

Carbophobia's Impact on the U.S. Obesity Epidemic

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The obesity epidemic is a serious problem in the United States. The National Center for Health Statistics estimates that 41.9% of adults over the age of 20 in America are classified as obese with a Body Mass Index (BMI) greater than 30.0 (Stierman, 2021). The obesity rate has steadily increased in the U.S. since the 1960s, despite the drive toward popular low carbohydrate and ketogenic diets since the advent of the Atkins Diet in the 1970s. Many Americans believe that carbohydrates are the cause of obesity, and this narrative is often pushed by mainstream media outlets. On June 7th, 2022, Shiv Sudhaker with Fox News published an [article](#) titled ‘Overeating isn’t fueling obesity, it’s too many carbohydrates in our diet, researchers say’. With the popularity of low carbohydrate diets, why do Americans continue to gain weight? Carbophobia, or intense or obsessive avoidance of carbohydrates, has substantially contributed to the increasing waistlines of Americans.

Carbohydrates are some of the healthiest foods one can eat. Broccoli, apples, whole grains, and beans are carbohydrates. Potato chips, cakes, and cookies are also carbohydrates. While too many carbohydrates add to a person’s overall calorie load, a single food group is not to blame for obesity. The Food and Agriculture Organization (FAO) of the United Nations tracks caloric intake across the world. According to Skye Gould’s 2017 Business Insider report on this data,” The average American consumes more than 3,600 calories daily – a 24% increase from 1961, when the average was just 2,880 calories.” In 2020, the FAO updated their estimate concluding that the average American’s daily intake is now 3,862 calories (FAO, 2020). FAO’s data indicate that 42% of those calories are derived from fat. The Dietary Reference Intake (DRI) for fat is 20-35% of energy and 45-65% of energy should come from carbohydrates according to the Food and Nutrition Board of the Institute of Medicine (Trumbo, 2002). Clearly, Americans are eating too much fat and not enough whole carbohydrates.

Low carbohydrate diet advocates demonize all carbohydrates and often cite anecdotal evidence to show that carbohydrates are the main problem. Low carbohydrate and very low carbohydrate, or ketogenic diets do work for many people to lose weight. Initially, a low carbohydrate will cause water weight and glycogen stores to deplete causing immediate results. People often stick to a diet where they see results so additional weight loss often ensues. When Uncle Frank suddenly drops 30 lbs., his friends and relatives want to know how he did it and may try a low carb or keto diet. Anecdotal evidence is a popular tool to show results of the diet but does not account for additional calories removed.

Plant-based diets also work for weight loss, yet they tend to be very high in carbohydrate content, averaging 65-75% of calories from carbohydrates. Obesity researcher Dr. Kevin Hall from the National Institute of Health published the results of a 2020 study comparing low carb high fat diets to low fat plant-based diets. Dr. Hall found that both diets worked, but that more body fat was lost on a plant-based diet. The Forks Over Knives website publishes anecdotal weight loss success stories using plant-based diets and the results are often dramatic. Carbohydrates and their consumption are not the problem and do not necessarily lead to obesity.

Despite diet wars and anecdotal evidence of what may work, confusion over the cause of obesity persists. Yet we are certain that there is only one clear way to lose weight: a calorie deficit. This means that one is burning more calories than they eat. Cutting an entire food group like carbohydrates, meat, or dairy will likely cause a calorie deficit and weight loss will ensue. The BMJ (formerly British Medical Journal) commissioned a paper with scientific researchers from multiple continents to create a firm consensus on the status of obesity research. The researchers stated that: “The energy equation – that calories consumed=calories expended +/- calories stored (as body fat or glycogen)—is always true.” (Lean, 2018). In other words, it is not

one food group but the overall calorie intake minus the energy expended that causes weight gain or loss.

Carbophobes can lose weight cutting carbs but may be missing the beneficial antioxidants and fiber in doing so. Whole intact plant foods tend to be low in calories and the consumption of whole grains, fruits, and vegetables confer better health (Cena, 2020). Carbophobia does not necessarily cause obesity, but it adds to the confusion surrounding the massive calorie intake by Americans and focuses on calorie dense foods, which are a major part of the over consumption of calories. High fat food items contain more than twice the calories per gram as carbohydrate foods contain. Fat contains 9 calories per gram and carbohydrates contain 4 calories per gram. Removal of carbohydrates lowers the intake of low-calorie foods and increases the intake of higher calorie foods.

American convenience foods like fast food and prepackaged snacks also tend to be very high in calories. One ¼ lb. cheeseburger and a medium french fry from McDonald's contains 918 calories. One slice of pizza contains 285 calories. Three Oreo cookies contain 160 calories. These food items add up fast even though women only need 1600-2400 calories daily and men only need 2000-3200 calories daily according to Sarah Klemm from the Academy of Nutrition and Dietetics (2019). In cutting carbs, one would also cut these convenience foods, which would be beneficial to weight loss. It isn't just the carbs that are cut, the overall calories are reduced.

Cutting refined carbohydrates is not a detrimental change for any diet, because they do not contain a lot of nutrition and tend to be empty calories. In addition, when one cuts out the refined carbs, they cut all the stuff that goes with it. For example, a bagel often is topped with cream cheese, and toast is often topped with butter or avocado so on top of the carb cutting, a lot of other calories go with the carbohydrates. However, carbophobes often vilify all

carbohydrates and tend to cut some of our healthier food choices. Dietary fiber that is found in whole grains, fruits, and vegetables feed our healthy gut bacteria. Researchers found that obesity is linked to diets low in fiber which result in an altered gut microbiome, further exacerbating obesity (Aoun, 2020). Less than 10% of Americans get enough fiber in their diets which is associated with an increased risk of chronic diseases (Quagliani, 2017). Fiber rich whole plant foods are not the problem.

It is easy to see how carbophobes could be confused about the overconsumption of calories and its role in obesity. Carbophobia leads to an increase consumption of high fat low fiber foods that are calorie dense and will alter the gut microbiome possibly leading to further obesity. Too many calories cause obesity in America, but carbophobia creates additional problems that significantly contribute to the U.S. obesity epidemic.

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