

# Diet soda linked to increase in glucagon-like peptide 1 levels

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Drinking a diet soda before a glucose load is associated with increased glucagon-like peptide 1 secretion in individuals with type 1 diabetes and healthy controls, but not in those with type 2 diabetes, according to research published online March 12 in *Diabetes Care*.

(HealthDay) -- Drinking a diet soda before a glucose load is associated with increased glucagon-like peptide 1 (GLP-1) secretion in individuals with type 1 diabetes and healthy controls, but not in those with type 2 diabetes, according to research published online March 12 in *Diabetes Care*.

Rebecca J. Brown, M.D., M.H.S.C., of the National Institute of Diabetes and Digestive and Kidney Diseases in Bethesda, Md., and colleagues conducted a randomized, crossover study involving nine individuals with type 1 diabetes, 10 with type 2 diabetes, and 25 healthy controls, aged 12 to 25 years. Participants drank either a cola-flavored, caffeine-free [diet soda](#) or carbonated water, followed by a 75-gram glucose load. They

then underwent glucose, C-peptide, GLP-1, glucose-dependent insulintropic peptide, and peptide Tyr-Tyr measurements for 180 minutes.

Compared with carbonated water, the researchers found that, after ingestion of diet soda, the GLP-1 area under the curve was 34 percent higher in healthy subjects and 43 percent higher in individuals with [type 1 diabetes](#) ( $P = 0.029$  and  $0.020$ , respectively), but was unaffected in subjects with type 2 diabetes. None of the other gut hormone measures were significantly statistically different between the groups after ingestion of diet soda or carbonated water.

"It is unknown whether changes in endogenous GLP-1 secretion as observed in the current study have any clinically relevant consequences, such as increased satiety and slowed gastric emptying," the authors write.

**More information:** [Abstract](#)  
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