T.G.	Thomas G.	Luerssen ^a
D.A.	Derek A.	Bruce ^b
R.P.	Robin P.	Humphreys ^c

^aDivision of Neurosurgery, James Whitcomb, Riley Hospital for Children, Indianapolis, Ind., USA; ^bMedical City Dallas Suite C-703, Dallas, Tex., USA; ^cDivision of Neurosurgery, The Hospital for Sick Children, Toronto, Ont., Canada

Position Statement on Identifying the Infant with Nonaccidental Central Nervous System Injury (the Whiplash-Shake Syndrome)

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Pediatric neurosurgeons are part of the responding team which evaluates and manages the injuries that are sustained by infants and small children as a result of alleged nonaccidental trauma. During the past 20 years, the clinical flags of such trauma which involves the child’s nervous system have become well established. The American Society of Pediatric Neurosurgeons wishes to bring these features to the attention of involved primary care physicians and support staff, so that the process of assessing the child’s condition can be managed effectively and in their best interest. Nonaccidental injury is the leading cause of death in infants aged 1 month to 1 year, in North America. Since the recognition of this traumatic syndrome in the early 1960s, the enormity of this particular public health problem has become progressively apparent. It is now clear that many of these inflicted injuries are misrepresented as accidents or are mistaken for a variety of other neurological disorders that can occur in infancy. Advances in our understanding of the patho-genesis and therapy of this injury and, more importantly, the identification and remediation of the underlying social and psychological factors that result in an inflicted injury to an infant will only come from correctly identifying, as early as possible, those infants who have been abused.

The American Society of Pediatric Neurosurgeons believes that all physicians who might encounter a child with this injury should be familiar with the clinical and radiographic characteristics of nonaccidental injury. The cardinal findings include: (1) an *uncertain history* or one that seems to be at odds with the physical findings, (2) the new onset of *seizures* in association with (3) *retinal hemorrhages* and (4) *intradural surface hemorrhages* on the CT scan or MRI. Infants presenting with these symptoms and signs may have suffered a nonaccidental injury. Further investigations and appropriate consultations with experts are recommended. The additional findings of *new or healing extremity and/or rib fractures* appears to be pathognomonic for nonaccidental injury.

F. Furthermore, the Society urges that physicians and surgeons responsible for the care of children suffering nonaccidental injury take it upon themselves to educate their colleagues regarding the importance of the early identification of these injured children and to reemphasize the social and legal obligations of reporting the injuries to the proper authorities.