

# School lunch and TV time linked with childhood obesity

August 12 2013

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The findings by the University of Michigan Frankel Cardiovascular Center will be published in the September issue of *Pediatrics*.

While some habits were the same for all overweight and [obese children](#), the study found some gender differences in the habits influencing body weight.

Data from 1,714 sixth grade students enrolled in Project Healthy Schools showed girls who drank two servings of milk each day were less likely to be obese, and boys who played on a sports team were also at a healthier weight.

"Additional work is needed to help us understand the beneficial impact of improving [school lunches](#) and decreasing [screen time](#)," says cardiologist and senior study author Elizabeth Jackson, M.D., M.P.H., assistant professor of internal medicine at the University of Michigan Medical School. "Presumably [playing video games](#), or watching TV replaces physical activity."

Students enrolled in sixth grade at 20 schools, from four communities in southeastern Michigan, were eligible for participation in this study. The median age was 11.

Obese boys and girls had poor cardiovascular profiles with lower HDL-cholesterol, higher triglycerides, higher blood pressure and higher heart rate recovery – indicating a lower level of fitness – compared to normal

weight kids.

"Cardiovascular disease doesn't just start in adulthood, and there may be factors that could help us identify during youth or adolescence who might be at increased risk for developing health problems later on," Jackson says.

Other studies have linked eating school lunch with obesity, but a major issue with such studies, Jackson says, is the influence of [socioeconomic status](#). Poor children eligible for free or reduced school lunch may already be overweight, considering the link between obesity and lower socioeconomic status.

"Although we were not able to examine the specific [nutritional content](#) of school lunches, previous research suggests school lunches include nutrient-poor and calorie-rich foods," Jackson says.

The University of Michigan study adds a new element in the fight to reduce childhood obesity by providing a real-world view of the gender differences in obesity risk factors.

Milk consumption seemed to protect girls from obesity, but made no difference for boys. A possible explanation would be a reduction in sugary drinks, which girls replaced with milk.

In the study, 61 percent of obese boys and 63 percent of obese girls reported watching television for two or more hours a day. The assumption is watching television mediates physical activity, but there were gender differences in how children spent their so-called "screen time."

When asked, obese girls were more likely than any other group to use a computer. Obese boys reported playing video games more often than

normal weight boys, although the association was not as strong as in other studies.

"We did not find a significant association between time spent playing video games and obesity among boys, which has been observed in other studies," says study lead author Morgen Govindan, an investigator with the Michigan Cardiovascular Research and Reporting Program at the U-M. "Although we saw a similar trend, the association was not as strong perhaps due to our smaller sample size."

She adds: "Exploring such gender-related differences in a larger group may help in refining the interventions to promote weight loss and prevent [obesity](#) among middle [school](#) children."

**More information:** "Gender differences in physiologic markers and health behaviors associated with childhood obesity," *Pediatrics*, Volume 132, Number 3, September 2013

Provided by University of Michigan Health System

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