Gut bugs might influence child's odds for obesity

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Heavy kids had higher levels of certain microbes, as did kids who ate little protein, study finds.

(HealthDay) -- Levels of certain gut bacteria and low protein intake may raise children's risk of being obese, new research suggests.

The study included 26 obese and 27 non-obese children aged 6 to 16 who completed a dietary and physical activity survey. Stool samples from the children were analyzed to assess the presence of different types of gut bacteria.

Overweight and obese children had different proportions of various gut bacteria than normal weight children. The ratio of *Bacteroides fragilis* to *Bacteroides vulgatus* was 3:1 in overweight and obese children, while this ratio was reversed in normal weight children, the investigators found.

Like the normal weight kids, children who ate more protein also had lower levels of *B. fragilis*. That suggests a possible connection between dietary protein and obesity, according to the researchers from the University of Hasselt and the University of Antwerp in Belgium.

The study, slated for presentation Wednesday at the European Congress on Obesity in Lyon, France, revealed no significant associations between gut bacteria and levels of physical activity.

"Our results suggest that low concentrations of *Bacteroides fragilis* group bacteria, together with a low protein intake during childhood, could lead to the development of obesity," Liene Bervoets, of the University of Hasselt, and colleagues explained in a news release from the European Congress on Obesity.

While the findings indicate an association between a certain composition of gut microflora and childhood obesity, the researchers did not prove that having the wrong gut microbes can cause obesity.

But the study authors noted that the findings suggest that manipulating the makeup of gut microbiota through diet, prebiotics or probiotics may help prevent obesity. Prebiotics and probiotics are ingredients in food that may stimulate the growth of helpful bacteria in the digestive tract.

Bervoets also suggested that existing guidelines on protein consumption may need to be revised.

Because this study was presented at a medical meeting, the data and conclusions should be viewed as preliminary until published in a peer-reviewed journal.

More information: The U.S. Department of Health and Human Services outlines how parents can keep their children at a healthy weight.