



## News Articles, Head and Neck Injuries

### Combating misinformation about abusive head trauma: AAP endorses new report

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Abusive head trauma remains a contentious pediatric diagnosis in the legal literature and media. Allegations of a poor scientific base for the diagnosis, along with a purported "shift" in the pediatric medical community's belief about the validity of the diagnosis, have resulted in overturned shaken baby convictions and an adverse effect on child protection and future prosecutions.

To better educate courts and legal colleagues on misconceptions about the diagnosis of abusive head trauma, a group of pediatric radiologists, pediatric neuroradiologists, child abuse pediatricians, an academic law professor and a pediatric neurosurgeon created a comprehensive evidence-based review on the subject matter. The document *Consensus Statement on Abusive Head Trauma in Infants and Young Children* was generated under the auspices of the Society for Pediatric Radiology and has been endorsed by the Academy, the European Society of Pediatric Radiology, the American Society of Pediatric Neuroradiology and the American Professional Society on the Abuse of Children.

The statement provides an evidence-based reference source on the current literature underpinning the clinical features strongly associated with abusive head trauma. More importantly, it arms the pediatrician with the scant evidence base for many court-proffered alternative theories to abusive head trauma, such as cerebral sinovenous thrombosis, hypoxic-ischemic injury and benign enlargement of the subarachnoid spaces. As many general pediatricians may be called to testify in child protection or criminal hearings, and consequently, may encounter these extraneous theories, this resource can assist pediatricians in impartially educating courts and legal colleagues.

#### Key points

Many conclusions can be drawn from the consensus statement; the most salient ones for the general pediatrician are the following:

- Although abusive head trauma is the current, most appropriate and inclusive diagnostic term for infants and young children who suffer from inflicted intracranial and associated spinal injury, this does not negate shaking or shaking with impact as a significant mechanism of injury.
- Lack of history, changing history or the incompatibility of history (i.e., short falls) with the severity of injury raise concerns for possible abusive head trauma.
- Relatively few infants with abusive head trauma have isolated intracranial injury without retinal hemorrhages, fractures or other manifestations of child abuse. These children need a comprehensive evaluation to rule out other diseases.
- No single injury is diagnostic of abusive head trauma. A compilation of injuries - most often including subdural hemorrhage, complex retinal hemorrhage and/or retinoschisis; rib, metaphyseal or other fractures; and soft tissue injury - leads to the diagnosis.
- There is no reliable medical evidence that the following processes cause the constellation of injuries associated with abusive head trauma: cerebral sinovenous thrombosis, isolated hypoxic ischemic injury, lumbar puncture and dysphagic choking/vomiting.
- There is no substantiation of the proposal that long-term consequences of birth-related subdural



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hemorrhage can result in later collapse, coma or death due to acute rebleeding into a previously asymptomatic chronic subdural.

- Subdural hematoma is uncommonly seen in the setting of benign enlargement of the subarachnoid space, and when present, abusive head trauma should be considered in the differential diagnosis.
- Abusive head trauma is a medical diagnosis and is *not* related to the legal assertion of murder. The use of the term "triad" in courts to confine the abusive head trauma diagnosis to three particular findings (subdural hemorrhage, retinal hemorrhage and encephalopathy) is a legal convention/artifact.

The legal implications of this, and other, professional society consensus statements are significant. Albeit low on the hierarchy of evidence-based medicine ratings, professional society consensus statements represent the highest level of medico-legal evidence. If thorough and well-conducted, they can impartially educate the court on the best evidence-based medical literature on a particular topic. More importantly, they can constitute prima facie evidence of "general acceptance" of a medical community's position on a particular topic, and thus aid the court in admissibility determinations of expert testimony on that topic. At the very minimum, professional society consensus statements can serve as strong cross-examination tools for hypotheses that lie outside mainstream medical opinion.

Thus, this consensus statement and the Academy's endorsement of it serve an important purpose in clarifying the most reliable literature on a purportedly contentious topic - abusive head trauma in infants and children. The statement supports the Academy's mission of advocating for the protection of infants and children, and it provides an impetus and example to other professional societies of how they can impartially assist courts on matters outside the courts' expertise.

*Dr. Narang, a co-author of the consensus statement, is a member of the AAP Council on Child Abuse and Neglect and the Committee on Medical Liability and Risk Management.*

### Resource

- ["Consensus Statement on Abusive Head Trauma in Infants and Young Children;" open access June 1-July 12](#)