of SIDS, 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 2016, the American Academy of Pediatrics (AAP) made the following recommendations to reduce the risk of SIDS and other sleep-related infant deaths. For more detail, read the entire AAP policy statement ([http://pediatrics.aappublications.org/content/pediatrics/early/2016/10/20/peds.2016-2938.full.pdf](http://pediatrics.aappublications.org/content/pediatrics/early/2016/10/20/peds.2016-2938.full.pdf)).

**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 the child reaches 1 year of age. Side sleeping is not safe and is not advised.

**Use a firm sleep surface.** Infants should be placed on a firm sleep surface (e.g. mattress in a safety-approved crib) covered by a fitted sheet with no other bedding or soft objects to reduce the risk of SIDS and suffocation.

**Breastfeeding is recommended.** Breastfeeding is associated with a reduced risk of SIDS. Unless contraindicated, mothers should breastfeed exclusively or feed with expressed milk (i.e. not offer any formula or other nonhuman milk-based supplements) for 6 months, in alignment with recommendations of the AAP.

**It is recommended that infants sleep in the parents’ room, close to the parents’ bed, but on a separate surface designed for infants, ideally for the first year of life, but at least for the first 6 months.** There is evidence that sleeping in the parents’ room but on a separate surface decreases the risk of SIDS by as much as 50%. In addition, this arrangement is most likely to prevent suffocation, strangulation, and entrapment that may occur when the infant is sleeping in the adult bed.

**Keep soft objects and loose bedding away from the infant’s sleep area to reduce the risk of SIDS, suffocation, entrapment, and strangulation.** Soft objects, such as pillows and pillow-like toys, quilts, comforters, sheepskins, and loose bedding, such as blankets and non-fitted sheets, can obstruct an infant’s nose and mouth. An obstructed airway can pose a risk of suffocation, entrapment, or SIDS.

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

**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.

**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.
Avoid overheating and head covering in infants. Although studies have shown an increased risk of SIDS with overheating, the definition of overheating in these studies varies. Therefore, it is difficult to provide specific room temperature guidelines to avoid overheating. In general, infants should be dressed appropriately for the environment, with no greater than 1 layer more than an adult would wear to be comfortable in that environment.

Pregnant women should obtain regular prenatal care. There is substantial epidemiologic evidence linking a lower risk of SIDS for infants whose mothers obtain regular prenatal care. Pregnant women should follow guidelines for frequency of prenatal visits.

Infants should be immunized in accordance with recommendations of the AAP and Centers for Disease Control and Prevention. There is no evidence that there is a causal relationship between immunizations and SIDS. Indeed, recent evidence suggests that vaccination may have a protective effect against SIDS.

Avoid the use of commercial devices that are inconsistent with safe sleep recommendations. Be particularly wary of devices that claim to reduce the risk of SIDS. Examples include, but are not limited to, wedges and positioners and other devices placed in the adult bed for the purpose of positioning or separating the infant from others in the bed.

Do not use home cardiorespiratory monitors as a strategy to reduce the risk of SIDS. The use of cardiorespiratory monitors has not been documented to decrease the incidence of SIDS.

Supervised, awake tummy time is recommended to facilitate development and to minimize the development of a flat spot on a baby’s head. Although there are no data to make specific recommendations as to how often and how long it should be undertaken, a certain amount of tummy time while the infant is awake and being observed is recommended to help prevent the development of flat spots on babies’ heads and to facilitate strengthening neck muscles.

There is no evidence to recommend swaddling as a strategy to reduce the risk of SIDS. Swaddling, or wrapping the infant in a light blanket, is often used as a strategy to calm the infant and encourage the use of the supine position. There is a high risk of death if a swaddled infant is placed in or rolls to the prone position. If infants are swaddled, they should always be placed on the back.

Health care professionals, staff in newborn nurseries and NICUs, and child care providers should endorse and model the SIDS risk-reduction recommendations from birth. Staff in NICUs should model and implement all SIDS risk-reduction recommendations as soon as the infant is medically stable and well before anticipated discharge.

Media and manufacturers should follow safe sleep guidelines in their messaging and advertising. Media exposures (including movie, television, magazines, newspapers, and Web sites), manufacturer advertisements, and store displays affect individual behavior by influencing beliefs and attitudes.
Continue the “Safe to Sleep” campaign, focusing on ways to reduce the risk of all sleep-related infant deaths, including SIDS, suffocation, and other unintentional deaths. Pediatricians and other primary care providers should actively participate in this campaign. Public education should continue for all who care for infants, including parents, child care providers, grandparents, foster parents, and babysitters, and should include strategies for overcoming barriers to behavior change.

Continue research and surveillance on the risk factors and causes of SIDS, and other sleep-related infant deaths, and implement standardized protocols for death scene investigations and comprehensive autopsies, with the ultimate goal of eliminating these deaths altogether. Education campaigns need to be evaluated, and innovative intervention methods need to be encouraged and funded.

References:


National SIDS/Infant Death Resource Center (NSIDRC). “What is SIDS?”


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