

Diabetic episodes affect kids' memory

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Children who have had an episode of diabetic ketoacidosis, a common complication of diabetes, may have persistent memory problems, according to a new study from researchers at the UC Davis Center for Mind and Brain.

Diabetic ketoacidosis occurs when the body is lacking insulin and burns fat for energy instead of sugar. Apart from nausea, vomiting and fatigue, patients can feel mentally sluggish. If the condition is not treated, patients may fall into a coma. The new study, published online Oct. 15 in the *Journal of Pediatrics*, shows that [children](#) known to have had such an episode in the past performed worse on memory tests than children with [diabetes](#) who had not had such an episode.

Diabetic ketoacidosis -- and its consequences -- can be avoided with proper glucose control in patients known to have diabetes, said Simona Ghetti, associate professor at the UC Davis Department of Psychology and the Center for Mind and Brain. Many cases, however, occur at the time of diagnosis of diabetes and these cases are more difficult to detect early.

"These results underscore the importance of maintaining control of known diabetes and prompt diagnosis of new cases should diabetic ketoacidosis symptoms arise," Ghetti said.

The UC Davis researchers studied 33 children with [type 1 diabetes](#) and a history of diabetic ketoacidosis, and 29 diabetic children with no history of such an episode. They compared the children's ability to recall events

and associations, as measured by simple tests.

Children with a history of ketoacidosis performed significantly worse on the memory tests than children without a history, they found.

The results back up anecdotal accounts from parents, who complain of slight but consistent memory deficits in their children with type 1 (insulin-dependent) diabetes that are not captured by IQ measures or other typical assessments, such as school grades, Ghetti said.

Source: University of California - Davis

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