



# EITI Newsletter

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## CHILDHOOD OBESITY: Keeping generation Z from becoming XXL

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The topic of pediatric obesity has dominated the conversations of nutritionists for years and with good reason; it is the number one pediatric health problem, and children with developmental disabilities are not exempt. At the same time, childhood obesity is not a problem that is easily treated or addressed in many cases. Solutions seem to evade health professionals and parents for a variety of reasons which deserve attention here.

### The extent of the problem

Obesity in both children and adults is measured by the body mass index (BMI), calculated the same for both, but interpreted differently. Whereas in adults a BMI  $\geq 30$  is considered obese, in children BMI percentiles are used because children are growing and their bodies have different proportions at different ages. The BMI is not a perfect measure, but it's easy to measure and reasonably accurate.

Children are generally considered overweight if their BMI is at or above the 85th percentile for age, and obese, if their BMI percentile is at or above the 95th percentile.

According to statistics from the Centers for Disease Control (CDC), obesity has been on the rise for decades. In the period from 1970-2008, childhood obesity increased from 5.0% to 10.4% among preschool children aged two to five years and the overall prevalence of child obesity doubled over the past four decades. There are also ethnic differences, with 14.7% of Hispanic children found to have height/weight percentiles above the 95th percentile and thus considered obese.

### Why we should be concerned

Discussing the subject of obesity with parents and caregivers is a delicate matter. It's a subject of high concern but also of high emotion, and when these two factors exist together, clinicians need to tread very carefully. The concern must never be about appearance, only health. Some parents may need education about what a healthy weight really is.

Obesity at any age is considered a "gateway disease," and the earlier the onset, the greater the

likelihood of the child remaining obese, therefore, the greater the danger. Obesity increases the risk for developing other conditions, including, but not limited to: hypertension, type 2 diabetes, heart disease, and joint/mobility problems. Type 2 Diabetes is seldom seen in early childhood, but early onset obesity lays the groundwork for its emergence later in childhood, so appropriate body weight is important even for young children.

### Special concerns for obese children with special needs

When an infant has a developmental delay, obesity becomes a greater concern. A study that followed infants from age three to eighteen months found that motor delays were 1.8 times more likely in obese infants and 2.3 times more likely in infants with higher stores of subcutaneous fat (Slining, et al). Higher levels of subcutaneous fat were also associated with lower psychomotor development index scores.

A large study of over 15,000 children followed children from birth to five years of age. This study found that 47% of normally-developing children who were obese at age three, were also likely to be obese at age five years, whereas 58% of children with developmental delays who were obese at age three, were likely to be obese at age five. (Emerson).

### What causes obesity in children, including children with special needs?

Obesity is difficult to resolve because its etiology is diverse and multi-factorial. We often read about a single issue as causing childhood obesity, such as: too much soda, junk food, too many bottles, processed food, too much TV time, or a lack of physical activity. In reality, it's far more complicated, which is probably why a successful treatment modality has eluded practitioners. Likely etiologies might be sorted into four areas: **social, environmental, familial, and cultural**.

**Social and environmental factors** to consider include the sedentary lifestyles of today's children. Lack of daily age-and-developmentally-appropriate physical activity is part of it, but so is the increased sedentary leisure activity for children of all ages. Simple play is less common, as children's activities, even at young ages, become increasingly screen-oriented and therefore sedentary. Children with mobility issues, such as those with cerebral

palsy or even those with clubbed feet, expend less energy because of their physical limitations. Additionally, inner-city parents often have safety concerns when it comes to taking children to the park or playground. In addition, with more households headed by a single parent or two employed parents, there is less opportunity for adult supervision of children's outdoor activities.

One study of activity in Children with Special Health Care Needs (CSHCN) looked at barriers to being physically active for at least three hours per week and found that parents reported four chief issues (Yasdani 2013):

- Low level of interest by the child
- Lack of programs appropriate for the child
- The child's behavior problems (making group play challenging)
- Parent scheduling difficulties

Ironically, only the child's lack of interest was independently associated with a lack of physical activity. Children, however, were over four times as likely to be active, when parents themselves were active.

Family life also influences food intake and obesity in a number of ways. Parents have time pressures which can result in fewer meals prepared and eaten at home. Familiarizing children with food prepared away from home can result in frequent exposure to foods high in fat, salt, and sugar (of which most children are fond), easily creating a home eating environment where high-calorie meals are the norm. Additionally, when parents only have time to shop weekly or even bi-weekly, they are less likely to purchase fresh fruit or vegetables, favoring instead, snacks which have a longer shelf life and which require less preparation (washing, slicing, peeling, etc.).

**Familial and cultural values** cannot be ignored when assessing the cause or treatment of obesity. Some cultures value extra weight on children, especially young children. Parents from such cultural environments may not see their children as obese; on the contrary, they often consider overweight a sign of a well-nourished child and evidence of proper parenting. This may be a function of coming from an environment where food was scarce and extra weight was seen as protection against starvation.

Fatalistic values can affect both how obesity is viewed and whether it deserves intervention. Parents who tend to be fatalists may feel that attempts at intervention are useless because their child's weight is pre-determined and nothing can be done to change it. Similarly, some parents of young children feel that obesity at a young age is a temporary, but natural occurrence that the child will outgrow on his/her own.

Still, some parents have cultural values which

frown on saying "no" to a child's food preferences. Their philosophy is, "You don't deny food to a child," and this may have evolved if the family came from an environment where food was in limited supply, or from other cultural values. Many parents indicate they would prefer their child to eat a healthier diet, as opposed to fast food or take-out, "But that's what he wants, so I have to give it to him." Other parents just become fatigued dealing with the food tantrums of their children and give in to the child's demands to keep the peace in the household.

### **Interventions that work**

Despite the above challenges, there are some signs that things are changing, at least in efforts directed at older children. Today's America is beginning to see obesity for the health hazard it is. There are new federal school nutrition requirements that put a greater emphasis on serving fruits and vegetables in our schools. After years of reducing the presence of physical education classes in schools, districts are now seeing them as vital to the health and well-being of students and returning physical education classes to their curriculums.

This awakening, however, has not often trickled down to pre-school children, perhaps because the infant-toddler years are a time of critical nutritional needs and restrictions are seen as hazardous. Precisely because these are critical years, it is important to feed children properly and to expose them to as wide a variety of healthful foods as possible.

A thought shift among health professionals has also occurred. No longer do we think of obesity interventions as involving only dietary changes, now, it's about changing entire lifestyles.

### **Asking the Right Questions**

Changing a child's lifestyle usually means engaging the family, but we can't know where to start until we know where the family really is. Simple screening questions can give some insight into how the child eats and how the family lives, and responses can help better target appropriate recommendations and interventions. Among these screening questions are:

- Does the child **eat breakfast** every day? At least 40% of children are not regular breakfast eaters and there is considerable research associating daily breakfast consumption with lower BMIs, as well as, better academic scores.
- How often does the **family eat meals together**? Family meals tend to be healthier and lower in fat, calories and added sugar, even when they utilize some packaged or convenience foods. Family meals are also a great way for parents to do some positive role modeling for their children.
- How often does the child **eat fruits and vegetables**? The more fruits and vegetables

kids eat, the less likely they are to be overweight or to have poor diets. Interestingly, most children have several favorite fruits and vegetables, although these may not be offered in their daily meals or for snacks. Fruits and vegetables are important for all children over the age of 6 months.

- What are kids **drinking**? Sugary sodas, sweetened teas and fruit-flavored drinks are a huge source of wasted, empty calories and are not necessary for children of any age. Even 100% juice has limited benefits and should be limited in the diet.
- How **active** are kids and **how much “screen time”** do they get? Children may be busy, but that is no indication of physical activity. It’s astounding that children are younger and younger when they’re introduced to screen-type toys. Electronic toys tend to keep infants and children occupied, but kids need more time for unstructured play – at least 60 minutes each day, according to the American Academy of Pediatrics (AAP). This means a reduction of sedentary activities, and the AAP recommends a maximum of 2 hours of “screen time” each day.
- Is there a TV or other **screen in the child’s bedroom**? This can keep kids immobile and also interfere with sleep time.
- What is the **sleep routine**? Kids need a minimum of eight hours every day and younger children need more. That means winding down – including shutting down the screens and activities – an hour or so before bedtime, to help them get the hours of sleep they need.
- Is food used as a **restriction or reward**? It’s never a good practice to bribe or force children to eat. Withholding food as a punishment is equally negative. There should be structured guidelines and children should be presented with a balanced and nutritious diet within their calorie needs. After that, it’s the child’s decision whether to eat or not eat. There are exceptions, such as with the extreme food refusal issues in children with Autistic Spectrum Disorders.
- What is the **parent’s diet and activity level** like? You will probably not see a child eating a better diet than the parent, so doing some intervention on the parent’s diet is likely to have a positive outcome for the child as well. It’s also why it’s necessary to take a gradual approach rather than making too many dietary and lifestyle changes at once. Small changes, made consistently, are often more permanent than big changes made too suddenly.

The issues of persistence and patience are absolutely critical to successful weight management and prevention of excessive weight gain in children. Successful weight management cannot be seen as a temporary intervention or “diet” that will start and

end. We need to think of establishing a “new normal” for children. Going slowly, but persistently, is ideal for two reasons. First, in order to change behavior permanently, change it gradually. Since everyone must eat, decisions about food are ever-present. Second, managing children’s weights requires the cooperation of the entire family. Parents are critical role models here, and it is just as important to change their diets and lifestyles, as it is their children’s. Taking small steps forward will be easier for parents and families. Small changes are easier to achieve and achieving small successes more often, is psychologically very reinforcing and motivating.

Finally, a good amount of research has dealt with the issue of “behavioral economics” to change eating behavior. Brian Wansink of Cornell University, has pioneered this phenomenon and has boiled it down to what he calls the “**C.A.N.**” approach (Wansink 2013):

- **C**onvenient: Make it more convenient to make healthier choices than less healthy ones.
- **A**tttractive: We eat with our eyes and ears and noses, as well as, our mouths. Good food has to be appealing. Little ones may need to hold and feel a food as well, and even smell it. This familiarizes them with a new food and increases the food’s attractiveness to them.
- **N**ormative: Making good choices has to appear to be “what we do” everyday. Healthy eating has to be conveyed as a daily routine.

None of these ideas for dietary and lifestyle change are difficult to undertake individually. Introducing them all at once however, would be daunting for many parents. As a nutrition specialist, I get involved when children and parents express interest and motivation to make any sort of healthy change. It is important to make sure they leave the office re-energized, with a better understanding of their progress and with motivation to take another step with their children towards better health.

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