

Diet foods for children may lead to obesity

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Diet foods and drinks for children may inadvertently lead to overeating and obesity, says a new report from the University of Alberta.

A team of researchers contends that animals learn to connect the taste of food with the amount of caloric energy it provides, and children who consume low-calorie versions of foods that are normally high in calories may develop distorted connections between taste and calorie content, leading them to overeat as they grow up.

The research will be published today in the academic journal *Obesity*.

"Based on what we've learned, it is better for children to eat healthy, well-balanced diets with sufficient calories for their daily activities rather than low-calorie snacks or meals," said Dr. David Pierce, a University of Alberta sociologist and lead author of the paper.

The researchers conducted a series of elaborate experiments that proved substituting low-calorie versions of foods and drinks led to overeating in a sample of young rats, including ones that were lean and ones that were genetically obese. Although both lean and obese rats overate during their regular meals, the added calories have more serious health implications for obese animals.

Adolescent rats that were also fed diet foods did not display the same tendency to overeat. The researchers believe the older rats did not overeat because they, unlike the younger rats, relied on a variety of taste-related cues to correctly assess the energy value of their food.

"The use of diet food and drinks from an early age into adulthood may induce overeating and gradual weight gain through the taste conditioning process that we have described," Pierce said.

Pierce added that his team's "taste conditioning process" theory may explain "puzzling results" from other studies, such as a recent one from researchers at the University of Massachusetts, who found links between diet soda consumption (among children") and a higher risk of obesity, diabetes and heart disease, but further research is necessary with older animals using a variety of taste-related cues.

"One thing is clear at this point," Pierce said, "our research has shown that young animals can be made to overeat when low-calorie foods and drinks are given to them on a daily basis, and this subverts their bodies' energy-balance system.

"Parents and health professionals should be made aware of this and know that the old-fashioned ways to keep children fit and healthy—insuring they eat well-balanced meals and exercise regularly—are the best ways. Diet foods are probably not a good idea for growing youngsters."

Source: University of Alberta

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