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**CHILDREN'S ENVIRONMENTAL HEALTH CENTER OF THE HUDSON VALLEY
PROTECTING CHILDREN AGAINST ENVIRONMENTAL THREATS**

www.ChildrensEnvironment.org

April 10, 2013 - CHILDREN'S HEALTH ADVISORY

OBESITY and ASTHMA

April 10, 2013: Asthma and obesity are chronic diseases that significantly affect children in the United States. Evidence exists that there is a relationship between asthma and obesity, yet they do not know which causes which¹. A recent study done in Southern California has found that there was a higher prevalence of overweight, moderate, and extreme obesity in children and adolescents who suffered from asthma². Children who experience frequent asthma symptoms (wheezing, shortness of breath) are more likely to have a higher BMI and have a greater prevalence of obesity¹. Some say that children with asthma become obese because of their lack of physical activity due to asthma onset. Others say that children with obesity suffer from hormonal driven asthma¹. Additionally, a higher body mass index, or BMI, was found to be linked with higher use of inhaled and oral corticosteroids and visits to the emergency room².

Obesity

Obesity is a growing problem among children in the United States, with about 12.5 million children and adolescents between the ages of 2 and 19 years old being obese³. Childhood obesity is mainly caused by the consumption of unhealthy foods that are high in calories, sugar, salt, and fat, but low in essential nutrients. In conjunction, not engaging in enough physical activity and watching too much TV also result in obesity. Children have access to, and are surrounded by advertisements to sugary drinks and unhealthy snacks, especially in school, for various unhealthy food and large portions of these foods. Watching TV has taken up time that children could use to participate in physical activity and also creates an environment for snacking and seeing unhealthy food advertisements⁴.

Measuring a child's weight and height, then assigning their weight to an age- and sex-specific percentile helps determine a child's weight status. A BMI that is at or above the 95th percentile characterizes obesity, and a BMI between the 85th and 95th

percentile characterizes being overweight. Children who are overweight or obese are more likely to become obese adults, with higher chances for heart disease, diabetes, and some cancers. Short-term consequences of childhood obesity include high blood pressure, high cholesterol, type 2 diabetes, joint problems, liver disease, social and psychological problems, and breathing problems, including asthma⁵.

Asthma

Asthma is an illness affecting the lungs, and is one of the most common chronic illnesses among children. What is known as an asthma attack involves symptoms of coughing, wheezing, chest tightness, and difficulty breathing that occur when the body's airways become constricted, reducing the amount of air that goes in and out of the lungs. Triggers for asthma attacks can vary from person to person, but the most common triggers are tobacco smoke, dust mites, outdoor air pollution, cockroach allergens, furry pets, mold, and smoke from burning wood or grass. Additionally, asthma attacks can also occur on account of the flu and other respiratory illnesses, allergies, physical exercise, medicine, food, and fragrances⁶.

The exact cause of asthma is unknown, but the chances of having asthma are higher when it is present in family members. According to the CDC, in 2010, one (1) in 11 children had asthma and in 2008, there were 10.5 million days of school missed due to asthma. Risk factors for having asthma include gender, age, race/ethnicity, education level and income level. In children, boys are more likely to have asthma than girls and black children are 2 times more likely to have asthma than white children⁷.

Prevention

Preventing childhood obesity include:

- Having children engage in at least **60 minutes of moderate- and vigorous-intensity physical activity** per day
- Encouraging more **healthy food** choices such as low-fat or non-fat milk and dairy products, vegetables, fruits, lean meats, drinking more water and limiting sugar-sweetened drinks.
- **Balancing calories** by replacing high-fat and high-sugar or salty snacks with low-fat and low-sugar treats that are about **100 calories or less**.
- **Reducing sedentary time** that is used watching TV, playing video games, or surfing the internet to **no more than 2 hours a day**.

Managing asthma and preventing asthma attacks include:

- Taking **medications** that can be inhaled or taken as a pill, and should be **taken exactly as directed** by the doctor.
- Learn how to **recognize** asthma symptoms and avoid **known** triggers for attacks.

- **Minimize exposure to sources of smoke**, including cigarettes and smoky areas.

For more information:

<http://apps.nccd.cdc.gov/dnpabmi/>

<http://www.cdc.gov/healthyyouth/asthma/>

<http://www.health.gov/paguidelines/guidelines/chapter3.aspx>

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