



## 4-C Child and Adult Care Food Program

# CHILDHOOD OBESITY PREVENTION

## NUTRITION EDUCATION HOME ASSIGNMENT

Obesity is a touchy subject. Many adults have personal issues related to body weight that they project onto children. Adults worry about children's self esteem, their health, and their appearance. There can be a prejudice against overweight individuals with assumptions made about overeating, laziness, or lack of concern about appearance. Overweight people often deal with stares and inappropriate or cruel comments regularly. Children can be mean to other children and tease them about their weight.

It is important to try to set aside our personal issues and feelings about weight and obesity and learn the facts about the topic and how we can be helpful to children in maintaining a healthy weight and active life style.

### THE REALITY: STATISTICS

- Obesity in the United States is truly epidemic. In the last 10 years, obesity rates have increased by more than 60% among adults. Approximately 45 million adults, or 25% of the adult population is obese.
- In 1999, 13% of children aged 6 to 11 years and 14% of adolescents aged 12 to 19 years in the United States were overweight. Since 1980, obesity rates have doubled among children and tripled among adolescents.
- Approximately 30% of 6-19 year-olds are overweight or at risk of becoming overweight.
- Overweight adolescents have a 70% chance of becoming overweight or obese adults. This increases to 80% if one or more parent is overweight or obese.
- The most immediate consequence of overweight as perceived by the children themselves is social discrimination. This is associated with poor self-esteem and depression.



## HOW IS BEING OVERWEIGHT ASSOCIATED WITH HEALTH PROBLEMS IN CHILDREN?

- Type 2 diabetes
- Asthma
- High blood pressure
- High cholesterol
- Joint problems
- Sleep disorders

Type 2 diabetes, previously considered an adult disease, has increased dramatically in children. Overweight and obesity are closely linked to Type 2 diabetes. Risk factors for heart disease occur with increased frequency in overweight children and adolescents compared to those with a healthy weight.

## WHAT IS OVERWEIGHT?

Let us begin by defining what is medically considered overweight and obese. An individual who is 20% above “normal” body weight is considered overweight. An individual who is 30% or more above “normal” body weight is considered obese. “Normal” body weight is determined by using height and weight charts, which usually have a range for “normal” weight. For example, a 5’1” woman should weigh between 100-130 pounds, depending on body build. She would be considered overweight if she weighed between 120-156 pounds. She would be considered obese if she weighed over 130-169 pounds. The range takes into account body type and bone weight/size.

Another way to measure weight/height ratios is to consider a person’s Body Mass Index (BMI). Currently this is the favored measurement for health risks related to weight. You can figure your BMI by taking your weight in pounds, multiplying by 703, and dividing by your height in inches squared.

*For example:*

135 lb. X 703 = 94,905

5 feet 1 inch = 61 inches

61 inches squared = 3,721

94,905 divided by 3,721 = 25.5 BMI

A BMI lower than 25 is considered healthy and a low risk for diabetes and other illnesses based on weight. A BMI between 25 and 29 is considered overweight and you have an increased risk for arthritis, diabetes, hypertension, and some cancers. A BMI above 30 is considered obese and your health risks increase even more. IN CHILDREN AND ADOLESCENTS AGED 6 to 19 YEARS, OVERWEIGHT HAS BEEN DEFINED AS A SEX- AND AGE SPECIFIC BMI AT OR ABOVE THE 95<sup>TH</sup> PERCENTILE, BASED ON REVISED CENTERS FOR DISEASE CONTROL AND PREVENTION GROWTH CHARTS ([www.cdc.gov/growthcharts](http://www.cdc.gov/growthcharts)).

The BMI measurement should **not** be used as the only measurement of overweight or body fat in children. Other factors must be considered by a health professional before any diagnosis or diet plan would be considered. An actual diagnosis of overweight or obesity should be made only by a health professional.

Determining if a child is overweight can not be done by looking at them or simply by weighing them on a scale. Genetics plays a role in determining body build and even the tendency towards obesity. Some children are more round than others. Some children are more “soft” with less lean muscle. It is important to accept a variety of body types in children and to promote health and wellness in all children.

Childhood obesity has doubled in the last twenty years. One in five children are overweight or obese.

## WHAT ARE THE CAUSES OF OBESITY?

What is happening? What are the causes of obesity in children, and in our society as a whole? The USDA has a study called the "Continuing Survey of Food Intake by Individuals." This study has shown that POOR FOOD CHOICES HAVE BECOME MORE FREQUENT. Here are some of the findings from the most recent statistics, which are from 1994-96:

- Only 26% of children, ages 2-19 ate the recommended five servings of fruits and vegetables daily. Of those children, one-third of the vegetables eaten were eaten as French fries or potato chips (which are technically not a vegetable, but a high fat snack).
- 98% of Americans snack at least two times a week and as often as two times a day. Of those snacks, only 10% are fruits or vegetables. On average, each month Americans eat only one vegetable snack and 5 fruit or juice snacks.
- Americans are ten times more likely to drink a pop than a 100% juice. Teenagers drink twice as much soda as milk.
- Only 2% of children meet the Food Guide Pyramid recommendations.
- 45% of children eat less than 1 fruit a day.
- 20% of children eat less than 1 vegetable a day.
- 50% of children eat less than the recommended six servings of grain/bread a day.



Besides poor food choices, the typical American diet includes much larger serving sizes than what is recommended or for that matter, what was typical not so many years ago. Because we have super-sized our food, we have lost track of what a serving actually is. A "typical" serving of baked/French fries is now about 2 ½ times the standard serving, which is ½ cup. A usual portion of pasta served these days is four times the standard serving size of 1 cup. The "typical" serving of beef or chicken is 1 ½ times the standard serving of 3 ounces. (How many ounces was the last steak you ordered while dining out?)

Think about the super-sized fast food industry. For a few pennies more, you can have twice as much food and drink. When given a larger serving size, Americans tend to still eat all of it. 67% of Americans usually eat everything or almost everything on their plates.

In one interesting study, preschoolers ate an average of 25% more macaroni and cheese, when the lunchtime serving size was doubled. They ate the same amounts of everything else (did not adjust down), so the calorie intake went up 15% when the entrees were super-sized. It is important to note that not all children did this. Some children ate 60-80% more of the entrée after it was super-sized. Others ate the same amounts as before. A correlation was made between the children who overate at lunch and eating the most during snacks also, even though they stated they were not hungry. Another observation was that the children who ate the most, did not do so by eating faster, but by taking larger bites.

What conclusions can be drawn from the study?

1. Those children who were most suggestible to external eating cues (super sized servings) also showed a diminished ability to recognize or respond to internal hunger and satiety cues (they ate even though they said they were not hungry.)

2. When the study was altered to allow children to serve themselves, larger portions did not seem to have the same effect. Even though more food was available, children took only what they typically were served, in other words the standard serving size.
3. It would appear that the adults serving the food had great influence on how much some children ate.

Another factor related to obesity is that most Americans are less active than they used to be. This is due to several changes in our society – less physical labor and jobs are required, more convenient environments are available, more driving and longer commute times are common, we have more sit-down time (movies, TV, computers, and video games) and less free time that is unscheduled.

Preschool and school age children are also less physically active than their predecessors. The average activity level of children is 20% lower than what is recommended by pediatric experts. Those children who are less active often gain weight as fat more than as muscle. One half of all adolescents do not exercise “vigorously” and one fourth are not active at all, as self-reported.

Although there are many other things that influence weight in children, such as food availability, mealtime environment, or parent/child relationships; the three factors that are related to childhood obesity the most are poor food choices, over-sized servings and lack of physical activity. These three factors are areas in which day care providers have great influence and some control.

## WHAT ARE WAYS TO HELP PREVENT OBESITY IN CHILDREN?

*Preventing childhood obesity has several components – good food choices and increased physical activity are the most important.* In other words, EAT WELL – PLAY HARD!



Let’s look at physical activity first. Children need to have moderate physical activity, most days if not every day. Moderate physical activity is defined as having a slow start, followed by activity levels increasing until the child is slightly short of breath, but able to converse. It should be fun and combine aerobic and strength training.

Remember – moderate physical activity is the best way to improve body fitness and health in children. Physical activity increases lean muscle mass, increases endurance, increases strength, and increases bone mass. It also decreases total body fat and blood pressure, and improves blood lipids. Developing physical skills builds self-confidence and promotes life-long activity patterns in children.

Physical activity can be started with infants. Infants should interact with parents or caregivers in daily physical activities that help the child explore the environment. There should be safe settings that facilitate physical activity and do not restrict movement for prolonged periods of time. Activities should promote the development of movement skills. Infants should be encouraged to use large muscles both in movement and interactive games.



Toddlers should have at least 30 minutes of structured physical activity a day. Preschoolers should have at least 60 minutes of structured physical activity daily. In addition, toddlers and preschoolers should have at least 60 minutes and up to several hours per day of unstructured physical activity. They should not be sedentary for more than 60 minutes at a time, unless they are sleeping.

## TWO THINGS WE CAN DO TO HELP CHILDREN

Making healthier food choices is as important as exercise in maintaining healthy bodies in children. Two of the easiest ways to improve children's diets are to switch to 1% or skim milk for children two years of age and older and to serve 5 servings of fruits and vegetables a day.

Serving 1% or skim milk reduces the calories from fat in the diet without decreasing the other nutrients available from milk, especially calcium, protein, and Vitamin D. There is less cholesterol and saturated fat in low fat milk.



Serving 5 servings of fruits and vegetables a day also decreases the overall fat calories in the diet. Fruits and vegetables are great sources of vitamins and minerals, especially Vitamins C and A, which tend to be low in the diets of young children. They are also high in fiber, which helps keep kids' digestive tracts regular. Serving fruits and vegetables increases the variety in flavor, color, and texture of the diet. Serving more fruits and vegetables may decrease the risk of cancer.

## WHAT ABOUT DIETING?

Most children can maintain growth and a healthy weight with a varied diet emphasizing good food choices and daily physical activity. For children that are extremely overweight or obese (as diagnosed by a medical doctor), the goal should be to lose body fat, not weight. It is possible for a child to eat moderately, exercise well, and lose body fat while gaining lean muscle mass. This wouldn't necessarily mean a loss of pounds. Weight loss is not desirable for a rapidly growing child. As a child grows their weight should be increasing, so if they are losing pounds, it indicates an extremely big calorie deficit, putting their nutritional needs at risk.

Some goals with obese children as with "normal" weight children are:

1. Prevent overeating. Do not promote under-eating (dieting).
2. Maintain a sufficient level of exercise.
3. Avoid reducing metabolic rate. (Restricted activity or dieting.)
4. Do not let the child feel deprived or isolated or treated differently.
5. Use positive tactics that can be permanent.
  - a. Teach slow, attentive and focused eating.
  - b. Pause between bites, converse.
  - c. Chew food thoroughly.
  - d. Serve food at regular meal times.
  - e. Reduce frequency of high calorie foods over time.
  - f. Drink water.



## EMOTIONAL CONCERNS RELATED TO EATING

Obesity can not be discussed without addressing the social and emotional factors associated with it. Adults, and children often use food alike to cope with stress or resolve conflict. Family problems can be reflected in eating problems with children. Families that are rigid, have poor communication skills, or unresolved conflict can also have inappropriate control or concern about children's eating behaviors. Children can respond to this stress in many ways, ranging from being depressed and lethargic to over active and even delinquent.

Depression is the most common emotional effect of obesity in kids. Several studies indicate that prejudice against obese people starts as early as 3 to 5 years old. This means before obese kids reach kindergarten they're often called names, have difficulty making friends, are excluded from activities and are picked last for teams. Such an environment of rejection typically adds to weight gain because it discourages active involvement in athletics and encourages alone-time activities, such as watching television, playing video games or using the Internet.

To help reverse this cycle, it's key to help kids make changes that will be both beneficial and sustainable. Sometimes those changes involve changing what they eat, how much they eat, or who they eat with. Other times those changes have nothing to do with food. Kids are strongly affected by their environment, so it may be important to concentrate on how they spend their time – encourage more activity and less passive time in front of the TV or computer.

If food becomes a way of coping for a child, it is often the case that eating has been an issue within the whole family. Some parents or caregivers try to have extreme control over children and their food choices or meal behaviors. Examples of this may be having a clean plate rule, dieting concerns for the parents themselves, absolute rules about no messes at the table, or overly strict rules about what are good foods and bad foods. On the other hand, some families have a lack of control or involvement. Examples of this could be a family always on the go with no sit down meals made or served, all poor food choices available on demand, a lack of food in the house, or regular mealtime arguing and disputes between parents.

Power struggles between children and parents or caregivers can be over anything, including food. It is important for children to be treated with respect and given the opportunity to listen to their own inner cues about hunger and satisfaction. The more children are encouraged to eat in response to hunger, rather than emotional or social cues, the more successful they can be at maintaining a healthy weight throughout their childhood.

It is important for day care providers to present healthy food choices, in appropriate serving sizes, in a neutral manner that encourages children to taste and eat the food offered, but does not reward or punish children for their decision to eat or not eat foods.

*Excerpts from Child of Mine by Ellyn Satter*

*...despite the dismal reality of dieting failure, parents regularly persuaded, by their own concern and by advice from others, to attempt to withhold food from their supposedly too-fat children. This often causes a struggle over food intake, with suffering and distortions on both sides.*

*Parents are deprived of a harmonious relationship with a contented child. The child is deprived of the security of knowing he will get enough to eat. Because he may be forced to go hungry, the child becomes preoccupied with food, prone to overeat when he gets the chance, and limited in the attention and energy he devotes to other pursuits. Dieting is generally sporadic. The pain of dieting is tolerable only for so long, and diets are abandoned, to be started another day when motivation is higher or obesity appears to be a greater threat.*

*It is vital that our attempts at prevention do no harm. Our tactics must be moderate, positive and permanent and our goals realistic. The essential task is to set things up for the child so his natural ability to regulate his food intake is distorted as little as possible by outside influences.*

# CHILDHOOD OBESITY PREVENTION CONTINUING EDUCATION QUESTIONS

PROVIDER NAME	
PROVIDER NUMBER	
DATE COMPLETED	

Define the terms “**overweight**” and “**obesity**”.

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What is the **first** cause of obesity that is discussed?

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List some **unhealthy eating patterns** as discussed.

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What is the **second** cause of obesity that is discussed?

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What is the **third** cause of obesity that is discussed?

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What is the recommended **activity level** for toddlers and preschoolers?

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What two suggestions in **food choices** are made to help improve children's diets?

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Should children be put on **diets** to lose weight? Why or why not?

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What ideas for "Making Better Food Choices" with **meat/meat alternates** would you be willing to try?

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What ideas for "Making Better Food Choices" with **fruits and vegetables** would you be willing to try?

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What ideas for "Making Better Food Choices" with **grains** would you be willing to try?

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Study the **servicing sizes** for the Child and Adult Care Food Program. Consider each component and decide whether you usually serve larger servings than you need to. As an experiment, serve only the required amount for each component at breakfast or lunch (you can offer more after the kids eat it). How did it go?

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Choose a **healthy snack recipe** and a **physical activity** to try in your day care. Share your results.

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Additional Comments:

CONGRATULATIONS - YOU ARE DONE!

MAKE A COPY FOR YOURSELF & SEND ORIGINAL PAGES 7-9 TO:

4-C CACFP

5 ODANA COURT

MADISON, WI 53719

Or you can email a scanned copy to [foodprog@4-C.org](mailto:foodprog@4-C.org) or fax a copy to 608.271.5380.

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