

# Child Abuse Awareness: Pediatric Abusive Head Trauma (PAHT)

## What is it?

### **CDC Definition:**

An injury to the skull or intracranial contents of an infant or young child (<5 years of age) due to inflicted blunt impact and/or violent shaking.

What is not included:

- Unintentional injuries resulting from neglectful supervision
- Gunshot wounds/stab wounds/penetrating trauma

PAHT can impact the entire brain mass. It is important to note, that it is typically NOT a one-time event and is often triggered by the infant/child crying. It is also referred to as Non-Accidental Head Trauma (NAHT) and is commonly known as Shaken Baby Syndrome.

## Signs or Symptoms:

Some signs or symptoms of particular concern – in of themselves, may not necessarily be an indicator; however, things to keep in mind. Your young people or parents know their babies and when they are not acting normal for them:

- Infants with bruises (more on bruises later)
- Vomiting without diarrhea or other sickness related indicators
- Irritability
- Lethargy, unusual sleepiness, sluggishness or seeming “spaced out”
- Seizures/Tremors
- Breathing difficulty/gasping for breath/stopped breathing

*\*Important to note - that any other medical cause should be ruled out. For example, seizures or tremors can be a result of vaccinations or some other medically related factor*

Consequences of abusive head trauma include:

- Bridging veins stretch, rupture, and bleed, leading to subdural bleeding
- Brain tissue is distorted/stretched during the event, causing damage to nerve cells and brain tissue (either temporary or permanent damage)
- DEATH (PAHT is the 3<sup>rd</sup> highest cause of infant/child fatality in America)

Infants are at greater risk due to:

- The inside of the infant skull is smoother whereas more developed skulls have grooves to hold the brain in place
- More space between the outside of the brain and the inside of the skull
- Relatively large head: body ratio and weak neck muscles
- Not as much protective covering around the individual nerve cells
- Infant brain is 25% more water than adult

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What **DOES NOT** cause an AHT injury:

- |                           |                               |
|---------------------------|-------------------------------|
| Short falls               | Bouncing a child on your knee |
| Rough play                | Immunizations                 |
| Vitamin C or D deficiency | Birth trauma                  |
| Toddlers and/or pets      |                               |

What you may see:

Skull fracture, scalp bruise(s), or scalp swelling

\*NOTE: the absence of evidence of impact does not mean impact did not occur\*

Other possibly associated injuries:

- Retinal hemorrhages
- Rib or other (typically in the back of infant/child) fractures
- Internal abdominal injury
- Bruising
- Brain swelling (bulging soft spot)

## **BRUISES:**

Normal accidental bruises in toddlers and older children are typically on the front of the body and over bony prominences (forehead, elbows, knees, and shins)

The TEN-4 Rule:

**T** - Torso

**E** - Ears

**N** – Neck

**4** – In a child 4 years of age or younger

Bruises in these areas on a child 4 yrs or under are causes for concern and potential indicators of abuse or neglect. **ANY** bruising, **ANYWHERE** on a child 4 months of age or younger is a red flag and your local child welfare agency should be contacted. Bruising is extremely rare in infants less than 6 months of age and uncommon in pre-ambulatory infants. The majority of infants are not mobile or moving about on their own prior to 4 months of age. Bruising is also the most overlooked sign of abuse.

Some key thoughts:

Infants with PAHT may look completely normal and/or uninjured from the outside.

The signs and symptoms can be hard to notice and easily mistaken for a less concerning problem

PAHT is sometimes missed and/or misdiagnosed by medical professionals.

The death rate for PAHT is approximately 20 to 30%

Long term disability is high among survivors – up to 90% affected

Severity of disability can range from mild to severe. Possibilities include: learning disabilities, emotional/behavioral issues, speech and language delays, vision/hearing, hormone/growth problems due to pituitary injury, and mild to permanent vegetative state.

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## Triggers:

Here are some situations that can be triggers for PAHT:

- Crying baby (#1 trigger)
- Parental stressors outside the home
- Child rearing stress (e.g. toilet training, misbehavior)
- Argument/familial conflict

## Helpful Reminders:

- It is okay for a baby to cry – it's how they communicate
- Accept that it is normal to feel frustrated and/or by a crying baby – and **it is okay** to take a break and ask for help

## Tips for soothing a crying baby:

- Ensure baby's immediate needs are met (feed, change, that nothing is irritating the baby, etc)
- Take the baby to a quiet room or a different area
- Hold the baby against your chest and walk or rock gently
- Take the baby for a ride in a car, stroller, or put in a baby swing
- Slow dance with baby
- Make the "shhhhh" noise in a baby's ear
- Play soft music near the child
- Pay attention to noise and lighting in the environment
- Check baby for signs of illness or injury – call the doctor if there are any concerns

## Tips for self care:

- Place baby on back in a safe sleeping environment (crib without padding, toys, etc) and go to another room to calm yourself. *It is okay for your baby to cry while you calm down.*
- Do something for yourself – exercise, take a shower, watch television, listen to your favorite music – check on baby every 10 to 15 minutes
- Take slow, deep breaths and count to 10 or 20 or more
- If none of these work, call a trusted support person

## Resources:

National Center on Shaken Baby Syndrome (NCBS)  
Prevent Child Abuse America (PCA America)  
Child Help USA

## Evidence Based Practice/Promising Practice:

1. Period of PURPLE Crying: <http://purplecrying.info/> is listed on the California Evidence Base for Child Welfare registry

\*The information in this tip sheet was provided by [Prevent Child Abuse Kentucky](#)