

The arteries of many obese children and teenagers are as thick and stiff as those of 45-year-olds, a sign that such children could have severe cardiovascular disease at a much younger age than their parents unless their condition is reversed, researchers said Tuesday.

"It's possible that they will have heart disease in their 20s and 30s," said Dr. Geetha Raghuvver of the University of Missouri at Kansas City, who led the study presented at a New Orleans meeting of the American Heart Association.

"There's a saying that 'you're as old as your arteries,' meaning that the state of your arteries is more important than your actual age in the evolution of heart disease and stroke," she said. "We found that the state of the arteries of these children is more typical of a 45-year-old than of someone their own age."

Experts did not find the result surprising but did view it as "alarming."

"We're facing an epidemic of childhood obesity," said Dr. Michael Schloss, co-director of the lipid treatment program at the New York University School of Medicine, who was not involved in the study. "We are raising a generation of children that are going to have a significant increase in vascular disease as they get older."

A May study from the Centers for Disease Control and Prevention found that 16.3 percent of U.S. children and teenagers are obese .

Raghuvver runs a preventive cardiology clinic for children who have high cholesterol levels, obesity and a family history of cardiac deaths.

She and her colleagues used ultrasound imaging to measure the thickness of the inner walls of the carotid arteries in 70 children considered at risk.

The children all had abnormalities in one or more types of cholesterol.

and 40 of them had a body mass index, or BMI - a calculation of weight and height routinely used as a measure of obesity - in the 95th percentile.

Because the researchers did not have access to healthy children for comparison, they compared the measured values to readily available data for 45-year-olds, using an arbitrary cutoff value of the 25th percentile, Raghuvver said. They found that three-quarters of the children had artery thickness above this level.

The artery thickening was most advanced in patients who were the most obese and had the highest levels of a type of cholesterol known as triglycerides, so that combination "should be a red flag to the doctor that a child is at high risk of heart disease," she said. Their long-term prospects "are not good" unless they can reverse the condition.

The findings suggest the potential for "a major public health problem" down the road, said Dr.

Albert Bove of the Temple University School of Medicine, president-elect of the American College of Cardiology, who was not involved in the study. "If we begin to see people disabled in their 30s and 40s because of heart disease, we could lose a significant fraction of the work force. They will also require a large amount of health care, so costs will go up significantly."

But there is some hope.

"If we can identify the condition early and start modifying triglycerides, we can probably prevent progression and perhaps even promote regression," said Dr. John Kennedy, director of prevention cardiology at Marina del Rey Hospital, in the Los Angeles area.