

Shaken Baby Syndrome (Abusive Head Trauma)

Shaken baby syndrome, also known as abusive head trauma, is a head or neck injury from physical child abuse. It happens when someone shakes a baby or hits the baby against something hard. Most cases happen when a parent or caregiver is angry, tired or upset because a baby won't stop crying or the child can't do something they expect, like toilet train. These injuries can cause permanent brain damage or death. People should never shake a baby for any reason.

Which children are at risk?

Most cases of shaken baby syndrome happen to babies and toddlers younger than 2 years old. Rarely, it can happen in children up to 5 years old. At special risk for abuse are children who have a lot of special needs or health problems that make them cry a lot, like colic and gastroesophageal reflux

How does it happen?

Things like gently bouncing a baby on a knee or riding in a bumpy car won't cause shaken baby syndrome; however, it can happen when someone:

- uses force to shake a child
- uses force to throw or drop a child on purpose
- hits the child's head or neck against an object, like the floor or furniture, or hits the child's head or neck with an object

Shaking a baby is so harmful because:

- Infants have poor neck strength and their heads are large compared with the size of their bodies. This lets the head move around a lot when shaken.
- When the head moves around, the child's brain moves back and forth inside the skull. This can tear blood vessels and nerves inside the brain, causing bleeding and nerve damage.
- The brain may hit against the inside of the skull, causing brain bruising and bleeding on the outside of the brain.
- Brain swelling builds pressure in the skull. This pressure makes it hard for blood, carrying oxygen and nutrients, to reach the brain, further harming it.

Signs of head trauma

In the most severe cases, babies and children may come to the ER, hospital, or doctor's office not awake, having seizures, or in shock.

In less severe cases, a shaken child may:

- move less than usual

- be cranky and hard to comfort
- throw up
- have trouble sucking or swallowing
- eat less than usual
- not smile or coo
- seem stiff
- have seizures
- have trouble breathing
- have skin that looks blue
- have pupils (the dark spots in center of the eyes) that aren't the same size
- be unable to lift their head
- have trouble focusing their eyes or tracking movement

Diagnosis

Parents or caregivers often won't say that the child was shaken or hit, so doctors may not know to check for head injury. Many signs of abusive head trauma, like fussiness and throwing up, are common in routine childhood illnesses. So, it can be hard for doctors to figure out that a baby was harmed. If shaken baby syndrome is suspected, doctors will:

- Do an eye exam to look for bleeding inside the eyes.
- Order X-rays of all the bones to look for new or healing breaks, which happen most in the arms, legs, skull and ribs.
- Order a CT or MRI of the head to look for:
 - o broken bones in the head (skull fractures)
 - o brain swelling
 - o brain bleeding

What can happen to a shaken baby?

Abusive head trauma often causes life-long harm to the brain and, sometimes, death. Babies and children who survive may have:

- poor eyesight or blindness
- hearing loss
- seizures
- delayed development
- problems with speech and learning
- problems with memory and focus
- cerebral palsy
- weakness or problems moving parts of the body
- problems with hormones controlled by the brain

If a child's problems are mild, they might not be noticed until the child starts school and has problems with learning, focus or behavior.

Shaken Baby Syndrome (continued)

Treatment

After abusive head trauma, a child may need long-term care from a team of health experts, such as:

- brain doctors (neurology)
- brain surgeons (neurosurgery)
- eye doctors (ophthalmology)
- hormone doctors (endocrinology)

They also need a pediatrician who can manage their ongoing complex care. They also might need support from therapists, such as:

- rehab medicine
- speech-language therapy
- physical therapy (PT)
- occupational therapy (OT)

Before age 3, a child can receive free speech therapy or physical therapy through state-run programs. After age 3, the child's school district provides any needed special educational services.

As kids get older, they may need special schooling and ongoing help to build language and daily living skills, like dressing.

Preventing shaken baby syndrome

Abusive head trauma is 100% preventable. A key part of prevention is increasing awareness of the dangers of shaking:

- Tell people caring for your baby to never shake the baby.
- Talk about normal crying so a caregiver is less likely to get upset.
- Talk about safe ways to calm a baby, such as swaddling, rocking or singing.
- Let caregivers know it's OK to put the baby or child in a safe place, walk away and take a break.