

# Brain injury researchers find retrieval practice improves memory in youth with TBI

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Brain injury researchers in New Jersey have identified retrieval practice as a useful strategy for improving memory among children and adolescents with traumatic brain injury (TBI).

"Retrieval Practice as an Effective Memory Strategy in Children and Adolescents with TBI" was published online ahead of print on October 10 by the *Archives of Physical Medicine & Rehabilitation*. This article is based on a collaborative study funded by Kessler Foundation and Children's Specialized Hospital. The authors are Julia H. Coyne, PhD, and James Sumowski, PhD, of Kessler Foundation and Children's Specialized Hospital; Jacquelyn M. Borg, PhD, and Leslie Glass, LCSW, of Children's Specialized Hospital and John DeLuca, PhD, senior VP of Research & Training at Kessler Foundation.

Difficulties with memory and learning are common after TBI in childhood. To improve academic achievement and long-term outcomes such as employment, effective neurorehabilitative strategies need to be identified. The researchers studied 15 patients with TBI and impaired memory, aged 8 to 16 years. They compared results of three memory strategies: massed restudy (cramming), spaced restudy (restudying of material at timed intervals), and retrieval practice (quizzing during the learning stage). Participants were tested on verbal-paired associates and face-name pairs.

"We found that retrieval practice resulted in better recall," said Dr. Coyne. "Overall, retrieval practice was the best learning strategy for each

of the participants, indicating that this method can improve learning and memory in this age group with TBI. There's a need for randomized controlled trials to confirm this finding, and look at the impact of [retrieval practice](#) on academic achievement."

Kessler Foundation and Children's Specialized Hospital agreed to partner in pediatric rehabilitation research in May 2014.

**More information: DOI:**

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Provided by Kessler Foundation

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