



What is SIDS?

Sudden infant death syndrome (SIDS) is the unexplained death, usually during sleep, of a seemingly healthy baby. For parents, it's a devastating and shocking childhood illness — there's no warning and there's no definitive cause.

Most SIDS deaths occur in children between 2 months and 4 months of age. Sudden infant death syndrome rarely occurs before 1 month of age or after 6 months.

Researchers have discovered some factors that may put babies at risk for sudden infant death syndrome. They've also identified some measures you can take to help protect your child from sudden infant death syndrome. Perhaps the most important is placing your baby on his or her back to sleep.

What are the causes of SIDS?

The prevalence of SIDS has decreased, due in part to educational campaigns about the importance of placing infants to sleep on their backs. However, SIDS remains the leading cause of death for infants in the first year of life in developed countries.

Over the years, researchers have ruled out a number of possible causes of sudden infant death syndrome, including suffocation, vomiting or choking, birth defects and infection.

Exactly why SIDS occurs remains elusive, but many experts believe multiple factors are involved. For example, it's likely that an infant must have some sort of biological vulnerability, such as a heart or brain defect, combined with an environmental stressor, such as stomach sleeping, and be in a critical developmental period before SIDS can occur. The mother's health and behavior during pregnancy also play a role.

These three factors — vulnerability, critical developmental period and outside stressor — combine within the first six months of an infant's life to form what's known as the triple-risk model.

Research offers clue

Research has offered clues as to what may and what may not be involved in sudden infant death syndrome:

Medical Arts Building
825 Nicollet Mall, Suite 735
Minneapolis, MN 55402
FAX: 952-806-9741

Edina Location
6565 France Ave South, Suite 200
Edina, MN 55435
FAX: 952-806-9741

Centralized Switchboard and Scheduling: 952-806-0011

- **Brain and nerve characteristics.** Researchers have discovered that abnormalities in a part of the brain that helps control breathing and arousal likely play a role in SIDS. Infants who die of SIDS may have brainstems that mature more slowly than those of other infants. Myelin, a fatty substance involved in nerve signal transmission, also may develop more slowly in infants with SIDS.
- **Breathing.** Other research has focused on the way babies breathe while they're asleep – especially their response to low blood oxygen levels (hypoxia).
- **Heart function.** Researchers continue to investigate the link between SIDS and long QT syndrome, a subtle electrical disturbance in the heart that causes sudden, extremely rapid heart rates. A study found that almost one in 10 babies who died of SIDS had a genetic defect in one of the genes responsible for long QT syndrome. If there's a history of SIDS in your family, your doctor will want to check for the presence of long QT syndrome in your infant. This usually can be done with an electrocardiogram (ECG) and confirmed, if necessary, with genetic studies.
- **Immunizations.** After reviewing the available evidence, the American Academy of Pediatrics concluded that childhood immunizations don't play a role in sudden infant death syndrome.

What are the risk factors of SIDS?

Although sudden infant death syndrome can strike any infant, researchers have identified several factors that may increase a baby's risk. At higher risk are babies who are

- **Male.** Boy babies are more likely to die of SIDS.
- **Between 1 month and 6 months of age.** Infants are most vulnerable during the second and third months of life.
- **Premature or of low birth weight.** Your baby is more susceptible to SIDS if he or she was premature or had a low birth weight.
- **Black, American Indian or Native Alaskan.** For reasons that aren't well understood, there appears to be an association between race and the risk of SIDS.
- **Placed to sleep on their stomachs.** Cultural differences in child care practices – such as whether babies are placed to sleep on their backs – may be a factor. Babies who sleep on their stomachs are much more likely to die of SIDS than are babies who sleep on their backs. At highest risk are babies who are used to sleeping on their backs and are suddenly switched to stomach sleeping. At one time, doctors recommended stomach sleeping because babies rest more soundly in that position. But it's now known that stomach sleeping greatly increases a baby's risk. Side sleeping – because infants placed on their sides are likely to roll to their stomachs – and soft bedding have also been found to contribute to risk.
- **Born to mothers who smoke or use drugs.** Smoking cigarettes during or after your pregnancy puts your baby at considerably higher risk of SIDS. Using drugs such as cocaine, heroin or methadone while you're pregnant also increases the risk.
- **Exposed to environmental tobacco smoke.** Infants exposed to secondhand smoke have a higher risk of SIDS.
- **Born during the fall or winter months.** More SIDS cases occur when the weather is cooler.
- **Overheated.** Some evidence suggests that babies who are overdressed, covered with multiple blankets or whose rooms are too warm are at greater risk of SIDS, especially if they're put to sleep on their stomachs.

Medical Arts Building
825 Nicollet Mall, Suite 735
Minneapolis, MN 55402
FAX: 952-806-9741

Edina Location
6565 France Ave South, Suite 200
Edina, MN 55435
FAX: 952-806-9741

Centralized Switchboard and Scheduling: 952-806-0011

- **Recently recovered from an upper respiratory infection.** Evidence of infection within four weeks of death is a common finding in SIDS autopsies.
- **Siblings of a baby who died of SIDS.** The extent of the risk increase is unknown, but probably small. Genetic disorders, such as prolonged QT syndrome, may be involved.

Also at risk are babies whose mothers had:

- Inadequate prenatal care
- Placental abnormalities – such as placenta previa, a condition where the placenta lies low in the uterus, some times covering the opening of the cervix
- Low weight gain during pregnancy
- Their first pregnancy at younger than 20 years of age
- Anemia
- History of sexually transmitted diseases or urinary tract infections

Coping and support with SIDS

The death of a child can be overwhelming. Parents are often torn by guilt as well as grief. But SIDS can occur no matter how much you love and protect your baby. As of now, SIDS remains a mystery.

Seeking support from others

When you lose your baby to SIDS, the emotional support of others is especially important. You may find it comforting to talk to other parents whose lives have been touched by SIDS. If so, your doctor may be able to recommend a support group in your area, or you can visit an online SIDS chat room. But support groups aren't for everyone. For some people, talking to a trusted friend, counselor or member of the clergy may be more helpful.

If you can, keep an open line of communication with friends and family about how you're feeling. People want to help, but they may not know how to approach you. The baby's parents, especially, need to be as open as possible with one another. Losing a child can put a terrible strain on a marriage. Counseling may help some couples understand and express their feelings.

Allow time for healing

Finally, give yourself time to grieve. Don't worry if you find yourself crying unexpectedly, if holidays and other celebratory times are especially difficult, or if you're tired and drained much of the time. This is normal. You're dealing with a devastating loss. Healing takes time.

Prevention of SIDS

There's no guaranteed way to prevent SIDS, but you can help your baby sleep safely. Recommendations from the American Academy of Pediatrics include the following:

Medical Arts Building
825 Nicollet Mall, Suite 735
Minneapolis, MN 55402
FAX: 952-806-9741

Edina Location
6565 France Ave South, Suite 200
Edina, MN 55435
FAX: 952-806-9741

Centralized Switchboard and Scheduling: 952-806-0011

Put your baby to sleep on his or her back. Both the American Academy of Pediatricians and The Centers for Disease Control and Prevention urge you to place your baby to sleep resting on his or her back, rather than on the stomach or side. This isn't necessary when your baby's awake or able to roll over both ways without your help. Because a baby's head is still soft and pliable, some newborns develop a flattening of the back of the head from sleeping on their backs, but in most cases, the flattening is harmless and easily treated.

Be sure your baby is placed to sleep on his or her back when in the care of others. If your baby is used to sleeping on his or her back, it's especially important to avoid switching to the stomach position. Don't assume that others will place your baby to sleep in the correct position – insist on it. Advise sitters and child care personnel not to resort to the stomach position to calm an upset baby.

Don't smoke. A smoke-free environment is especially important during pregnancy and in your baby's first year of life.

Select bedding carefully. Use a firm mattress, rather than a waterbed or beanbag. Avoid placing your baby on thick, fluffy padding, such as lambskin or a thick quilt. These may interfere with breathing if your baby's face presses against them. For the same reason, don't leave pillows, fluffy toys or stuffed animals in your infant's crib.

To keep your baby warm, try a sleep sack or other sleep clothing that doesn't require additional covers. If you use a blanket, make it lightweight. Tuck the blanket securely at the foot of the crib, with just enough length to cover your baby's shoulders. Then place your baby in the crib, near the foot, covered loosely with the blanket. Don't cover your baby's head.

Place your baby to sleep in a crib or bassinet – not in your bed. Adult beds aren't safe for infants. A baby can become trapped and suffocate between the headboard slats, the space between the mattress and the bed frame, or the space between the mattress and the wall. A baby can also suffocate if a sleeping parent accidentally rolls over and covers the baby's nose and mouth.

Keep your baby nearby. Consider keeping your baby's crib or bassinet in your room at first. Infants who sleep in the same room – though not in the same bed – as their mothers have a lower risk of SIDS.

Consider breast-feeding. Some research indicates that breast-fed babies are at lower risk of SIDS.

Offer a pacifier. Sucking on a pacifier at naptime and bedtime may reduce the risk of SIDS. One caveat – if you're breast-feeding, wait to offer a pacifier until your baby is 1 month old and you've settled into a comfortable nursing routine. If your baby's not interested in the pacifier, try again later. Don't force the issue. If the pacifier falls out of your baby's mouth while he or she is sleeping, don't pop it back in.

Moderate room temperature. Keep the temperature in your baby's room at a level that's comfortable for you, not warmer than normal. If your baby is sweating around the neck or face, it probably means he or she is too warm or has a fever or illness. When this happens, use fewer covers – not more.

Some parents feel more secure when their newborn's heart rate and breathing are monitored electronically; however, monitoring is unlikely to prevent SIDS deaths.

Medical Arts Building
825 Nicollet Mall, Suite 735
Minneapolis, MN 55402
FAX: 952-806-9741

Edina Location
6565 France Ave South, Suite 200
Edina, MN 55435
FAX: 952-806-9741

Centralized Switchboard and Scheduling: 952-806-0011