

Moderate hypoglycemia impacts language processing

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Photo: U.S. National Kidney and Urologic Diseases Information Clearinghouse

(HealthDay)—Moderate hypoglycemia is associated with deterioration in language processing in adults with and without type 1 diabetes, according to a study published online March 10 in *Diabetes Care*.

Kate V. Allen, from the Royal Infirmary of Edinburgh in the United Kingdom, and colleagues examined the effects of [hypoglycemia](#) on [language processing](#) in 20 adults with type 1 diabetes and 20 healthy volunteers. The effects of hypoglycemia on the correlation between working memory and language (reading span), grammatical decoding (self-paced reading), and grammatical encoding (subject-verb agreement) were examined using language tests.

The researchers found that there was a significant deterioration in reading span and a decrease in correct responses with hypoglycemia. During hypoglycemia, the reading time for the first sentence fragment increased on the self-paced reading test; for the reading of the next fragment, hypoglycemia had more of an effect on [healthy volunteers](#) than on adults with type 1 diabetes. Neither the number of errors in sentence comprehension nor the time taken to answer questions was significantly affected by hypoglycemia. There was a deterioration of subject-verb agreement with hypoglycemia.

"Hypoglycemia caused a significant deterioration in reading span and in the accuracy of subject-verb agreement, both of which are practical aspects of language involved in its everyday use," the authors write. "Language processing is therefore impaired during moderate hypoglycemia."

More information: [Abstract](#)
[Full Text \(subscription or payment may be required\)](#)

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