



Question

Are some babies at higher risk for SIDS?



Michael Goodstein, MD, FAAP

Answer

Thousands of U.S. babies die suddenly and unexpectedly each year, usually during sleep ([/English/ages-stages/baby/sleep/Pages/a-parents-guide-to-safe-sleep.aspx](#)). Sometimes, the cause is found, such as when bedding or other items near them blocks breathing. Other times, such as with sudden infant death syndrome (SIDS), the exact cause can't be determined. But while we don't yet know exactly what causes SIDS, also called unexplained sudden death in infancy, there are some risk factors we know about.



Types of SIDS risk factors

It's important to know that risk factors are findings that are associated with an increased or decreased likelihood of SIDS, but are not the cause of the death. Some risk factors, including many related to the sleep environment, can be changed to lower your baby's risk. Other risk factors cannot be changed.

For example, babies who are born preterm (premature ([/English/ages-stages/baby/preemie/Pages/default.aspx](#))) or with a low birth weight (under 5 lbs. 8 oz.) are 2 to 3 times more likely to die of SIDS or other sleep-related deaths. We also know that your baby is at higher risk if you smoked or drank alcohol during pregnancy. Recent research shows that every cigarette smoked during pregnancy increases your baby's risk of SIDS. In fact, it has been estimated that, if everyone stopped smoking during pregnancy, up to one-third of SIDS deaths could be avoided.

What other SIDS risk factors have been studied?

Interestingly, about 60% of the deaths occur in males and 40% in females. Age also plays an important role in SIDS and sleep-related deaths. SIDS peaks between 1 and 4 months of age, and 90% of the cases take place in the first 6 months of life. Suffocation and strangulation deaths in the sleep space also occur mostly in the first 6 months of life, but there are different peaks based on how the death occurred: overlays (suffocation when a larger person sleeps on the baby, which can happen with bed-sharing) peak at 2 months; soft bedding deaths (when the baby's face and nose are blocked by soft bedding) peak at 3 months, and wedgings (when a baby can't breathe because they are stuck between 2 hard surfaces, such as the bed and a wall) peak at 6 months.

Why don't we know what causes SIDS yet?

Researchers have been hard at work trying to unlock the secrets of SIDS for over 50 years, and much progress has been made. But it is very hard to study when we can't predict these tragedies before they happen, and they mostly happen while everyone is asleep. Our best working model is the Triple Risk Hypothesis, which proposes 3 factors in

these deaths: 1) an underlying abnormality or immaturity in the baby's breathing or sleep waking systems, 2) a critical period of development (first months of life), and 3) environmental factors or stressors (such as stomach or side sleeping, overheating or covering the nose and mouth). Each death results from the interaction of multiple factors. [Back to Top](#)

For many of these tragic deaths, it seems that the baby cannot wake up or arouse enough to move their head when they are not getting enough oxygen. However, we also know that there are other reasons that these babies die. Up to 10% of SIDS deaths are due to sudden irregular heartbeats, some may be related to specific abnormalities in the brain. Some may be triggered by an abnormal immune response to infection. Still others may be related to seizures (</English/health-issues/conditions/seizures/Pages/default.aspx>) and some may have a genetic component.

So, is there any test my baby can take to predict the risk of or prevent SIDS?

Unfortunately, there is no test to help predict or prevent SIDS at this time. Years ago, Italian researchers tried to use electrocardiograms (EKGs) to identify babies at risk for heart arrhythmias (</English/health-issues/conditions/heart/Pages/Irregular-Heartbeat-Arrhythmia.aspx>) (irregular heartbeats), but this was not successful. The brain abnormalities that researchers have identified in some cases cannot be seen in advance using current technology. They can only be found at autopsy in specialized research facilities.

Although there is no "SIDS gene," many genes have been identified that may play a role in certain SIDS cases. There are genes related to some cardiac arrhythmias, others that affect brain chemicals (neurotransmitters) involved in sleep arousals (a baby's ability to wake up), and others that impact immune response to infection, to name a few.

What about the recent study saying researchers found a biomarker for SIDS?

Everyone desperately wants to find answers so we can prevent these tragedies from happening. So it's understandable how this report generated a lot of excitement. But the reality is that this was a small, preliminary study with promising results that need additional testing. Although there was a statistical difference in the AVERAGE levels of the tested chemical in the SIDS group vs. the control group, the RANGE of levels between the two groups had a lot of overlap. A good screening test must be able to clearly separate out those at risk from those who are not. This test cannot do this yet.

If there is no test for SIDS, what can I do now to keep my baby safe?

The best thing you can do for your baby at this time is create a safe sleep environment to minimize the risk of SIDS and to prevent issues like suffocation. Babies are safest sleeping on the back, close to but separate from the parents (room sharing-not bed sharing) in an uncluttered crib, bassinet or play yard (no pillows, loose blankets, stuffed animals, etc.). There should be nothing in the sleep area but a firm, flat non-inclined mattress with fitted sheet.

There are a number of other safe sleep recommendations that can help. These include having a smoke-free environment, letting your baby use a pacifier, keeping them up to date on recommended immunizations (</English/safety-prevention/immunizations/Pages/Your-Babys-First-Vaccines.aspx>), and breastfeeding or the use of human milk. Providing human milk to your baby for at least 2 months can decrease the risk of SIDS by 50%!

Remember

Although the overall risk of SIDS is low--a little under 1 death per 1000 live births--this number is still much too high. Our SIDS rates in the United States are much higher than those of many other countries. As scientists continue to search for more information about how SIDS happens, try to minimize risk factors as much as possible to help prevent these tragic deaths. And don't hesitate to talk with your pediatrician about keeping your sleeping baby safe.

More information

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- [How to Keep Your Sleeping Baby Safe: AAP Policy Explained \(/English/ages-stages/baby/sleep/Pages/a-parents-guide-to-safe-sleep.aspx\)](#)
- [Inclined Sleepers and Other Baby Registry Items to Avoid \(/English/ages-stages/baby/sleep/Pages/Inclined-Sleepers-and-Other-Baby-Registry-Items-to-Avoid.aspx\)](#)
- [Safe Sleep: Back is Best, Avoid Soft Bedding, Inclined Surfaces & Bed Sharing \(/English/news/Pages/safe-sleep-back-is-best-avoid-soft-bedding-inclined-surfaces-and-bedsharing.aspx\)](#)
- [Make Baby's Room Safe: A Parent Checklist \(/English/ages-stages/baby/sleep/Pages/New-Crib-Standards-What-Parents-Need-to-Know.aspx\)](#)
- [Safe Sleep: Charlie's Story \(/English/ages-stages/baby/sleep/Pages/Safe-Sleep-Charlies-Story.aspx\)](#)
- [Safe to Sleep \(https://safetosleep.nichd.nih.gov/\)](https://safetosleep.nichd.nih.gov/) (National Institute of Child Health and Development)



Michael Goodstein, MD, FAAP

Michael Goodstein, MD, FAAP is a board-certified neonatologist with 29 years' experience working at York Hospital for the WellSpan Medical Group, where he is currently the director of newborn services. He is also an Adjunct Professor of Pediatrics at the College of Medicine of The Pennsylvania State University. He established the York County Cribs for Kids Program and has been its director since 2003. Dr. Goodstein has been a member of the AAP Task Force on SIDS since 2010.

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