Study assesses glucose monitoring trends in tweens

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(HealthDay) -- During the transition to adolescence, children with type 1 diabetes monitor their blood glucose less frequently, resulting in significant increases in HbA1c levels, according to research published online April 3 in *Diabetes Care*.

To determine whether adherence and glycemic control change during the transition to adolescence, Joseph R. Rausch, Ph.D., of the Cincinnati Children's Hospital Medical Center, and colleagues conducted a two-year longitudinal study involving 225 children aged 9 to 11 years with type 1 diabetes.

The researchers found that, over the duration of this two-year study, blood glucose monitoring frequency (BGMF) significantly decreased, from 4.9 to 4.5 checks per day, which correlated with a significant increase in HbA1c, from 8.2 to 8.6 percent. The researchers calculated that just one less check of blood glucose per day resulted in an increase in HbA1c of 1.26 percent.

"The magnitude of the effect of declining treatment adherence (BGMF) on glycemic control in young adolescents may be even greater than declines observed among older adolescents. BGMF offers a powerful tool for targeted management of glycemic control for type 1 diabetes during the critical transition to adolescence," the authors write.

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