# Glucose variation doesn't affect microvascular complications

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(HealthDay)—Measures of glycemic variability in type 1 diabetes, based

on complete quarterly 7-point glucose profiles, fail to provide evidence that glycemic variability contributes to the risk of development or progression of microvascular complications beyond the influence of mean glucose levels, according to a study published online April 12 in *Diabetes Care*.

John M. Lachin, Sc.D., from George Washington University in Rockville, Md., and colleagues utilized data from the Diabetes Control and Complications Trial to assess the association of glucose variability within and between quarterly 7-point glucose profiles and the development and progression of retinopathy, nephropathy, and cardiovascular autonomic neuropathy.

The researchers found that adjusting for mean blood glucose, no measure of within-day variability was associated with any outcome. There was a significant association between the longitudinal mean M-value (over time) and microalbuminuria, when adjusted for the longitudinal mean blood glucose and corrected for multiple tests using the Holm procedure.

"Overall, within-day glycemic variability, as determined from quarterly glucose profiles, does not play an apparent role in the development of microvascular complications beyond the influence of the mean glucose," the authors write.

**More information:** Abstract/Full Text (subscription or payment may be required)