

Children with fatter midsections at increased risk for cardiovascular disease

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Children with more fat around their midsections could be at a higher risk of developing cardiovascular disease later in life, researchers say.

"While general obesity certainly has its own set of risks for the heart, we now know that all fat is not created equally," says Dr. Reda Bassali, an associate professor of pediatrics in the Medical College of Georgia School of Medicine and co-author of a study published online in the *International Journal of Pediatric Obesity*.

Increased waist circumference has long been linked to cardiovascular risk in adults because visceral fat — found in and around organs in the abdominal cavity — is more metabolically active, which can dramatically increase the risk of cardiovascular disease and [type 2 diabetes](#).

The study suggests routine waist measurements in [obese children](#) could predict which ones had developed risk factors for cardiovascular disease, such as higher fasting insulin levels, a precursor for diabetes; lower levels of high density lipo-proteins, also known as the good cholesterol; and higher levels of triglycerides, the fatty particles found in the blood.

"What we are asking is whether the children with larger waists already showed signs that put them at higher risk," Dr. Bassali, also a pediatrician at the MCGHealth Children's Medical Center, says. "To find out whether children eventually developed cardiovascular disease, we'd have to follow them long term."

In a sample of 188 obese children, ages 7-11, those with the largest waist circumferences - above the 90th percentile for their age - were three times more likely to have high triglycerides and nearly four times more likely to have lower levels of HDL. They were also 3.7 times more likely to have high fasting insulin levels.

"What that means is that children with a waist circumference at or above the 90th percentile are at a greater risk of developing the warning signs of [cardiovascular disease](#)," Dr. Bassali says. "Our results indicate that routine clinical measurement of the waist may help clinicians identify which obese children are at a greater risk."

Unfortunately, he says, there is no way to change how [children](#), or adults for that matter, gain weight.

"There is a lot of discussion about the apple versus the pear body shape, with the pear being more desirable," Dr. Bassali says. "Unfortunately, we don't have a real explanation why some people gain weight in the center of their body and others gain it, for instance, in their thighs. It could be environmental. It could be genetic. It could be a combination of the two."

These results, however, could provide researchers and clinicians with another way to measure possible risk and possibly prevent future health complications.

"The gold standard, when it comes to intervention strategies, has always been whether a child fell into a certain range with their body mass index (calculated using height and weight)," he says. "These results suggest that [waist circumference](#) could provide an additional measurement of risk. The intervention strategies would be the same."

Source: Medical College of Georgia

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