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Decay of baby teeth may be linked to obesity, poor food choices, study suggests

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A preliminary study of young children undergoing treatment for cavities in their baby teeth found that nearly 28 percent had a body mass index (BMI) above the 85th percentile, indicating overweight or obesity.

That percentage is more than 5 percent higher than the estimated national average, adding more fuel to the growing concern that poor food choices, including those sugary drinks and fruit juices so popular and convenient, likely are contributing to both obesity and tooth decay in very young children.

The findings will be presented today (June 22) at the 2010 annual meeting of the Endocrine Society being held in San Diego, Calif. The study is one of 38 abstracts (out of 2,000 accepted) selected for inclusion in the society's Research Summaries Book, which is provided to the media for future reference.

Kathleen Bethin, MD, associate professor of pediatrics at the University at Buffalo and director of the pediatric endocrinology and diabetes fellowship program at Women and Children's Hospital of Buffalo, is first author.

Dental cavities are the most common chronic disease of childhood, according to Healthy People 2010 -- 5-10 percent of young children have early childhood cavities -- and childhood obesity has more than tripled in the past 30 years, reaching nearly 20 percent by 2008.

"We hypothesized that poor nutritional choices may link obesity and dental decay in young children, but there is very little published data associating these two health issues," says Bethin.

"The aim of our study was to obtain preliminary data on BMI, energy intake and metabolic profiles in young children with tooth decay."

The study involved 65 children ages 2-5 who were treated in the operating room at Women and Children's Hospital. All children required anesthesia due to the severity of their dental problems or other issues.

The children, who had been fasting for 8-12 hours, were weighed and measured for height. After the patients were anesthetized, researchers measured waist circumference and drew blood. Parents completed a food questionnaire while their children were in surgery.

The data showed that:

- Eighteen of the 65 children, approximately 28 percent, had a BMI above the 85th percentile, which Bethin noted might be higher if the children hadn't been fasting.
- Waist circumference compared to height was significantly higher in the overweight and obese children compared to the children of normal weight, measurements showed.
- Approximately 71 percent of the children had a calorie intake higher than the normal 1,200 per day for their age group.

"The main point of our findings is that poor nutrition may link obesity to tooth decay," says Bethin. "Thus the dental office, or 'dental home,' may be an ideal place to educate families about nutrition and the risks of

obesity and dental decay.

"Our results found no difference in total calories consumed by the overweight and healthy-weight kids," noted Bethin, "so the problem isn't overeating, per se, just making the wrong food choices."

Bethin and colleagues now are analyzing whether the overweight children eat more processed sugar, drink more juice and have other unhealthy eating habits compared to the healthy-weight children.

Provided by University at Buffalo

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