### What is Shaken Baby Syndrome?

"Shaken Baby Syndrome" (SBS) is the term used to describe the collection of signs and symptoms resulting from a child being shaken violently. It is a serious acquired brain injury caused when a frustrated adult holds an infant or toddler by the trunk or arms and shakes back and forth in a jerking, whiplash motion. Most cases occur in children under one year of age, although there are documented cases of SBS in children as old as five.

Life threatening injuries can occur during shaking because a baby's neck muscles lack the strength to control their head movements. Babies are extremely vulnerable to the injuries produced by the whiplash motion.

One in four shaken babies dies as a result of this abuse. 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. An estimated 50,000 cases of SBS occur each year in the United State. More than 60% of victims are males.

Shaken babies may sometimes be diagnosed with "Shaken/Impact Baby Syndrome" as impact injuries, such as skull fractures, occur when children are thrown down after being shaken.

### What are the symptoms of SBS?

While data on outcomes is limited, studies suggest that fewer than 10-15% of shaken babies recover completely. The degree of brain damage depends on the amount and duration of the shaking and the force involved in the impact of the head. Therefore symptoms range from mild to severe. Milder or more subtle symptoms can easily be missed or misdiagnosed and have less defined outcomes, however immediate medical attention may help reduce the effect of shaking.

There are three indicators commonly found in most moderate to severe cases of SBS:

- Subdural hematoma (collecting of blood between the brain and the skull)
- Cerebral edema (swelling of the brain)
- Retinal hemorrhage (bleeding behind the eyes)

Uncontrolled swelling of the brain is considered the most common cause of death in children who suffer SBS. Bleeding behind the eyes is the cause of partial or complete loss of vision among survivors.

Results of milder cases of SBS can be:

- Developmental delays
- Seizure disorders
- Learning disabilities
- Personality changes
- Behavioral problems
- Partial loss of vision
- Feeding/swallowing disorders
- Irritability
- Nausea and vomiting
- Lethargy
   Moderate to severe SBS can result in:
- Seizures/convulsions
- Coma/altered consciousness
- Breathing problems
- Extreme lethargy (sleepiness or inactivity)
- Paralysis
- Fixed pupils/glassy stare
- Bone fractures in ribs from being held tightly by the trunk
- Bone fractures of the skull from impact injury
- Long bone fractures (arms and legs)
- Retinal detachment (inner-most layer of the eye detaching from the rest of the eyeball)
- Tearing of the child's brain tissues (Axonal shearing)
- Complete loss of vision
- Cerebral palsy
- Permanent vegetative state
- Death

### Who shakes a baby and why?

Males tend to inflict injuries by shaking babies in 65-90% of cases. Adult males in their early twenties who are the baby's father or the mother's boyfriend are typically the shaker. Females who injure babies by shaking tend to be baby-sitters or child care providers. However, it is important to remember that any person when confronted with an inconsolable baby, lack of sleep and outside stressors can be at risk for dangerous and impulsive behavior.

Crying is the only way babies have to tell us that they need something, such as food, to be changed or held. Crying is an annoying sound. It is supposed to be. If it was a pleasant sound, crying would be easy to ignore and the baby's needs would never be met. Crying can sometimes appear constant and void of rational reason, such as with babies who have colic.

Crying is the number one reason that babies are shaken. A frustrated or stressed caregiver will have a difficult time calming a crying infant. Lack of sleep and other life stresses can increase feelings of helplessness and frustration. Ironically, the abusive shaking behavior may be self-reinforcing, because the infant who is shaken may stop crying due to the injuries inflicted.

#### How is SBS diagnosed?

Shaken Baby Syndrome is sometimes difficult to recognize and even more difficult to prove. The reason is that babies who are shaken often show no outward signs of abuse and this type of abuse generally occurs in the absence of witnesses. A CT (computerized tomography) scan or MRI (magnetic resonance imaging), of the head can detect subdural hematomas. A simple eye exam can detect the presence of retinal hemorrhages. Bone fractures are seen in conventional x-rays.

There are no firm answers as to the exact force and number of shakes necessary to cause injury, however medical professionals state that injury producing shaking is often so violent that any reasonable observer would recognize it to be dangerous to the child.

The presence of the common indicators, with or without other symptoms, is no longer easily confused with common excuses such as falls, choking, illness or shaking in order to resuscitate.

Shaken Baby Syndrome is completely preventable. A severely injured child means an injured family, as the lives of parents and siblings of victims of SBS are permanently altered whether the child survives or dies. Once brain cells are damaged, they are never regenerated or replaced.

### What can a parent or caregiver do?

The first step in attempting to console a crying baby is to try to meet the baby's needs – feeding, changing or holding the baby. There are other strategies that can be used to calm a baby as well as the caregiver:

- Rocking
- Walking
- Taking the baby for a drive
- Patting
- Calling a friend or family member for support
- Music
- Most importantly: Put the baby in a safe place such as the crib and use the time to calm down before making another attempt to console the baby. It is okay to let an infant cry if the caregiver has tried to calm him/her by meeting the baby's needs. If the crying goes on for a very long period, then the baby should be checked by a physician to be sure there isn't an illness or pain causing the child to cry.

### Where can you turn for support and additional information?

The Shaken Baby Alliance, 817-882-8686, maintains a database of other victim families willing to offer support. The also have a support group connected by the Internet for families and professionals. More information is available at the web site: <a href="http://www.shakenbaby.com">http://www.shakenbaby.com</a> or e-mail toinfo@shakenbaby.com.

Parents or caregivers who are struggling with their children may receive help and counseling at CHILDHELP: 1-800-4-A-CHILD or The National Child Abuse Hotline at: 1-800-CHILDREN.

Or Prevent Child abuse Wyoming at <a href="mailto:info@pcawyoming.org">info@pcawyoming.org</a> or (307) 637-8622

### For more information about SHAKEN BABY SYNDROME

#### CONTACT:



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Disability Brochure #18



## **Characteristics and Coping Strategies**

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