

# Observation in the ER can reduce CT scans in kids

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The longer a child with minor blunt head trauma is observed in the emergency department, the less likely the child is to require computed tomography (CT) scan, according to the results of a study published online Friday in *Annals of Emergency Medicine*.

"Every hour of observation time in the [emergency department](#) was associated with a decrease in CT rates for children whether at low, intermediate or high risk of [traumatic brain injury](#)," said lead study author Lise E. Nigrovic, MD, MPH, of Boston Children's Hospital in Boston, Mass. "Furthermore, observation prior to CT decision-making for children with minor blunt head trauma was associated with reduced CT use without an observed delay in the diagnosis of significant traumatic brain injury."

Emergency physicians observed approximately half (49 percent) of the 1,381 enrolled children with minor blunt head trauma prior to deciding whether to obtain CT scans. The symptoms improved for most children during the period of observation. Every hour of observation reduced CTs by approximately 70 percent on average.

Every year, more than half a million children come to the emergency department for evaluation of blunt head trauma, but very few will have significant traumatic brain injury.

"As emergency physicians, we must balance the possibility of missing a clinically significant traumatic brain injury with the future risk of

malignancy associated with [ionizing radiation](#) exposure," said Dr. Nigrovic. "Observation prior to CT decision-making has the potential to further reduce CT rates without missing children with significant injuries, further improving the emergency care of children with minor blunt head injury."

**More information:** "[Impact of the Duration of Emergency Department Observation on Computed Tomography Use in Children with Minor Blunt Head Trauma](#)"

Provided by American College of Emergency Physicians

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