

# Do sentinel injuries predict later physical abuse in infants?

SHEETS, L. K., LEACH, M. E., KOSZEWSKI, I. J., LESSMEIER, A. M., NUGENT, M., & SIMPSON, P. (2013). SENTINEL INJURIES IN INFANTS EVALUATED FOR CHILD PHYSICAL ABUSE. *PEDIATRICS*, 131, 701-707

## What can we learn from this study?

Although it is understood that more severe child abuse often is preceded by less severe abusive injuries, little is known about the prevalence of these types of injuries in young infants. This study examines the relation between sentinel injuries in young infants (that is, previous unexplained or implausible injuries in the medical record that are suspicious for abuse) and later physical abuse.

### Study details:

- **Population:** 401 infants (under age 1) evaluated for abuse by a hospital-based child protection team
- **Data source:** Medical records, CPS reports, and law enforcement reports
- **Methodology:** Case-control, retrospective study with four cohorts (definite abuse with head trauma, definite abuse without head trauma, intermediate concern for abuse, no concern for abuse)
- **Dates:** Data collected March 2001 to October 2011

## What are the critical findings?

Medical records of infants examined by a hospital-based child protection team for possible physical abuse were analyzed to determine whether they contained any instances of sentinel injuries.

- Among 200 infants who definitely had been physically abused, 27.5% had a sentinel injury on record. Among 100 infants who had intermediate concern for abuse, 8% had a sentinel injury on record. In contrast, none of the 101 infants determined not to have been abused had a sentinel injury on record.
- Sentinel injuries included bruising (80%), mouth injuries (11%), and other injuries (3%).
- The vast majority (95%) of sentinel injuries occurred before the infant was 7 months old, and most (66%) occurred before the infant was 3 months old.

## Why is this important for our work?

Sentinel injuries, such as bruising and injuries inside the mouth, in infants who have not yet started the pre-walking development stage of cruising should raise concern. Although the injuries themselves may be minor, they may indicate an elevated risk of more severe abuse in the future. Those who regularly interact with young infants — including caregivers, medical providers, and CPS workers — should be educated about the significance of these types of injuries. Providing interventions to caregivers of infants with sentinel injuries may help prevent later, more serious physical abuse.

This summary synthesized the findings from a single research study. To learn more, please review additional resources on sentinel injuries, including [How are Ohio Children's Hospitals identifying sentinel injuries to reduce child fatalities?](#)

For additional information, [see the abstract](#) or email [KMResources@casey.org](mailto:KMResources@casey.org).