

Abusive Head Trauma

Including shaken baby syndrome | Recognition and assessment

Think beyond visible injury. An infant with unexplained lethargy, repeated vomiting, apnoea or seizures needs urgent assessment, even when there are no obvious bruises. [1-3]

What is abusive head trauma (AHT)?

AHT is an inflicted injury to the skull or brain of an infant or young child caused by violent shaking, blunt impact, or both. **Shaken baby syndrome** is an older, narrower term. AHT is preferred because more than one injury mechanism may be involved. Infants, especially those under one year, are particularly vulnerable. [1,2]

Violent forces can injure brain tissue and blood vessels. Bleeding, swelling and impaired oxygen delivery may worsen brain injury. Associated injuries can involve the eyes, neck, spine or other body parts. Gentle handling and ordinary comforting are not the same as violent shaking.

Signs students should recognise

Possible early or subtle signs	Emergency signs
Poor feeding; unusual irritability; repeated vomiting; reduced interaction; excessive sleepiness or altered behaviour.	Apnoea or abnormal breathing; cyanosis; seizures; reduced consciousness; unresponsiveness or collapse.

Other concerning findings include abnormal tone, a bulging fontanelle, unexplained bruising or fractures. These findings are not specific to abuse and must be interpreted through a full assessment. Absence of external injury does not exclude serious intracranial injury. [2,3]

History and findings that require further evaluation

An absent, changing or developmentally implausible explanation; a mismatch between the reported event and injuries; unexplained delay in seeking care; or bruising in a non-mobile infant should prompt escalation. Assess objectively, regardless of the family's appearance, income or background. [3,4]

Do not diagnose from a “triad” alone. Subdural bleeding, retinal haemorrhages and brain dysfunction may raise concern, but no isolated finding or simple checklist replaces a complete multidisciplinary evaluation. [3]

Immediate Nursing Care

Stabilise the child, prevent secondary injury and escalate concerns.

1 | Treat physiological instability first

Activate emergency help for apnoea, seizures or reduced consciousness. Assess airway, breathing and circulation; provide oxygen/ventilation and resuscitation according to paediatric protocols. Maintain cervical-spine precautions when trauma is suspected, without delaying airway care. [3]

Monitor oxygen saturation, respiratory pattern, pulse, blood pressure, temperature and neurological status. Trend pupils, age-appropriate consciousness score and limb responses. Check glucose promptly in a child with altered consciousness or seizures, according to protocol.

During a seizure, protect from injury, time the event and administer prescribed emergency treatment. Do not restrain the child or place anything in the mouth. Keep oral intake withheld when consciousness or swallowing safety is impaired.

2 | Support the diagnostic assessment

Assessment / investigation	Purpose
Full examination and history	Record neurological findings, head circumference, skin and oral injuries; assess for other trauma and alternative explanations.
Head CT / MRI as ordered	Urgent CT may identify acute bleeding or injury. MRI may further characterise brain and spinal injury when clinically appropriate.
Specialist eye examination	A trained ophthalmologist evaluates retinal findings. A routine bedside check does not exclude retinal injury.
Skeletal survey	Looks for occult fractures; generally indicated in children under 2 when physical abuse is suspected. Further imaging is specialist-directed.
Laboratory tests	Evaluate anaemia, coagulation and possible occult injury or medical mimics, based on clinical findings.

3 | Prevent further harm

Notify the senior clinician and safeguarding/child-protection team promptly. Follow local reporting requirements and institutional policy. Do not delay escalation while waiting for every investigation or a caregiver admission. Ensure supervised, safe care and an authorised discharge plan. [3,4]

Safeguarding & Prevention

Document facts, communicate calmly and teach a safe response to crying.

Document clearly and objectively

Record the time, observations, examination findings and who provided each part of the history. Quote significant statements in the person's own words. Describe injuries by site, size and appearance; use approved body maps/photography procedures. Document escalation, advice received and actions taken. Do not substitute accusations or assumptions for observations. [4,5]

Use calm, non-leading questions. Do not conduct an independent forensic interrogation or promise secrecy. Explain that the team must assess the injury and ensure the child's safety. Reporting procedures differ across CARICOM countries; follow the applicable local process.

Teach every caregiver a plan for crying

Check basic needs: hunger, nappy, temperature and signs of illness.

Try gentle soothing: hold, talk softly or gently rock the baby.

If overwhelmed: place the baby on their back in a safe cot with a firm, flat surface and no loose bedding. Step away briefly to calm down; check regularly.

Get support: ask a trusted adult to help. Seek clinical advice for persistent unusual crying or illness.

Never shake, hit or throw a baby. Teach the same message to everyone who cares for the child. [1,2]

After suspected shaking or impact: obtain emergency medical help immediately, even if the baby seems to improve. Give the treating team an accurate account so they can provide appropriate care.

Long-term needs and RENR priorities

Survivors may need follow-up for seizures, visual impairment, motor disability, developmental delay and learning or behavioural difficulties. Coordinate rehabilitation and family support.

Exam priority: stabilise an unwell child first, then continue safeguarding in parallel. A normal-looking scalp does not rule out brain injury; concerning findings require assessment, not an instant accusation.

References | Select to open

1. CDC: About Abusive Head Trauma
2. AAP HealthyChildren: Shaken Baby Syndrome / Abusive Head Trauma
3. AAP: Abusive Head Trauma in Infants and Children, Technical Report (2025)
4. Canadian Paediatric Society: Traumatic Head Injury Due to Child Maltreatment
5. NICE: Child Maltreatment, Recommendations