Rates and severity of type 2 diabetes among U.S. children rose during the COVID-19 pandemic, possibly due to weight gain during lockdowns, researchers say.

"While our study examined hospital admissions for type 2 diabetes in children at one center, the results may be a microcosm of what is happening at other children's hospitals across the country," said lead author Dr. Daniel Hsia, an associate professor in the clinical trials unit at Pennington Biomedical Research Center in Baton Rouge, La.

Stay-at-home orders increased risk factors for type 2 diabetes. They include less physical activity, more screen time and other sedentary behaviors, sleep disturbances, and increased consumption of processed foods, all of which contribute to weight gain, according to the researchers.

Even a slight weight gain over a short period can increase the risk of type 2 diabetes and heart disease.

To learn more about type 2 diabetes in kids during the pandemic, the researchers compared the number and severity of hospitalizations for type 2 diabetes at Our Lady of the Lake Children's Hospital in Baton Rouge, between March and December 2019 with the same period in 2020.

The hospitalization rate for new onset type 2 diabetes rose from 0.27% (eight cases out of 2,964 hospitalizations) in 2019, compared to 0.62% (17 out of 2,729) in 2020.

Kids hospitalized in 2020 had more severe diabetes with higher blood glucose, higher A1C (a marker of blood sugar over three months), and higher indicators of dehydration than those admitted in 2019, the study found.

It also showed that in 2020, more kids had serious conditions that typically require admission to the intensive care unit, such as diabetic ketoacidosis (eight children vs. three) and HHS or hyperosmolar hyperglycemic syndrome (two vs. zero). Both conditions can lead to diabetic coma.

Of 25 admissions in 2020, 23 were Black children and 19 were boys, according to findings presented at a virtual meeting of the American Diabetes Association.

Research presented at meetings is typically considered preliminary until published in a peer-reviewed journal.

"Unfortunately, COVID-19 disrupted our lives in more ways than we realize," Hsia said in a meeting news release. "Our study reinforces the importance of maintaining a healthy lifestyle for children even under such difficult circumstances."

More information: The American Academy of Pediatrics has more on diabetes in children.