

The Nayak Narrative



The Psychology of Health

Exploring the current obesity crisis, its causes, origins, and ways to resolve the issue.

- By Aditya Nayak

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Overview

Obesity today is one most observed epidemic throughout the world; a medical condition characterized by the collection of excess body fat which poses a health risk ahead. According to the *World Health Organization* (WHO) the percentage of children and adolescents aged 5–19 years living with obesity increased four-fold from 2% to 8% globally, while the percentage of adults 18 years of age and older living with obesity more than doubled from 7% to 16%. As of 2022 about 1 in 8 people worldwide show that they live with obesity, with the number of adults with obesity having more than doubled since 1990, and adolescent obesity quadrupling. Around 2.5 billion adults were overweight, and among them, 890 million were obese. The global costs of overweight and obesity are predicted to reach \$3 trillion per year by 2030 and more than \$18 trillion by 2060 if no effective measures are taken. [\[1\]](#) [\[2\]](#) [\[3\]](#)

Obesity rates are rising not only in high-income countries but also fast in low- and middle-income countries, affecting various socio-economic groups. Projections estimate that by 2025, about 2.7 billion adults could be living with overweight or obesity, and by 2030, the number of people with obesity globally could double compared to 2010, surpassing 1 billion adults. [\[4\]](#) [\[5\]](#)

A way one can measure if individuals have a healthy weight is by determining their ***Body Mass Index*** (BMI). It can be calculated using the following formula:

$$BMI = \frac{weight(\text{ in kg})}{height^2(\text{in } m^2)}$$

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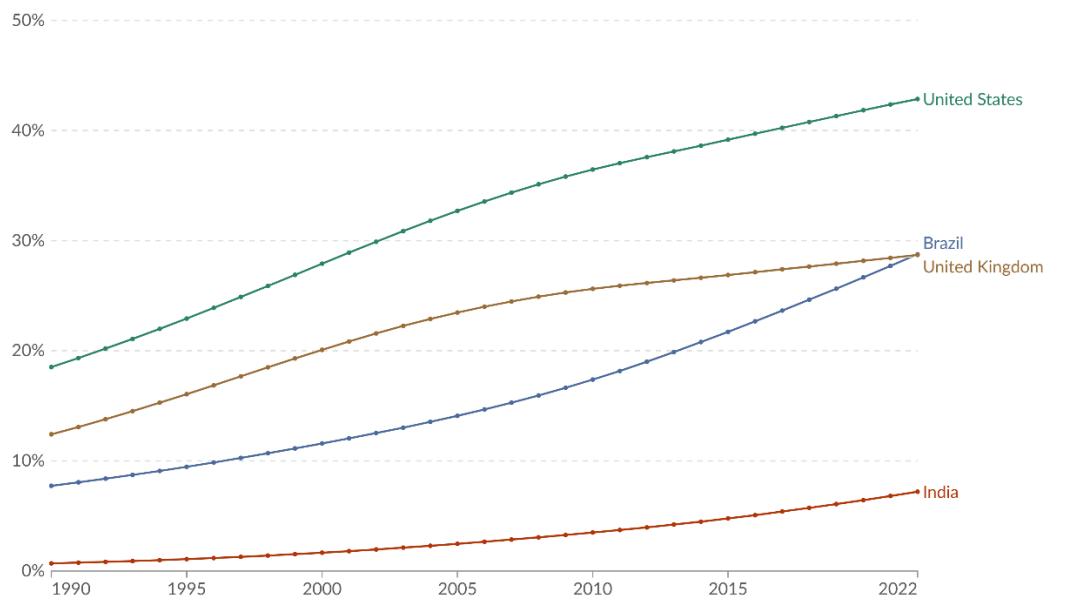
In adults if the BMI is:

- Below 18.5 – you are *underweight*
- 18.5 – 24.9 – you have a *healthy weight*
- 25 – 29.9 – you are *overweight*
- 30 – 39.9 – you are *obese*
- 40 or above – you are *overly obese*

Obesity in adults, 1990 to 2022

Our World in Data

Estimated prevalence of obesity¹, based on general population surveys and statistical modeling. Obesity is a risk factor² for chronic complications, including cardiovascular disease, and premature death.



Data source: World Health Organization - Global Health Observatory (2025)

OurWorldinData.org/obesity | CC BY

1. Obesity

Obesity is defined as having a body-mass index (BMI) above 30. A person's BMI is calculated as their weight (in kilograms) divided by their height (in meters) squared. For example, someone measuring 1.60 meters and weighing 64 kilograms has a BMI of $64 / 1.6^2 = 25$. Obesity increases the mortality risk of many conditions, including cardiovascular disease, gastrointestinal disorders, type 2 diabetes, joint and muscular disorders, respiratory problems, and psychological issues.

2. Risk factor

A risk factor is a condition or behavior that increases the likelihood of developing a given disease or injury, or an outcome such as death.

The impact of a risk factor is estimated in different ways. For example, a common approach is to estimate the number of deaths that would occur if the risk factor was absent.

Risk factors are not mutually exclusive: people can be exposed to multiple risk factors, which contribute to their disease or death. Because of this, the number of deaths caused by each risk factor is typically estimated separately.

Read more: [How do researchers estimate the death toll caused by each risk factor, whether it's smoking, obesity or air pollution?](#)

Read more: [Why isn't it possible to sum up the death toll from different risk factors?](#)

And in case you are an individual of Asian, Middle Eastern, African descent, a lower BMI score to measure overweight & obesity. [\[6\]](#)

- 23 to 27.4 – overweight
- 27.5 and above – obese

This is mainly since Asian populations have a higher percentage of body fat relative to their BMI compared to Caucasian populations. Asians tend to have smaller body frames, relatively shorter leg lengths, and different skeletal structures. At any given BMI, Asian individuals carry more total body fat than their Caucasian counterparts. [\[7\]](#)

Additionally, there are patterns of greater amount of fat stored around internal organs relative to fat under the skin; which is more metabolically harmful & poses higher health risks among Asian & Arab populations. [\[8\]](#) For most people, BMI is a useful indication of whether they're a healthy weight.

However, BMI score has some limitations because it measures whether a person is carrying too much weight but not too much fat. For example, people who are very muscular, like professional sportspeople, can have a high BMI without much fat. Another measure that can be taken to measure excess fat is by using the ***Waist to Height*** ratio. [\[6\]](#)

This can be calculated by using the following formula:

$$\text{Waist to Height} = \frac{\text{waist length}}{\text{height}}$$

Note: Ensure that both are in the same unit measure

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In some cases, the term being *obese* is sometimes interchanged with the term ‘*overweight*’ which usually means weighing too much. However, these two terms explain that your weight is greater than what’s considered adequate based on an individual’s height.

Causes

There are multiple factors that contribute towards this most essential being the energy imbalance where excess calorie intake is not equivalent to the physical activity done to burn leading to the body store excess in the form of fat.

The major and key causes contributors include:

Behavioral & Lifestyle influence

Factors like high calorie intake, lack of physical activity, poor or lack of sleep leading to hormonal affects which regulate hunger & appetite. Stress & emotional factors leading to comfort eating or high consumption of alcohol providing ‘liquid calories’ but does not provide fullness to one’s hunger requirement. [\[9\]](#) [\[10\]](#) [\[11\]](#)

Genetic & Biological factors

In some individuals’ genetics could play a role on how their bodies convert food into energy or how their body regulates their appetite and burn calories during exercise. [\[9\]](#) [\[10\]](#) [\[11\]](#) A rare genetic condition called Prader-Willi syndrome also plays a factor which causes a range of obesity-related symptoms such as type-2 diabetes, cardiovascular diseases, breathing issues etc. as long term problems caused by it. [\[12\]](#)

Medical Related Causes

Certain medical conditions such as arthritis again leading in decreased activity could be one reason; or the use of various medications such as steroids, antidepressants, diabetic medication could lead to weight gain. [\[10\]](#) [\[11\]](#)

Environment & social influences

The environment an individual places themselves, could play an effect in eating unhealthy including parts where one lives & works. A person's residence, workplace, restaurants around an individual and the amount of green space you have could be contributors. Studies have shown that access to sidewalks and green spaces can help people be more physically active, and grocery stores and farmers markets can help people eat healthier. On the other hand, people living in neighborhoods with more fast-food restaurants and inaccessible or no sidewalks or bike paths are more likely to be overweight or obese. [\[9\]](#) [\[10\]](#)

Other non-essential ways would be through pregnancy-related, smoking cessation causing The medical issues that generally arise with it range from cardiovascular diseases, diabetes, high blood pressure, excess cholesterol, liver disease & sleep apnea.

To summarize, obesity results from a complex interaction of excess calorie consumption, insufficient energy expenditure, genetics, environment, lifestyle, and medical factors. Addressing obesity often requires multifaceted interventions targeting diet, physical activity, behavioral health, and underlying medical conditions.

Origins

With the sudden rise in the number of cases and sharp spike in its annual numbers, one must ask as to what led to the obesity epidemic to occur. Why is this a matter of discussion today while our family members in the past did not undergo this issue decades ago? While yes, one might argue that due to advancement in technology & the internet age, major changes took place in our work culture reducing the daily requirement of calories; but it fails to explain the sharp spikes observed. It turns out, this was never identified as a health problem.

Initially, during the latter half of the 19th century, people would not follow any routine diet. They would consume food whenever they had the urge of food; ideally once or two times a day at max. [\[13\]](#) [\[14\]](#) They would not be highly processed and relied on locally grown, seasonal whole foods with minimal processing. Families ate three simple meals centered on grains, vegetables, and preserved meats, shaped by farming, hunting, and regional availability.

The change was first made by John Davis Rockafeller; an American oil businessman (Standard Oil) and philanthropist who was the guiding force behind the creation and development of the Standard Oil Company, which grew to dominate the oil industry and became one of the first big trusts in the United States. During 1910 when his company was expanding in the rise of industrialization, his fellow employees had to work for almost more than 12 hours causing his employees to collapse due to fatigue & extra work hours. [\[15\]](#)

To resolve this problem, Rockefeller came up with a 3-meal diet to assist workers in their day-to-day activities and provide workers the required energy. On seeing this, this model did not evolve over time and people carried on with the three-day meal plan. To capitalize on this opportunity,

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the breakfast cereal makers like Kellogg's and Post introduced breakfast norms marketing as "breakfast being the essential meal of the day" and slogans such as "feed yourself right, or you'll fail",

By 1920, big food began shaping education and home economics began teaching to cook processed meals daily thus creating the 'meal routine.' You do not eat when hungry, you eat on a daily schedule.^[16] ^[17] However, this structure started to fall out when studies came out warning of sucrose's CHD risks, prompting SRF's internal discussions on combating "negative attitudes toward sugar." A key catalyst was a July 11, 1965, New York Herald Tribune article highlighting sucrose-heart disease links.

In the late 1960's the Sugar Research Foundation (SRF) approved a study called 'Project 226' which was a covertly funded literature review initiated by the SRF to counter studies linking sugar consumption to coronary heart disease (CHD) conducted by Harvard scientists.^[18] It produced a two-part article, "Dietary Fats, Carbohydrates and Atherosclerotic Disease," published in the New England Journal of Medicine in 1967. The review downplayed sugar evidence, emphasized saturated fats and cholesterol as primary CHD causes, and omitted conflicting studies-shaping low-fat dietary guidelines for decades. Revelations from 2016 archival analysis exposed SRF's influence.^[19]

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This study directly informed the 1980 Dietary Guidelines for Americans (fat <30% calories, carbs emphasized), evolving into the 1992 the United States Department of Agriculture (USDA) food pyramid proposing to have a high grain intake in an individual's diet and having fats as the least essential nutrient.



Fig 2. Initial food pyramid diagram highlighting essential foods

This contributed to widespread low-fat products and public health messaging, later was criticized for rising obesity.

Preventive measures

While the general thought one might have is to head out to gym and workout for hours together, but that itself does. Working out usually acts as a catalyst that helps in weight-loss and speeds up the process if done right. Instead, by combining various lifestyle activities, medical interventions & community efforts focused on diet, physical activity, and behavioral support one can avoid becoming obese.

The first step we can take would be to ensuring that we have well balanced diet which should mainly consist of proteins, fats in major proportion & a small chunk within grains and emphasizing fruits, vegetables, whole grains, and portion control. This week (7th January 2026), secretary of Health & Human Services Robert F. Kennedy has unveiled a new food pyramid and dietary guidelines that call for "prioritizing high-quality protein, healthy fats, fruits, vegetables and whole grains" while avoiding highly processed foods and refined carbohydrates.[\[20\]](#)



Fig 3. Health & Human Services secretary of the United States R.F Kennedy Jr. introducing the updated food pyramid.

Another way would be to support local improvements like better sidewalks, bike routes, and affordable healthy foods through vouchers or farm programs. Engage in school-based interventions, worksite wellness, and mass media campaigns to promote nutrition and activity. Advocate for policies expanding low-calorie food availability and nutritional labeling in public spaces. In addition, community members could also provide social support interventions like group walks or exercise classes, which increase activity time by a median of 44%. Host events such as family 5Ks or activity breaks at fairs, and partner for extended gym hours or free classes. Fund programs like Communities Putting Prevention to Work for environmental changes making healthy living easier.^[21] In India recently, participative sports such as marathons and cycling events have recently gained traction and are emerging as a major growth in the sporting ecosystem.^[22]

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