

BMI and Pediatric Obesity

About one third of American children are obese. Parents and professionals alike tend to under-identify pediatric obesity; that is, people tend to not recognize when a child is overweight or obese just by looking. The BMI (body mass index, defined as weight in kilograms divided by height in meters squared) allows us to better identify children who are affected. BMI is easily measured and is compared to norms called “percentiles”. Many parents are familiar with percentiles from tracking their child’s growth at well pediatric visits. For example, a child with a BMI at the 75th percentile has a higher BMI than 75% of same-sex children of the same age.

Children and teens are defined as obese if their BMI is above the 95th percentile for age, and overweight if their BMI is between the 85th and 95th percentile for age. While extremely fit individuals with increased muscle mass may have a high BMI, this situation is uncommon in children.

Protective factors for obesity include breastfeeding, being part of a family with an active lifestyle, minimal television usage, and having non-obese parents.

Obese children are very likely to become obese adults:

- 25% chance if obese as preschooler
- 41% chance if obese at age 7
- 75% chance if obese at age 12
- 90% chance if obese in adolescence

Risk factors include genes (the dramatic increase in obesity rates cannot be caused by genes which do not cause rapid changes in populations), fewer family meals, more eating fast food on the run, prepackaged foods with high saturated fat and high-fructose corn syrup, lower intake of fruits and vegetables, sedentary lifestyle with more TV and video game use, and decreased school physical activity requirements. The media also contributes to obesity with advertisements to children that significantly affect their food choices.

The medical complications of pediatric obesity are numerous:

- Social stigma, depression
- High blood pressure is three times more likely in obesity
Reducing BMI by 10% reduces blood pressure by 10 points
- Diabetes is three times more likely in obesity
- Heart disease
- High cholesterol
Reducing BMI by 10% improves cholesterol by as much as 25%
- Sleep apnea
- Increased severity of asthma
- Joint stress
- Increased brain pressure (pseudotumor cerebri)
- Liver disease
- Gastroesophageal reflux (stomach contents rise into the esophagus or swallowing tube)

Interventions for obesity do not work unless the child and family are ready for change. Making small changes at a time works best, and communities must work together for the benefit of all members.

The “5 to GO!” Message from the Cleveland Clinic is an example of a simple way to think about changes:

0-10 years of age

- 5: eat FIVE fruits and veggies every day
- 4: Give and get FOUR compliments every day
- 3: Consume THREE dairy a day
- 2: No more than TWO media hours per day
- 1: At least ONE hour of exercise a day
- 0: No sugar-sweetened drinks, ever
- GO: and be well, inside and out

11+ years

- 5: eat FIVE fruits and veggies every day
- 4: consume FOUR dairy a day
- 3: Give and get THREE compliments every day
- 2: No more than TWO media hours per day
- 1: At least ONE hour of exercise a day
- 0: No sugar –sweetened drinks, ever
- GO: and be well, inside and out

Other HPA resources for you:

Positive Eating Habits

But My Kid Won't Eat Vegetables!

Feeding Guide for Children

Sample Menus for Two and Four Year Olds

Weight Management for Children

Community Resources for you:

Weigh to Go program at HMC's Center for Nutrition 237-6920

Shapedown program at HMC's Center for Nutrition 237-6920

Weight Watchers

www.Myplate.gov