# US Population Increases Rate of Obesity Despite No Increase in Caloric Intake

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Over the last twenty years the United States, which has often been criticized for a poor diet, has seen an increase in obesity rates. A CDC examination of data collected through the National Health and Nutrition Examination Survey (NHANES) saw that since 2000 the United States obesity rates with the population has increased over eleven percent, with severe obesity raising to 9.2% (CDC, 2022).

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Figure 1: Data from the past 10 years of NHANES surveys plotting average calories on the y-axis

Using NHANES data we are able analyze and plot projected average caloric intake over the past ten years. Despite no clear drastic changes in energy consumption, which continues to hover around 1900 calories, we continue to see obesity rates increase in the population. Over the years several theories and possibilities have arose concerning the diets and intakes of certain foods by the population. The processing of foods, addition of preservatives, and an increase in sugar consumption all have made traction in this topic as these can all effect and change the bodies metabolic process’s when exposed to improper amounts. While evaluating the data we saw an increase in fat consumption, all while decreasing both protein and carbohydrate consumption. Sugar, another food molecule we often hear about did lower ten grams but according to the survey we are still on average consuming in excess of 100 grams of sugar. 4 times what we should be. We also need to pay attention to micronutrients (Vitamins and Minerals) which have seen a decrease in consumption. While an increase in supplementation across the population has been a positive, supplements generally have a low bioavailability when compared to when we get them in food. In the past foods like our grains and milk have been fortified with vitamins and minerals as a method for maintaining proper consumption in the population. Some Chart, histogram

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Figure 2: Average proportion of calories which come from fat's

Figure : Number of calories consumed as saturated fat

If we look more specifically at what fats are being consumed, saturated fats which were already above a ten percent RDA have increased to be nearly 12% of the diet and just under 230 calories of the typical diet (See Chart Above). Due to the biochemical structure of saturated fats, they can lead to the development of diseases and raise cholesterol if not eaten in a healthy amount. It is also important to note not getting enough fats would also be detrimental to one’s health as they contribute directly to hormones and other needs within the body.

Positive results of the data exploration show an overall decrease in total daily sugar consumption from 2012 to 2020. This also lowers total carbohydrate consumption which fell over fifteen grams per day, sugar accounted for two-thirds or slightly over ten grams worth. Fats that were mentioned above can lead to an increase in obesity since the body would move to store them when not used. The body also converts sugars into glycogen when you consume too much or have no use for it. A study from 2009 showed that fructose, which is often found in the form of corn syrup, leads to the development of increased visceral adipose tissue and insulin resistance (Stanhope et al., 2009). Fructose can skip the first step in glycolysis which can lead to increase consumption among other issues. The study pointed out that insulin resistance which can develop in those overweight or obese, developed in subjects who were give fructose beverages opposed to those just given glucose. This suggests body metabolism is impacted in ways just outside of the primary sugar pathway glycolysis. Another important finding in the study was both beverages lead to weight gain, the fructose subjects gained more size. Current day development of beverages now lacking high-fructose corn syrup likely have led to a decrease in sugar consumption along with more companies removing it from foods. Considering this, we are still witnessing increasing rates of obesity across all types of people including those with food insecurity. While we cannot definitively say why this is, it is always best to be careful when choosing food and making sure to properly exercise as a preventative measure.

CDC. (2022, July 20). Obesity is a Common, Serious, and Costly Disease. Centers for Disease Control and Prevention. https://www.cdc.gov/obesity/data/adult.html

Fat and Calories: The Difference & Recommended Intake. (n.d.). Retrieved December 21, 2022, from https://my.clevelandclinic.org/health/articles/4182-fat-and-calories

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