

# Cardiovascular screenings uncover diabetes, high cholesterol in middle schoolers

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A pilot study of 45 middle school kids shows that more than a third of those screened had abnormal levels of blood sugar or high cholesterol. Two had blood sugar levels (HbA1c) in the diabetes range.

The study supports [routine screening](#) for diabetes and abnormal lipids, but most are not routinely screened, even though the American Academy of Pediatrics and other major medical organizations recommend it.

"We were shocked with the diabetes screening results," says Robert Siegel, MD, director of the Center for Better Health and Nutrition at Cincinnati Children's. "Most studies show that around 20 percent of kids will have abnormalities, so we weren't too surprised by the results of the lipid screening. Our message is to get screened, eat right, and get out and play."

Dr. Siegel and his colleagues at the Cincinnati Children's Heart Institute screened seventh and eighth grade students at Norwood Middle School in Ohio. Norwood is a city of nearly 20,000 people in southwestern Ohio. The children ranged from 12 to 14 years old. Seventy one percent were white, 16 percent black and 9 percent Hispanic.

Forty-two percent of those screened were either overweight or obese. Fifteen of 43 students (two declined to have their blood drawn) had a lipid screening or HbA1c out of the normal range. Two had a cholesterol level greater than 200 mg/dl.

Two students had HbA1C levels greater than 6.5, meaning that they had diabetes. Neither had yet experienced symptoms but were referred to a pediatric endocrinologist for evaluation.

"More research is needed to understand why or why not parents want their children screened and

whether they prefer it be done at a doctor's office or at school," says Dr. Siegel. "With our study, we demonstrate that if the middle school setting is used for cardiovascular [screening](#), if it is feasible to do so, and the yield is high."

The study is published online in the *Journal of Pediatrics*.

Provided by Cincinnati Children's Hospital Medical Center

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