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## **A Weighty Problem In American Children: The Overweight Epidemic**

Three hundred thousand deaths occur each year in the United States from a problem that is weighing down America (Statistics). This problem of massive proportions is not caused by infection, pollution, viruses or bacteria. It is caused by food and the problem is obesity. In the past three decades, the number of overweight and obese people in the United States nearly tripled to jaw-dropping levels.

While some are more than others, everyone seems to be affected: young, old, men, women, regardless of ethnicity or social standing. There are two main causes for the increasing numbers of overweight Americans: 1-too much food is being taken in and 2- not enough of the food is being used as energy in physical activities. The problem started to become serious years ago as more and more technologies were introduced to everyday life. Inventions such as the computer and automobiles make physical activities less appealing while making food more appealing with advertisements and fast food restaurant drive-thrus. As the typical American family leads their busy lifestyles, they develop poor eating habits that eventually lead to becoming overweight and possibly obese. The biggest victims in this scenario are the youth of America, who seem to be growing in size more so than any other group in the United States.

America's youth are being led into a lifestyle that involves more junk food than healthy food and more complacent activities than activities that require a lot of energy. As they grow, it is extremely important that children receive the proper nutrition. Without a healthy diet paired with exercise, health problems are sure to arise. There is already a growing number of children with Type 2 diabetes, a type that used to be considered "adult onset diabetes". The United States does not face the problem of obesity alone, many other countries all across the globe are dealing with the same increase of overweight citizens- especially children. America children are facing a unique problem that has devastating effects on life, however, with more awareness and care taken to stay healthy, America's youth can grow up to overcome being overweight.

The terms "overweight" and "obese" are both relative terms used freely to describe one's physical appearance. Although the words are often construed to mean the same thing, there is a fine line between being "overweight" and "obese". Any definition of obesity is arbitrary and subject to shifts in perception.

Obesity, generally speaking, is a condition of excess adipose tissue that results from an imbalance between energy consumed and energy expended (Akers 13). To truly define the difference between being obese as opposed to being overweight, the government designed the Body Mass Index. In the late 1980s, the Body Mass Index (BMI) replaced the Metropolitan Life ideal-weight charts as the preferred method for determining obesity. The BMI was originally composed by the mathematician named Lambert Adolphe Jacques Quetelet in 1871. The BMI is a ratio involving weight to the square of height. In order to find an individual's BMI one must divide the person's weight in kilograms by the square of the person's height in meters:  $BMI = \frac{\text{weight}}{(\text{height})^2}$ . It may also be found by multiplying weight in pounds by 700, then dividing the figure by height in inches and dividing the figure once again by height in inches:  $BMI = \frac{\text{weight in pounds} \times 700}{(\text{height in inches})^2}$ . When first introduced, the cutoff point for being considered obese was 30. Seven years ago, however, the National Institutes of Health made new guidelines concerning BMI. The research done showed that the risk of early death increases when a BMI of 27 is reached, thus the acceptable BMI was lowered from 30 to 25. For children and adolescents, overweight and obesity are identified by being at or above the 85th and 95th percentile of Body Mass Index. Some researchers refer to the 95th percentile as overweight while others refer to it as being obese.

The American Obesity Association (AOA) uses the 95th percentile as criteria for being obese. Once a child reaches the 95th percentile of BMI they correspond to having a BMI of 30 in adults. Being in such a high percentile also is associated with elevated blood pressure and lipids in older adolescents while

increasing risk of diseases (American).

The typical American family consists of two parents and two children. The Smith family is made up of Tony and Alicia Smith and their two children, Aaron and Gina. The Smiths reside in the Midwest portion of the United States where they live a comfortable middle-class lifestyle. Both parents work to bring in an income while the two children attend a public school for education. In the time spent away from work and school, the Smith family keeps very busy with their schedules. Aaron and Gina both are involved in school activities that practice after school at least twice a week. Alicia Smith is an active member of a local community group that meets to discuss community problems. Tony Smith spends his free time doing work around the house or practicing his hobbies like hunting or fishing. With such busy lifestyles it may be hard to believe that members of the Smith family are considered to be overweight for their age and height.

About 30.3 percent of children ages 6 to 11 are overweight with an additional 15.3 percent being obese. For adolescents ages 12 to 19, 30.4 percent are overweight with 15.5 percent obese (American).

According to Keith Thomas Ayoob, an associate professor at Albert Einstein of Medicine, "This may be the first generation of kids that has a life span shorter than that of their parents. (It Takes)" In just a matter of a few decades, the number of overweight children in the United States has nearly tripled. There are many contributing factors to the rising numbers of overweight youth in America. Some of the main causes for the increase include things such as a combination of fast food, fatty snacks and soda intake, a lack of physical activity, increased portion sizes and a lapse in parental dietary discretion.

Like many American families, the Smith family struggles to keep up with a busy schedule almost everyday. With so much time being spent away from the home, families find it increasingly harder to find the time to sit down with a healthy, home-cooked meal. Many experts cite the absence of sit-down family meals as one of the factors that can lead to weight gain in children. An astonishing 34 percent of Americans' total diet consists of restaurant food, fast food, and snacks. This number is nearly double what it was twenty-five years ago. While fast food and restaurants may seem to be a good solution for the family on the go, most of the food prepared in restaurants tends to be high in calories, sugar and salt while being low in valuable nutrients such as vitamins, calcium and fiber. Along with having poor nutritional value, foods eaten at fast food restaurants also have huge portion sizes. Along with the increase in restaurant food intake, children's diets are low on healthful foods such as fruits, vegetables and dairy.

Snack foods for America's youth often are high in fat with no nutritional value. Likewise, children are consuming more soda, juice with added sugar and sports drinks than water. These water alternatives are all high in calories, yet low in their ability to alleviate hunger (It Takes). Reducing the amount of soft drinks in one's diet can have an adverse affect on the number of calories that are ingested.

The threat of overeating is second only to the American citizens' lack of physical exercise American citizens partake in. Americans are consuming more food than ever before, but the level of physical activity is declining. While the Center for Disease Control (CDC) and other organizations recommend that children participate in physical activity a minimum of an hour daily, kids are actually engaging in less physical activity. It has been noted that physical activity dramatically declines over the course of adolescence. Forty-three percent of students in grades 9-11 will openly admit they watch television more than two hours per day; a statistic that proves the statement that television has been cited as the number one cause of childhood and adolescent obesity (Akers 35). More than a third of high school students do not regularly engage in vigorous physical activity (Statistics). Much of the decline in activity among citizens can be attributed to modernization. Inventions such as the computer and automobiles require little physical effort to operate. As Dr. F. Xavier Pi-Sunyer explains, "Somehow in the late 1980s, the thinking goes, the effects of modernization-of computers, remote controls, and one or more cars in every garage-combined with an unprecedented abundance of cheap, energy-dense food to produce a population that eats more while becoming ever less physically active (It Takes)." As suburban-

America grows more and more people rely on cars and other forms of transportation; Americans are spending hours sitting on a train, bus or car instead of doing something active. Most experts agree that the resulting lack of physical activity is the primary reason kids become overweight. Many children simply are not moving their bodies enough to burn off the calories they take in (Akers 35). In a 1993 study done by the United States department of Health and Human Services, 14 percent of all deaths in the United States were attributed to activity patterns and diet. Another study linked secondary lifestyles to 23 percent of deaths from major chronic illnesses. For example, physical activity has been shown to reduce the risk of developing or dying from heart disease, diabetes, colon cancer, and high blood pressure. On average, people who are physically active outlive those who are inactive (Statistics).

Although making healthy eating choices can help in the fight against fat, just watching what one eats is not enough. Along with watching the kinds of food one is ingesting, one must also be cautious about portion sizing. Over the years, Americans have acquired the habit of simply eating way too much food. Restaurants are particularly guilty of over-sizing meals. For instance, the original McDonald's hamburger weighed in at 3.7 ounces. Today however, a customer can choose from the 7.6-ounce Big Mac, the 9-ounce Arch Deluxe, or the double Big Mac with four beef patties. Fast food restaurants make it easy for people to get more food for less money, causing Americans to be disillusioned about how much they are actually eating. According to one writer, "Food and drink portions have ballooned to the point that marketers need a whole new vocabulary to describe them. Selections no longer stop at large. They're jumbo or supreme. They're monster. They're super-size (Akers 31)."

In the battle against poor eating habits, American children are at a major disadvantage. While living at home, most children do not get to choose what they eat most of the time. Choices are made by parents. Without being conscience of it, parents can instill poor eating habits in their children that can harm them for life. On average, overweight teens have a 70 percent chance of becoming obese adults, however, if one or more parent is overweight or obese, the chances of a teen growing up to be obese increases to 80 percent (Statistics). Parents who realize this can take action by restricting what their children eat. Taking fatty snack foods out of diets and giving children healthy after school snacks can go a long way in preventing youth obesity.

Growing children have different dietary needs than that of adults who have already reached their full growth potential. After birth, the human body grows fastest during childhood and adolescence. Up to 20 percent of a person's adult height is achieved during the early stages of puberty. It is crucial that America's youth are getting the proper nutrition in their diets that allow them to grow up healthy. Just because a child is meeting the suggested calorie intake does not always mean the child is healthy. Overweight children can have trouble ingesting the proper amount of vitamins and minerals it takes to keep their bodies growing.

Vitamins A, C, D, and K are all important to growing bodies. Vitamin A is a fat-soluble vitamin. A deficiency in vitamin A can occur in children with a fat malabsorption or with a poor diet. Vitamin C is used or taken to prevent colds and other illnesses. Fruits and vegetables are good sources of vitamin C. Vitamin D is extremely important for bone growth and vitamin K is needed for proper blood clotting abilities. With the help of the food guide pyramid, children and adults alike are able to see what foods should be eaten as well as how much should be eaten. The food guide pyramid introduced in 1992 was designed to help people make healthy eating choices. Recently, the food guide pyramid was changed and a greater emphasis on exercise is displayed in it (KeepKids). Once one knows what vitamins and minerals come from what foods, the food guide pyramid is an excellent tool to utilize when planning a healthy diet.

On average, children consume 1700-1800 calories a day, however they can still fall short in certain vitamins or minerals. Calcium is one extremely important mineral that children are falling behind

on. Calcium is responsible for promoting proper bone growth and maturation. In recent years, children have actually experienced a decline in calcium intake. According to a National Institute of Health conference held in 1994, children need 800-1200 mg of calcium a day to maintain proper growth. In order to meet this requirement, it is recommended that children drink more milk and dairy products. With an increase in the amount of healthy dairy products eaten, children are less likely to become candidates for diseases such as osteoporosis (eDietStar).

Being overweight or obese has devastating effects on the quality of life one can enjoy. According to the US Surgeon General, 300,000 deaths every year in the United States are associated with obesity (Statistics). Overweight and obesity are associated with heart disease, certain types of cancer, stroke, arthritis, breathing problems, psychological disorders such as depression, and type two diabetes. As more and children are becoming overweight, more and more children are developing diabetes. Type two diabetes is a condition in which the body either makes too little insulin or cannot properly use the insulin it makes to convert blood glucose to energy. For reasons not totally understood, extra adipose tissue increases the body's need for insulin. At the same time, fat also creates a resistance to insulin causing obese people to be candidates for type two diabetes, also known as mellitus (Akers 47-48). In fact, a weight gain of anywhere from 11 to 18 pounds increases a person's risk for developing mellitus to twice that of individuals who have not gained weight. Additionally, over 80 percent of people with diabetes are overweight or obese (Statistics).

While the numbers of overweight youth in America have been rising for the past few decades, it is not yet too late to reverse the trends. There are many ways the American government can work with its citizens to instill better living habits. One way to get children more active is to have stricter school physical education programs. As Liane M. Summerfield states in *Promoting Physical Activity and Exercise among Children*, "Over the years, state requirements for daily physical education have eroded, and today no states currently have such a requirement...just 47% of middle/junior high schools and 26% of high schools require at least three years of physical education (Statistics)." The fact that physical activity can be linked with increased academic performance, self concept, mood, and mental health should help promote physical activity kids participate in at school. In 2002, under "No Child Left Behind", The PEP act was made to generate much needed money for physical education programs in America. With the grants awarded from PEP, schools are able to fund community- based PE programs, buy better sports equipment, as well as train staff, administration and teachers. According to Steve Spangler of Kentucky, "The students are learning how to incorporate fitness in their everyday lives. This will allow them to incorporate lifelong fitness activities and principles through their lives. The PEP grant has allowed us to have a new attitude among our students and parents towards physical education (The Carol)."

While schools adopting fitness programs solves one of the causes for overweight youth, there is still more they can do. In 1946, Congress adopted the National School Lunch Program after examining the health of young men who were rejected from the World War II draft. Since 1966, school meal programs should meet the Dietary Guidelines for Healthy Americans. These lunches should be low in fat and sodium (Vermont). Though this is true, school lunch programs are oftentimes filled with unhealthy foods, and vending machines filled with fatty snacks can be found lingering in the hallways of most American schools. Instead of offering a cheeseburger and an order of fries, schools could offer a grilled chicken sandwich with a smaller order of fries. A healthy lunch for growing kids includes a whole grain (white bread and bagels excluded), protein like turkey or peanut butter, fruit or vegetables and a drink such as milk. Developing a healthy lunch menu does not have to be expensive either. One school in New York was hired to make a healthier menu for the students to choose from. The secret was recycling leftovers, using vegetables from one days lunch as soup in the next (It Takes).

Healthy school meals are one way to ensure proper nutrition in America's youth, but schools are

not the only ones who are changing their menus. Restaurants all across the United States have taken heed to the rapidly growing number of obese Americans and are doing their part to help in the fight against obesity. Fast food chains such as McDonald's have adopted salads to their menu to give consumers a healthy alternative to other menu choices. Other restaurants have set up their menus to inform the consumer about the meals they may be interested in. For example, Applebees has symbols placed by meals to show if they are heart healthy or have any other health significance. Chef Charlie Trotter states, "We can promote healthier eating habits by demonstrating that great cuisine can be accomplished without using unhealthy ingredients. I have spent my entire career as a chef searching out the very finest products from all over the world. It all starts with exceptional ingredients." (FiJi).

The same programs implemented in small communities and schools can be implemented in state-wide institutions and even all over the United States. All three: small communities, states, and national organizations should work together to provide proper programs and awareness of obesity and the health problems it causes in the United States. While America has a lot of work to do in this area, it is not the only country facing problems of obesity in its citizens. More than seven European countries have higher proportions of overweight than the United States. Cyprus, The Czech Republic, Finland, Germany, Greece, Malta and Slovakia all have higher percentages of overweight men than America. Even in countries like France with low numbers of overweight citizens, concerns are arising. In France, obesity in women rose from 8 percent in 1997 to 11.3 percent in 2003. Findings for men were very similar. In 2003, The International Obesity Task Force estimated about 200 million of the 350 million adults that live in the European Union are overweight or obese (Payne). Europe is eager to stop the trend though. In 2004, a record grant was awarded worth 11.7 million. The grant from the European Commission to European scientists will be used for research to find ways in which body weight is maintained (Europe). With so many countries experiencing similar problems, it would be wise for international networks to form and engage in research and information sharing. Since the trends seem to be the same, the solutions are most likely the same too. The battle against obesity is a long, hard battle to overcome, but with a coalition that spans the globe, working solutions would be easier to come by.

There is no doubt the rising numbers of overweight Americans is cause for concern. Although the United States had been thought of as one of the heaviest countries, other nations are facing the same struggles with weight. Obesity is a global problem that needs to be addressed on all levels; everywhere from the family at home all the way to the government. Just as the relevance of obesity took time to make a major impact, it will take time for citizens to change their lifestyles and make better decisions when it comes to diet and exercise. Programs such as school lunches and physical education classes have already begun to make progress, along with restaurant menus. Even the food guide pyramid has changed in the past few years to account for the rising numbers of overweight problems today's society is facing. Creating awareness is key: more citizens need to be educated and informed on what they should be doing to stay healthy. Awareness paired with a healthy diet and exercise can change the shape of a person, the shape of a nation, and the shape of a world.

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