

# Acetaminophen falsely elevates CGM glucose values

August 19 2015

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

(HealthDay)—Acetaminophen falsely increases continuous glucose monitor (CGM) glucose values, according to an observation letter published online Aug. 12 in *Diabetes Care*.

David M. Maahs, M.D., Ph.D., from the University of Colorado in Aurora, and colleagues examined the magnitude of the effect of [acetaminophen](#) on CGM glucose, particularly in the outpatient setting with contemporary sensor technology. The authors examined the potential challenges to closed-loop systems by performing the acetaminophen challenge in 40 individuals with hemoglobin A1c  $7.3 \pm 0.8$  percent. Participants ingested 1,000 mg acetaminophen and obtained

[blood glucose](#) (BG) meter readings over eight hours after ingestion.

The researchers found that for eight hours after acetaminophen ingestion there were significant differences ( $P \leq 0.01$  for all), consistent with expected pharmacokinetics. The greatest mean difference was 61 mg/dL. There was considerable individual variation; over eight hours, 50 percent of relative differences were within 20 percent and an additional 26 percent were within 40 percent. Three subjects had a BG meter value of 180 mg/dL and a BG meter value that was lower by more than 100 mg/dL.

"These data have implications for use of CGM glucose as a replacement for meter glucose for diabetes decision making and for closed-loop systems using CGM [glucose](#) values for automated insulin delivery," the authors write.

Several authors disclosed financial ties to the pharmaceutical and medical device industries.

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

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Citation: Acetaminophen falsely elevates CGM glucose values (2015, August 19) retrieved 13 May 2023 from <https://medicalxpress.com/news/2015-08-acetaminophen-falsely-elevates-cgm-glucose.html>

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