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Mrs. Liebl Hour 1

Cause and Effect Paper

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Obesity: The Facts About the Fats

More than 35 percent of people over the age of 18 in the United States are obese, and over 17 percent of children in the United States are obese. The Centers for Disease Control reports that "The rate of childhood obesity has tripled since the 1980's, with about 12.5 million obese children ages two to 19." This is shocking to many people around the country, and many wonder why the rates of obesity are rising. Obesity has many different factors and causes that play into it, but three main causes of obesity are genetic defects, pre-natal care, and the exercise to calorie ratio of people's diets.

In recent years, numerous universities and medical institutions have been conducting studies about obesity. One major study that has occurred is looking for genetic defects in the body that cause obesity. In these studies it has been found that part of the 16th chromosome may be deleted in the DNA of several people and families who are obese or where obesity runs in the family. Severe obesity from a young age is common when part of this chromosome is deleted. The SH2B1 gene on chromosome 16 is the particular gene that is not present in people with this genetic defect. This SH2B1 gene is important in regulating weight and blood sugar levels throughout a person's body. When someone does not have the SH2B1 gene on their 16th chromosome, that person has a tendency to eat more and gain weight more easily than the average person. Dr. Matt Hurler said, "This is the first evidence that copy number variants have been linked to a metabolic condition such as obesity." ("Genetic", 2009) The SH2B1 gene also

helps the human body accept insulin, a hormone that regulates the amount of sugar in a person's blood stream. When the gene is deleted, the body has a higher resistance to insulin and this increases the person's risk of obtaining type two diabetes. Throughout the many studies conducted, the genetic defect of the 16th chromosome that causes obesity was only found in one percent of the people studied. ("Obesity", 2014) Although this genetic defect is not the cause of every person's obesity, it does affect people throughout the world.

Genetic defects are a cause of some cases of obesity, but a larger cause is a mother's pre-natal care of her child. Many things such as the weight of a mother during pregnancy, smoking, drinking, and breastfeeding, have a great effect on the risks of childhood obesity. (Seipel and Shafer, 2013) When a pregnant woman consumes more fat in her diet than needed during her pregnancy, it programs overeating into the child's brain. When the baby is born, the child thinks that overeating is normal, and the child tends to gain weight faster than the average child. According to "Obesity" "Maternal consumption of excessive amounts of fat during pregnancy programs overeating behavior in children." When a mother eats a high-fat diet while pregnant, her child has a desire to also eat more fatty foods when they are born. To help determine how important pre-natal health was to an unborn child, tests were conducted on rats. A group of pregnant rats was given foods high in fat to eat as part of their regular diet. The unborn offspring of the female rats on the high-fat diet had brain cells that produced high amounts of a protein called orexigenic peptides which makes an animal, or human, have an appetite. When large amounts of this protein were produced, it caused the rat to eat more and would also cause a human to eat more. The protein continued to be produced in high amounts after the rat was born and made the rats eat more throughout their life. ("Obesity", 2014) This study proved scientists' beliefs that the diet of a pregnant mother was very important to her unborn child. Pre-natal care

is vital in the role of a child's health, and the dietary choices a mother makes during her pregnancy may affect the life of the child for years.

Genetic defects and pre-natal care are very important factors in the causes of obesity in adolescence through adulthood, but they still do not tip the scale at the heaviest cause. The main cause of obesity is that people tend to eat foods extremely high in unhealthy fats and artificial sweeteners and have a tendency to have minimal, if any, exercise or activity in their daily life. Throughout the past years, unhealthy foods have become convenient and accepted in the diets of people in the United States and other countries. Vending machines are in most public places filled with processed and packaged foods. Gas stations and grocery stores sell pre-packaged and processed foods to help make people's daily lives easier and more convenient. Although these types of food may be quick and easy, they are extremely unhealthy and do not give much nutritional value, if any. Consuming these foods gives the body a high amount of calories and unneeded fats, instead of the healthy vitamins and nutrients the body needs to function well. "Obesity" said, "An abundant supply of readily available high-calorie foods and beverages, coupled with increasingly sedentary living habits that markedly reduce caloric needs, can easily lead to overeating." ("Obesity", 2014) Along with high calorie consumption, people are leading more inactive lives today than they have in the past. Television and gaming systems are also becoming more common in households and the choice of children and adults for entertainment instead of being outside and active. While watching television, many people see commercials or advertisements with food on them and want to snack and eat more while watching their favorite programs. This leads to taking in even more calories, while being even more inactive. While playing on gaming systems people become sucked in and addicted and lose track of time. They are enjoying this inactivity, and are not aware that they are sitting around too much. The rise in

obesity rates comes from the rise of calories people are consuming and the decline of activity and exercise in their daily lives. (Beales III and Kulick, 2013)

Genetic defects, pre-natal care, and high calorie, low exercise lives are all causes of obesity around the world. The genetic defects in the body are non-preventable, but even with the defects it is possible to lose weight and become healthier with the correct diet and exercise. Pre-natal care and high calorie, low exercise lives are 100 percent preventable. Awareness is spreading worldwide about obesity. With this increase in knowledge the goal is to help people lose weight and help decline the currently high statistics of obesity. As Maya Angelou said, "If you don't like something, change it."