BUFFALO, NEW YORK—New evidence from pediatric dentists at the University at Buffalo has shown that, contrary to previous findings, most young children with decayed “baby” teeth are not underweight, and actually may be overweight or at risk of being overweight.

A study of children ages 2–5 who underwent aggressive dental treatment under general anesthesia in the operating room by UB’s pediatric dentists at the Women and Children’s Hospital of Buffalo found that at least a quarter of the patients were over the recommended weight for their age or close to it, unlike their peers who had good teeth. Results of the research were presented at the International Association of Dental Research meeting held March 9–12 in Orlando, Florida.

“Prior studies in the 1990s found that children with rampant tooth decay appeared to be underweight, and this was attributed to a failure to thrive,” said Hiran Perinpanayagam, D.D.S., Ph.D., an endodontist and assistant professor in UB’s School of Dental Medicine and senior author on the study.

“In contrast, a more recent study found that the children with tooth decay did not have reduced bodyweight. Given these conflicting results, we thought a more definitive study was needed.”

Sandra McDougal, D.D.S., pediatric dental resident was first author on the study.

The researchers analyzed all complete records of children 2–5 years old who were treated for early childhood cavities at the pediatric clinic in 2000 and between January and April 2005. The analysis included gender, age, height and bodyweight at the time of treatment. In young boys and girls, bodyweight is assessed using a measure called body-mass-index (BMI) for age, which takes into account childhood growth patterns.

A total of 407 records of children with cavities were reviewed—170 from 2000 and 237 from 2005—as well as records of 79 children seen in May 2005 who were cavity free.

Results showed that very few of the children with cavities were underweight: 8.2 percent and 7.2 percent in 2000 and 2005 respectively. In contrast, 16.5 percent were at risk of being overweight and 10.6 percent were overweight in 2000. In 2005, 10.5 percent of the children with cavities were nearly overweight and 15.6 percent were already overweight.

Although the average age-adjusted body mass index was higher in the children with cavities in 2005 than in the children with cavities in 2000, or those that were free of cavities, these differences were not significant, Perinpanayagam noted.

“Our study has confirmed that the children with dental decay are not underweight in comparison to their peers,” he said.

Furthermore, their BMI-for-age appears to be significantly higher than the 50th percentile.

“The significance of these findings is that there may be a connection between a poor diet that causes tooth decay and one that leads to childhood overweight and obesity. Our next step will be to see if those children that improve their diet to stop a recurrence of cavities also are able to maintain healthy bodyweight.”

Also contributing to the study, all from the Department of Pediatric and Community Dentistry, were Margaret A. Cerio, D.D.S., assistant professor, Joanne T. Tran, dental student, and Joseph E. Bernat, D.D.S., Ph.D., department chair and associate dean of the UB dental school.