



# **Crib Bumpers and the Infant Sleeping Environment: An Evaluation of the Scientific Evidence**

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## Executive Summary

Formal investigations into the safety of the infant sleeping environment by the Consumer Product Safety Commission (CPSC) have not identified bumper pads as a hazardous product or as a significant source of serious injury or death to sleeping infants (Wanna-Nakamura, 2010). Additionally, a recent review of epidemiological data and published scientific studies did not reveal any affirmative evidence of a causal link between crib bumpers and infant mortality (Schwartz, et al., submitted).

However, in an earlier article, *Deaths and Injuries Attributed to Crib Bumper Pads* (Thach et al., 2007), the authors raised concerns as to the safety and appropriateness of crib bumper pads as part of an infant sleep environment. The authors conclude, “this case series provides evidence that the risks from crib bumper pads or padded bassinets (death) outweigh the possible benefits provided by such padding (minor bruises and contusions)... We conclude that bumpers should not be placed in cribs or bassinets.”

Thach et al. (2007) has often been cited by others as scientific evidence that crib bumpers pose a serious risk of fatality to sleeping infants. For example, a team of researchers (Yeh, et al., 2011) publishing on injuries associated with cribs offered no independent analysis of infant fatalities associated with crib bumpers, nor did they present a specific analysis related to the potential for crib bumpers to mitigate injuries. Yet, citing Thach et al. (2007), they recommended that “the use of crib bumper pads is strongly discouraged because the possibility for serious injury, including suffocation and strangulation, greatly outweighs any minor injury they may prevent.”

The conclusions of Thach et al. (2007) about the suffocation hazards posed by crib bumper pads remain in contrast to the scientific findings of others. Re-analyses of the Thach et al. (2007) data is ongoing, and preliminary examination of currently available portions of their data set has raised concerns about the validity of their findings and conclusions. For example, methodological problems are apparent in the criteria used to select the incidents included for analysis and in the analytical treatment of other potential contributors. Furthermore, an attempt to recreate the “injury analysis” presented by Thach et al. (2007) highlighted similar methodological and analytical concerns. A more thorough analysis of the injuries that occur to infant children within the crib demonstrates that crib bumpers could serve to mitigate the injury potential (e.g., lacerations, fractures) across a variety of the common accident modes (e.g., contact with railings, extremities caught between railings).