

# Shaken Baby Syndrome

By Susan Palmer, Ph.D.



## What Is The Arc's Position?

The nation must continue to investigate the causes, reduce the incidence, and limit the consequences of intellectual and/or developmental disabilities through education, research, advocacy, technical assistance and support. Read the entire Position Statement at [www.thearc.org](http://www.thearc.org).

Find Out More:  
National Center on Shaken  
Baby Syndrome, 1-888-273-  
0071, [www.dontshake.org](http://www.dontshake.org).

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## What Is Shaken Baby Syndrome (SBS)?

Shaken baby syndrome (or SBS) is caused by vigorous shaking of an infant or young child by the arms, legs, chest or shoulders. Forceful shaking can result in brain damage leading to intellectual or developmental disabilities, speech and learning disabilities, paralysis, seizures, hearing loss and even death. It may cause bleeding around the brain and eyes, resulting in blindness. A baby's head and neck are especially vulnerable to injury because the head is so large and the neck muscles are still weak. In addition, the baby's brain and blood vessels are very fragile and easily damaged by whiplash motions, such as shaking, jerking and jolting. Shaken baby syndrome has been identified by other names such as abusive head trauma, shaken brain trauma, pediatric traumatic brain injury, whiplash shaken infant syndrome and shaken impact syndrome.

## How Is SBS Diagnosed?

Shaken baby syndrome is difficult to diagnose, unless someone accurately describes what happens. Physicians often report that a child with possible shaken baby syndrome is brought for medical attention due to falls, difficulty breathing, seizures, vomiting, altered consciousness or choking. The caregiver may report that the child was shaken to try to resuscitate it. Babies with severe or lethal shaken baby syndrome are typically brought to the hospital unconscious with a closed head injury. To diagnose shaken baby syndrome, physicians look for retinal hemorrhages (bleeding in the retina of the eyes), subdural hematoma (blood in the brain) and increased head size indicating excessive accumulation of fluid in the tissues of the brain. Damage to the spinal cord and broken ribs from grasping the baby too hard are other signs of shaken baby syndrome. Computed tomography (CT) and magnetic resonance imaging (MRI) scans can assist in showing injuries in the brain, but are not regularly used because of their expense.

A milder form of this syndrome can also be observed and may be missed or misdiagnosed. Subtle symptoms which may be the result of shaken baby syndrome are often attributed to mild viral illnesses, feeding dysfunction or infant colic. These include a history of poor feeding, vomiting or flu-like symptoms with no accompanying fever or diarrhea, lethargy and irritability over a period of time. Often the visit to the medical facility does not occur immediately after the initial injury. Without early medical

intervention, the child may be at risk for further damage or even death, depending on the continued occurrences of shaking.

## **How Many Children Are Affected by SBS?**

The true incidence is not known, but estimates range from an annual figure as low as 600 cases per year in the United States to as high as 1400. What is known is that Shaken Baby Syndrome is the most common cause of mortality and accounts for the most long-term disability in infants and young children due to physical abuse (Reece & Kirschner, 1998). One shaken baby in four dies as a result of this abuse (Poissant & Linn, 1997). Head trauma is the most frequent cause of permanent damage or death among abused infants and children, and shaking accounts for a significant number of those cases (Showers, 1992). Some studies estimate that 15 percent of children's deaths are due to battering or shaking and an additional 15 percent are possible cases of shaking (Showers, 1997). The victims of shaken baby syndrome range in age from a few days to five years but most often involve children younger than 2 years of age (American Academy of Pediatrics, 2001).

## **Who Is Responsible for Shaking Babies?**

While shaken baby abuse is not limited to any special group of people, males tend to predominate as perpetrators in 65 to 90 percent of cases. In the United States, adult males in their

early 20s who are the baby's father or the mother's boyfriend are typically the shaker. Females who injure babies by shaking them are more likely to be baby-sitters or child care providers than mothers (Showers, 1997). Frustration from a baby's incessant crying and toileting problems have been described as events leading to severe shaking. The adult shaker also may be jealous of the attention which the child receives from his or her partner.

## **What Happens to a Child Who Has Been Severely Shaken?**

There are high mortality rates (chance of dying from the injury) among infant victims, ranging from 15% to 38%, with a median of 20% to 25% (American Academy of Pediatrics, 2001). Immediate medical attention can help reduce the impact of shaking, but many children are left with permanent damage from the shaking. Approximately 25% of shaken babies die from their injuries (Torpy, Lynn & Glass, 2003). Of those who survive, 80% acquire various permanent disabilities, including intellectual disabilities and/or developmental disabilities, vision loss, hearing impairments, seizure disorders, cerebral palsy, sucking and swallowing disorders, autism, impaired cognitive and/or motor skills, behavior problems and permanent vegetative state (National Center on Shaken Baby Syndrome, 2011). The treatment of survivors falls into three major categories: medical, behavioral and educational. In addition to medical care, children may need speech

and language therapy, therapy, physical therapy, occupational therapy and special education services. Some may need the assistance of feeding experts and behavioral consultants (Showers, 1997).

## **How Is the Problem Being Addressed?**

Dr. John Caffey who first described shaken baby syndrome in 1972 called for a massive public education program to describe the dangers of shaking infants. Experts' views vary on the effectiveness of education. Some experts believe that shaking is primarily the result of anger felt by an adult, combined with a loss of impulse control, and that the perpetrator is aware of the potential harm to the child. They say that shaken baby syndrome requires a great deal of force by the shaker, such that the ordinary person would recognize the action as harmful to a child (Showers, 1997). Other experts believe lack of knowledge about the dangers of shaking is a contributing factor and that most people don't intend to harm or kill children by shaking them. Thus, they believe physicians, social workers, educators, attorneys, families and others should collaborate to educate the public about preventing shaken baby syndrome. In addition to public education, other proposed strategies to reduce the problem include identifying families at high risk for abuse and providing supports to reduce stress and funding and monitoring high quality child care, so that parents leave children with safe caregivers.

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## How Can People Be Educated about the Dangers of Shaking Babies?

Parents should receive information about shaken baby syndrome prevention in the hospital and/or at their child's two-month immunization appointment. Pediatricians and nurses should talk to parents about their level of stress and how they respond to a crying infant who cannot be readily calmed. They can discuss adequate care for infants and how the family is adjusting to the new family member. Guidance can be given to let parents know that a crying infant should never be shaken and what to do when their frustration is overwhelming. Any professional or experienced caregiver who interacts with parents of newborns and young children can assist in this effort.

Child caregivers, teenage baby sitters and respite workers should be warned by parents and others of the dangers of shaking a child. Day care centers should train staff and display shaken baby information in their facilities to inform both workers and parents. All child care providers should be screened by the parent to determine the potential caregiver's ability to understand infant behavior and how he or she might handle stressful situations, such as incessant crying. Social service agencies, state and national agencies and hospitals need to educate the public as well. Some agencies can assist parents or caregivers who may have a strong or recurrent impulse to shake their children, such as CHILDHELP's National

Child Abuse Hotline (1-800-422-4453 or 1-800-4-ACHILD). For more information about Shaken Baby Syndrome, contact the National Center on Shaken Baby Syndrome toll free at 1-888-273-0071 or visit their web site at [www.dontshake.org](http://www.dontshake.org).

## Message to Caregivers: Prevent Shaken Baby Syndrome

Don't shake a baby! Do not handle a baby if you are angry. Shaking can cause brain damage, vision loss and other injuries. If you are afraid you might hurt your child, follow these three simple steps:

### 1. STOP

- Place the baby in a safe place such as a playpen or a crib.

### 2. CALM DOWN

- Sit down or walk out of the room—but not too far away that you can't hear the child.

- Listen to music for a short time. Call a friend or relative for support and advice.

- Run the vacuum cleaner to drown out crying noise. This noise also calms some babies.

- Remember that crying may indicate hunger, pain or illness, discomfort, teething, earache or other problems. If you can't calm the baby the crying continues for a long time, call the doctor.

### 3. TRY AGAIN

- When you have calmed down, resume trying to help the baby.

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## Resource:

*The Shaken Baby Syndrome: A multidisciplinary approach* (2002) published by The Haworth Maltreatment & Trauma Press. Order on line at the American Academy of Pediatrics web site at [www.aap.org](http://www.aap.org) or call 1-847-434-4000.

The Arc thanks Susan Palmer, Ph.D., University of Kansas and former staff member of The Arc.

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