

Sudden Infant Death Syndrome

Absolute CPR and Allied Health Training LLC

Sudden Infant Death Syndrome

In the United States **2 infants out of every 1000 pass away** to this unexplained circumstance.

SIDS is the **most common cause of death in infants** from 1 month to 1 year of age, with most deaths occurring between 2 and 4 months, according to the National Sudden Infant Death Syndrome



Welcome and Introduction

Welcome to Absolute CPR and Allied Health Training Sudden Infant Death Syndrome (SIDS) and Shake Baby Course

Today we will be reviewing SIDS and the current facts pertaining to why it occurs. Followed by Shake Baby Syndrome Course.

This program will offer simple yet important information in the areas of infant care and prenatal care to help reduce the risks of infants death to SIDS and SBS.



Program Outline



- SIDS-
 - Clinical Definition and what SIDS is NOT.
- Who SIDS affects-
 - Infants susceptible to SIDS.
 - Individuals affected by SIDS.
- Theories-
 - Latest theories on why SIDS occurs.
- Reducing the risk
 - Back to sleep Campaign
 - Safe Sleep
 - Other addressable risk factors
- Tips for child-care providers.

What is Sudden Infant Death Syndrome?

Sudden Infant Death Syndrome (SIDS) is the sudden, unexpected death of an apparently healthy infant, for which no cause can be identified even after:

- A thorough death scene investigation
- An autopsy
- A review of the infant and family's medical records.

SIDS Characteristics

SIDS is:

- Sudden and silent- Infants appear healthy
- SIDS is sudden and unpredictable. There are no signs or symptoms of SIDS.
- Currently unpredictable and unpreventable
- Designated as a diagnosis of exclusion

SIDS is not:

- Caused by vomiting, choking, or by minor illnesses such as colds or infections
- Contagious
- Child abuse

(NSIDRC 2004)

Statistics on SIDS

- In 2004, 2,246 infants died from SIDS making it the number 1 cause of death for infants between 1 month and 1 year of age.
- SIDS claims **more American babies** every year than all childhood cancers, leukemia, heart disease, cystic fibrosis, AIDS, and child abuse combined.

(HRSA 2004)

Year	Infant Mortality Total	Infant Mortality Rate	SIDS Total	SIDS Rate
1990	38,351	9.2	5,417	1.30
1991	36,766	8.9	5,349	1.30
1992	34,628	8.5	4,890	1.20
1993	33,466	8.4	4,669	1.17
1994	31,710	8.0	4,073	1.03
1995	29,505	7.6	3,397	0.87
1996	28,419	7.3	3,050	0.78
1997	27,968	7.2	2,991	0.77
1998	28,325	7.2	2,822	0.71
1999	27,864	7.0	2,648	0.66
2000	27,960	6.9	2,523	0.62
2001	27,523	6.8	2,234	0.55
2002	28,034	7.0	2,295	0.57
2003	28,025	6.8	2,162	0.52
2004	27,936	6.7	2,246	0.55

Infants Susceptible to SIDS

- SIDS occurs across all racial, ethnic and socio-economic boundaries. **ANY BABY IS SUSCEPTIBLE TO SIDS!**
 - SIDS rates are higher among African American and American Indians.
 - SIDS rates are lowest among Asians and Hispanics.
 - Most SIDS deaths, 70%, occur before four months and another 20% occur before six months.
 - Males are 50% more likely to die of SIDS than females.

(Horchler and Morris, 1994)

SIDS Risk Factors

Risk factors for SIDS include If an Infant is:

- Overheated
- In an at risk sleeping environment and position
- Born to mother's who smoked, or abused drugs or alcohol during or after pregnancy
- Exposed to smoke after pregnancy
- Born premature
- A sibling of a SIDS infant or at risk infant
- Born to teen mothers
- Born through late or no prenatal care

ANY CHILD, REGARDLESS OF THE PRESENCE OF RISK FACTORS, IS SUSCEPTIBLE TO SIDS.

Individuals Affected by SIDS

- It is estimated that one hundred individuals are affected by every SIDS death including:
 - Parents and siblings
 - Relatives-
 - Grandparents
 - Aunts and uncles
 - Friends
 - Church family
 - Medical care providers
 - Child care service providers



Theories on SIDS



- There are over 400 theories on what causes SIDS.

(Horchler and Morris, 1997)

- Two Popular Schools of Thoughts suggest:

- Infants are born abnormal and are predisposed to SIDS.

(Filiano and Kinney, NSIDRC, 2004)

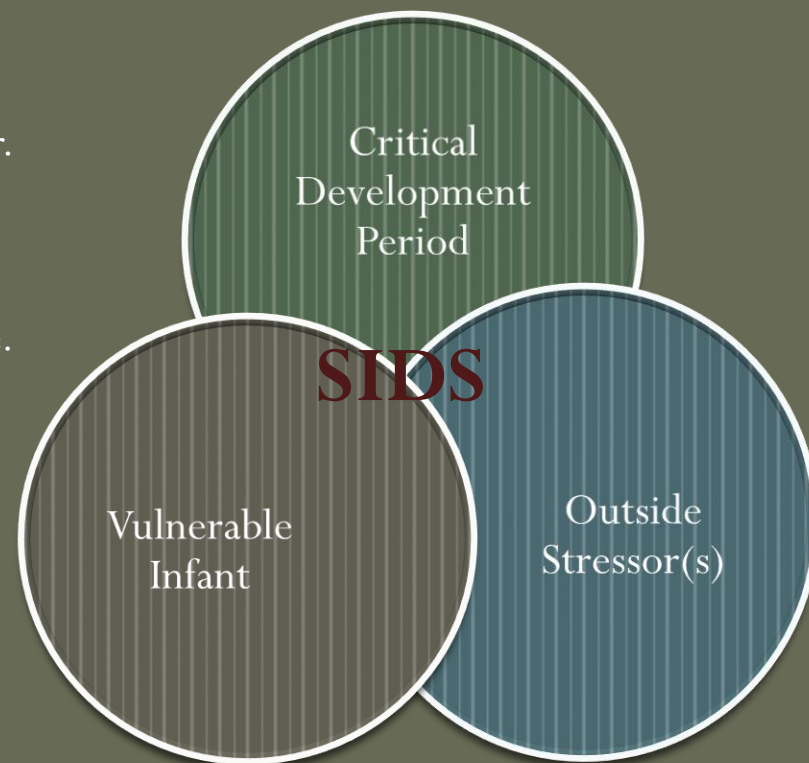
- Infants are normal yet succumb to SIDS through an abnormal event in their phases of development.

(Horchler and Morris, 1997)

The Triple-Risk Model

Many scientists are adopting this model in their search for the cause of SIDS. When all three elements interact a sudden infant death may occur.

- **Vulnerable Infant**- An infant with an underlying defect or abnormality making the baby vulnerable.
- **Critical Development Period**- The first 6 months of an infant are filled with developmental changes that may temporarily effect the infant's biological systems.
- **Outside Stressor(s)**- Environmental factors that may effect an infant. (ex. Overheating, prone sleeping, smoke exposure).



(Filiano and Kinney, NSIDRC, 2004)

Reducing The Risk!

Back To Sleep Campaign

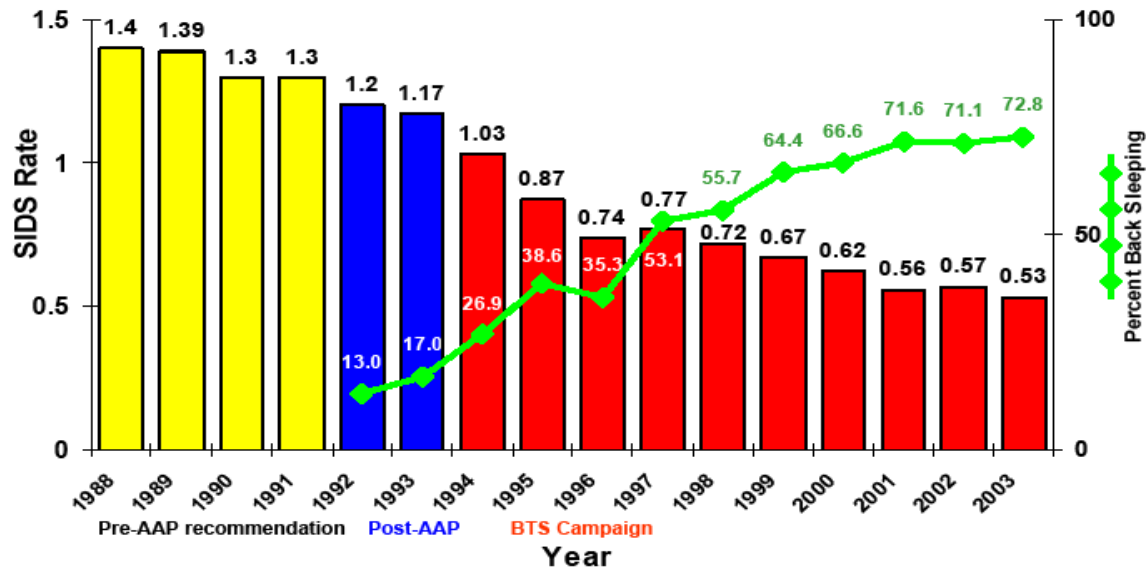
- In 1992, the American Academy of Pediatrics recommended that babies be placed on their backs while sleeping.



(National Institutes of Health 2005)

Back To Sleep

SIDS Rate and Sleep Position, 1988-2003
(Deaths per 1,000 Live Births)



Sleep Position Source: NICHD Household Survey SIDS Rate Source: National Center for Health Statistics, CDC

In 1994, the National Institute of Health began its “Back To Sleep” campaign promoting that all infants be placed on their backs while sleeping. SIDS rates fell 40 % in the U.S. alone following the campaign.

Back to Sleep to Reduce the Risk

- Provide the infant with “**tummy time**” while awake and observed to avoid “flat” heads and so the infant may develop strong shoulder muscles.
- **Change the direction that your baby lies in the crib from one week to the next.** For example, have the baby’s feet point toward one end of the crib for a few days, and then change the position so his or her feet point toward the other end of the crib. This change will help make sure the baby is not resting on the same part of his or her head all the time.
- Avoid too much time in car seats, carriers, and bouncers while awake. Also, get “cuddle time” with the baby by holding him or her upright over one shoulder often during the day.



Safe Sleep to Reduce the Risk

The sleeping environment of an infant can have a drastic effect on reducing the risk of SIDS. Reduce risks by:

- Placing the baby's crib in the same room with you (but **NOT** bringing the baby in your bed to sleep with you)
- Placing the baby on a **FIRM** mattress with **TIGHT** fitting sheets.
- **NEVER** placing bumper pads quilts, pillows, or fluffy toys in the baby's cribs.
- Keep the infant's room temperature comfortable for YOU (**avoid overheating**).
- Keep the environment **SMOKE-FREE** before and after pregnancy.
- Offer a pacifier at nap or bed-time (never coat the pacifier with Karo syrup or honey).
- **Avoid commercial positional devices designed to reduce the risk of SIDS.**
- **DON'T** place your baby on a couch, water bed, or bean bag chair to sleep.

A Safe Sleep Environment

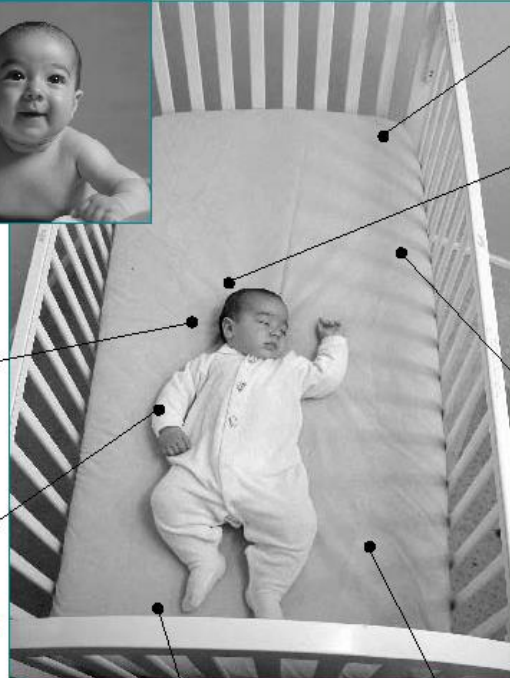
What does a safe sleep environment look like?

Lower the risk of sudden infant death syndrome (SIDS).

Don't forget Tummy Time when the baby is awake and is being watched.



Use a firm mattress in a safety-approved* crib covered by a fitted sheet.



Make sure nothing covers the baby's head.

Place your baby on his or her back to sleep for naps and at night.

Do not use pillows, blankets, sheepskins, or pillow-like bumpers in your baby's sleep area.

Use sleep clothing, such as a one-piece sleeper, instead of a blanket.

Do not let anyone smoke near your baby.

Keep soft objects, stuffed toys, and loose bedding out of your baby's sleep area.

Other Risk Reducing Steps

- Have early and regular prenatal care.
- Ensure the infant is taken to all medical visits, vaccines, and checkups.
- Breastfeeding reduces the risk.
- Avoid alcohol and substance abuse before and after pregnancy.
- Tell everyone who takes care of the infant to place him/her on his/her back to sleep.



Tips for Child Care Providers

- Educate staff on SIDS
- Always place infants Back to Sleep
- Create the Safe Sleep Environment for infants

Remember, SIDS is unpreventable and **NO ONE** is to blame.

References

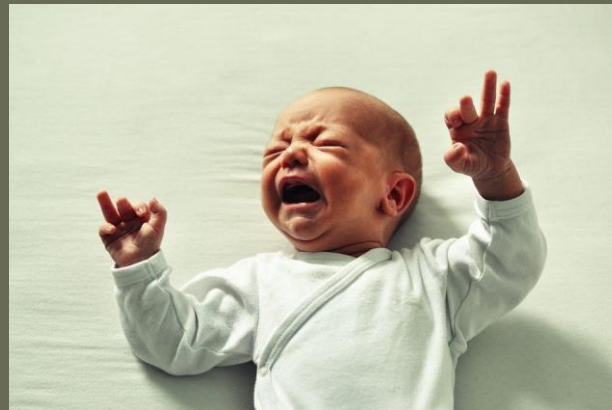
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Shake Baby Syndrome

Babies are fragile. Please don't shake a child.

*A flower bloomed already wilting.
Beginning its life with an early
ending.*

R.J. Gonzales



What is Shaken Baby Syndrome?

When a baby is vigorously shaken, the head moves back and forth. The sudden whiplash motion can cause bleeding inside the head and increase pressure on the brain, causing the brain to pull apart and resulting in injury to the infant. This is known as shaken baby syndrome and is one of the leading forms of fatal child abuse.

A baby's head and neck are susceptible to head trauma because his or her muscles are not fully developed and the brain tissue is exceptionally fragile. Head trauma is the leading cause of disability among infants and children. Baby's heads are large and heavy, making up about 25% of their total body weight. Their neck muscles are too weak to support such a disproportionately large head. Shaken Baby Syndrome occurs most frequently in infants younger than 6-months old, yet can occur up to age three. Often there are no obvious outward signs of inside injury, particularly in the head or behind the eyes. In reality, shaking a baby, if only for a few seconds, can injure a baby for life. These injuries can include brain swelling and damage, cerebral palsy, mental retardation, developmental delays, blindness, hearing loss, paralysis and death. When a child is shaken in anger or frustration, the force is multiplied five or ten times greater than it would be if the child had simply tripped or fallen.

How does it happen?

- Parents or caregivers may shake a baby because it is crying for a long time, and they may think that shaking the baby will make him or her stop crying.
- Some parents or caregivers may be under stress for various reasons, and may become frustrated and unable to cope with the responsibilities of caring for a child.
- Other caregivers may simply not know that shaking a baby can be so dangerous.
- Frustrated people or other people responsible for a child's care feel that shaking a baby is a harmless way to make a baby stop crying.
- The number one reason why a baby is shaken is because of inconsolable crying.
- This is mostly done due to frustration or anger of the caretaker
- This may result in permanent brain damage
- People who are most likely to shake a baby have a direct connection to the baby (father or mother) or an indirect connection (babysitter, secondary family members), and are both male and female. Shaken baby syndrome can happen among families of any ethnicity, any income range and with any type of family composition.

What Happens in a Shaking Baby Occurrence?

- When shaking occurs, the brain bounces within the skull cavity, bruising the brain tissue. The brain swells, creating pressure and leading to retinal (back of the eye) bleeding. This can cause blindness. Some blood vessels feeding the brain are torn away, leading to additional brain damage or abnormalities. Blood pools within the skull, creating more pressure. When a child is shaken in anger or frustration, the force is multiplied five or ten times greater than it would be if the child had simply tripped or fallen.

Initial Symptoms	Long Term Effects
Breathing may stop	Learning Disabilities
Seizures	Physical Disabilities
Limp Arms and legs	Visual Disability
Excessive Drooling	Speech Disability
Heart may Stop	Seizure
Death	Death
Poor Feeding	

Prevention Measures

If you or someone else shakes a baby, whether accidentally or on purpose,

- Call 911
- Take the child to the emergency room immediately..

Remember:

- Bleeding inside the brain can be treated.
- Immediate medical attention will save your baby
- Help prevent future problems
- Possibly save the baby's life



Suggestions for Prevention

PREVENTION MEASURES	
Hug and Cuddle Gently	
Never throw or shake a baby	Give the baby a pacifier
Take the baby for a stroller ride	Lay the baby tummy down across your lap and rub or pat his back
Make sure the baby is fed, burped and dry	Ask another caregiver to “take over for a while
Make sure clothing is not too tight	Offer a noisy toy or rattle
Always provide support for the baby’s head and neck	Sit down, close your eyes and count to 20
Play music or sing to the baby	Put the baby in a front carrier close to your body and breath slowly
Gently rock or walk the baby	Don’t pick the baby up until you feel calm

