

Helping Parents Understand the Risks of Childhood and Adolescent Obesity and the Suspected Link to Gum Disease



Diet High in Fats and Carbohydrates

Sedentary Lifestyle

Obesity

Insulin Resistance
(glucose builds up in the blood resulting in high blood glucose)

Gum Disease



Diabetes

Increased Risk for Life-Threatening Chronic Diseases/Conditions

Patient education is one of the best ways we can help you and your children stay healthy. It is important that parents understand the recent research related to obesity in children and adolescents. Although gum disease (periodontal disease) has long been thought of as a disease which affects only older people, recent research indicates that obesity in young people may increase their risk for developing periodontal disease. The research on the increased risk that overweight and obese youth have for serious chronic diseases, such as diabetes, heart disease, stroke, high blood pressure, and periodontal disease is compelling. According to the American Heart Association, once a child or adolescent is identified as obese, vigorous clinical efforts should be directed at treatment. In view of these findings, we have decided to be proactive in addressing obesity in our child and adolescent patients.

You have heard about the alarming obesity trends in youth populations. In the United States, about 16% of 6- to 19-year-olds are overweight and another 15% are considered at risk of becoming overweight. In just 3 decades, being overweight is 2 to 3 times more prevalent in our youth population (depending on age group). A number of reasons have been cited for this dramatic increase in obesity trends, including a significant drop in the level of physical activity and a simultaneous increase in the amount of “screen time” (computer and television) children and adolescents engage in. This sedentary lifestyle, in combination with high fat and carbohydrate dietary patterns in our youth, has significantly increased the incidence of obesity in this population. Research indicates that being overweight or obese in childhood and adolescence increases the risk for developing insulin resistance.

So why is developing insulin resistance in childhood and adolescence such a big deal?

Insulin is a hormone secreted by the pancreas that allows molecules of sugar (glucose) in blood to pass into cells where the glucose is either used for energy or stored for future use. Insulin resistance occurs when the normal amount of insulin secreted by the pancreas is not able to unlock the door to cells to allow glucose to enter cells. In an attempt to overcome this and maintain a normal level of blood sugar, the pancreas secretes more and more insulin. In some cases cells resist or refuse to respond even with the higher

levels of insulin. This causes glucose (sugar) to build up in the blood. Once a person becomes insulin resistant, they are at increased risk for type 2 diabetes. People with diabetes are at a 2 to 4 times greater risk for developing periodontal disease than non-diabetic patients. Insulin resistance may be the link between obesity and other inflammatory conditions, including periodontal disease. As a result, there is heightened concern for those people who are edging toward insulin resistance related to obesity. More information about the relationship of obesity, insulin resistance and periodontal disease may be accessed at the website of the American Academy of Periodontology, found at www.perio.org.

It's time to start identifying children who are overweight or obese and urging parents to become proactive in managing their children's weight.

Talking with parents about whether their child may be overweight can often be a sensitive subject, yet studies suggest that parents are looking for help in managing weight issues for their children and families. There is increasing support across a wide variety of healthcare settings for screening children and adolescents for being overweight, or those at risk for becoming overweight. Parents who suspect their child is overweight are urged to consult with their child's physician to evaluate the child's status according to recently revised, gender specific BMI-for-age charts. Parents can directly determine whether their child is overweight or at risk by accessing the Center for Disease Control and Prevention's BMI-for-age growth charts which are posted on the CDC's website at www.cdc.gov/growthcharts. This website contains important information and detailed steps for parents to plot their child's BMI-for-age. Identifying children and adolescents who are overweight is the first step in formulating a plan for weight reduction.

What if I discover that my child is overweight; now what?

Lifestyle modification and weight control in overweight children and adolescents reduce the risk of developing insulin resistance, type 2 diabetes, periodontal disease, and other chronic diseases and conditions which may be life-threatening in adulthood. It is also known that weight loss in obese children and adolescents improves insulin sensitivity.

Weight reduction in children and adolescents cannot be achieved without targeting lifestyle changes in whole families. This starts with addressing the eating and the physical activity attitudes and patterns of parents. Meal planning and the amount of sedentary activity are usually governed by pa-

rental decision. Therefore, parents are in a strategic position to make modifications in family lifestyle and environment that prevent weight gain or facilitate weight reduction.

Where does a parent start in modifying family lifestyle to support healthy weight in children and adolescents?

Stick to simple modifications at first. Here are a few suggestions:

- Choose a variety of fruits and vegetables that are readily accessible and pre-prepared for quick consumption. Example: Carrot sticks instead of potato chips.
- Decrease consumption of sweetened beverages, high fat foods and energy-dense foods that are low in nutrients. Beware of fast food.
- Be aware of "proportion distortion." Recognize that food portions in restaurants and other places have grown in size — sometimes enough to feed 2.
- Consider your child's energy balance. Matching appropriate energy intake to energy expenditure is key in controlling weight. Children who are sedentary require less daily caloric intake than children and adolescents who have increased physical activity and require more calories.
- Support and enable family physical activity. Example: Get the whole family to train for a local walk-run event.
- Support and enable reduced screen time (computer and television). Set time limits for TV, DVD/video, and computer use. Removing these electronics from children's bedrooms often helps.

Additional resources to assist parents who are proactive in addressing weight gain in their children may be found in many places. The list below includes just a fraction of these resources.

- National Heart, Lung, and Blood Institute: <http://www.nhlbi.nih.gov>
- National Institute of Diabetes and Digestive and Kidney Diseases: <http://win.niddk.nih.gov/>
- National Institute of Child Health and Human Development: <http://www.nichd.nih.gov>
- Steps to a Healthier U.S.: <http://www.smallstep.gov>
- HHS/USDA Dietary Guidelines for Americans 2005: <http://www.healthierus.gov/dietaryguidelines>
- Eat Smart, Play Hard™: <http://www.fns.usda.gov/eatsmart-playhard/>
- Centers for Disease Control and Prevention: <http://www.cdc.gov>
- Healthy People 2010: <http://www.healthypeople.gov>