

# PREVENTING SHAKEN BABY SYNDROME

A Guide for Health Departments and  
Community-Based Organizations

*A part of CDC's "Heads Up" Series*



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
CENTERS FOR DISEASE CONTROL AND PREVENTION



## LEARNING WHAT TO LOOK FOR

### ***SBS Signs and Symptoms***

Babies, newborn to one year (especially babies ages 2 to 4 months) are at greatest risk of injury from shaking.<sup>6</sup> SBS injuries are not always visible. However, babies with SBS may display some outward signs.<sup>7,8</sup> Parents, family members, caregivers, or others in close and regular contact with an infant should seek medical attention right away if they notice any of the signs and symptoms listed below.

- Significant changes in sleeping patterns or inability to be awakened,
- Vomiting (more than usual),
- Convulsions or seizures,
- Increasing irritability,
- Uncontrollable crying,
- Inability to be consoled, and
- Inability to nurse or eat.

In more severe cases, babies may be:

- Unresponsive
- Unconscious

Babies should be taken to the emergency department immediately if they are experiencing any of these *severe* signs and symptoms of SBS listed above.

<sup>6</sup>Carbaugh SF. Understanding shaken baby syndrome. *Adv Neonatal Care* 2004;4(2):105–16.

<sup>7</sup>Miehl NJ. Shaken baby syndrome. *J Forensic Nurs* 2005;1(3):111–7.

<sup>8</sup>Carbaugh SF. Understanding shaken baby syndrome. *Adv Neonatal Care* 2004;4(2): 105–16.

### ***Factors that Put an Infant at Risk***

The following factors increase an infant's risk of being shaken,<sup>9,10,11</sup> particularly when combined with a parent or caregiver who's not prepared to cope with caring for a baby:

- Being less than 1 year of age,
  - Babies less than 1 year of age are at the greatest risk, but SBS has been reported in children up to 5 years of age.
  - Babies (especially babies ages 2 to 4 months) are particularly at risk of injury from shaking, because they are small in relation to the size of adults who may pick them up and shake them, and they tend to cry more frequently and longer than older babies.
- Infant prematurity or disability,
- Being one of a multiple birth,
- Inconsolable and/or frequent crying,
- Prior physical abuse or prior shaking, and
- Most SBS victims are male.

### ***Factors that Can Increase Parents' or Caregivers' Risk for Harming a Baby***

Most SBS perpetrators are parents and their partners, with the majority of the perpetrators being the male parent or partner. The following factors increase a parent's or caregiver's risk of shaking a baby, particularly when combined with not being prepared to cope with caring for a baby.<sup>12</sup>

- Frustration or anger resulting from an infant's crying,
- Being tired,
- Having limited anger management or coping skills,
- Limited social support,
- Young parental age,
- Unstable family environment,

<sup>9</sup>Hoffman, JM. A case of shaken baby syndrome after discharge from the newborn intensive care unit. *Adv Neonatal Care* 2005;5(3): 135–46.

<sup>10</sup>Black DA, Heyman RE, Smith Slep AM. Risk factors for child physical abuse. *Aggress Violent Behav* 2001;6(2–3): 121–88.

<sup>11</sup>Keenan HT, Runyan DK, Marshall SW, Nocera MA, Merten DF, Sinal SH. A population-based study of inflicted traumatic brain injury in young children. *JAMA* 2003;290(5):621–6.

<sup>12</sup>Miehl NJ. Shaken baby syndrome. *J Forensic Nurs* 2005;1(3):11–7.

- Low socioeconomic status,
- Unrealistic expectations about child development and child-rearing,
- Rigid attitudes and impulsivity,
- Feelings of inadequacy, isolation, or depression,
- Being a victim or witness to intimate partner violence, or
- Negative childhood experiences, including neglect or abuse.

### ***Diagnosing SBS***

Health care providers may be alerted to a possible SBS injury by *any* of the following:<sup>13</sup>

- Any infant or young child who presents with a history that is not plausible or consistent with the presenting signs and symptoms,
- The presence of a new adult partner in the home,
- A history of delay in seeking medical attention,
- A previous history or suspicion of abuse,
- The absence of a primary caregiver at the onset of injury or illness,
- Physical evidence of multiple injuries at varying stages of healing, or
- Unexplained changes in neurologic status, unexplained shock, and/or cardiovascular collapse.

There are a number of diagnostic tools that health care providers can use to assess the possibility of SBS in injured babies. In addition to a thorough history and physical exam, including ophthalmologic examination, physicians may use computerized tomography, magnetic resonance imaging, skeletal surveys, and other medical tests to diagnose SBS.

<sup>13</sup>Miehl NJ. Shaken baby syndrome. *J Forensic Nurs* 2005;1(3):11–7.