



Obesity facts from <http://www.who.int/mediacentre/factsheets/fs311/en/index.html>

Obesity and overweight Fact sheet N°311 Updated March 2013

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### Key facts

- Worldwide obesity has nearly doubled since 1980.
- In 2008, more than 1.4 billion adults, 20 and older, were overweight. Of these over 200 million men and nearly 300 million women were obese.
- 35% of adults aged 20 and over were overweight in 2008, and 11% were obese.
- 65% of the world's population live in countries where overweight and obesity kills more people than underweight.
- More than 40 million children under the age of five were overweight in 2011.
- Obesity is preventable.

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### What are overweight and obesity?

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify overweight and obesity in adults. It is defined as a person's weight in kilograms divided by the square of his height in meters ( $\text{kg/m}^2$ ). The WHO definition is:

- a BMI greater than or equal to 25 is overweight
- a BMI greater than or equal to 30 is obesity.

BMI provides the most useful population-level measure of overweight and obesity as it is the same for both sexes and for all ages of adults. However, it should be considered a rough guide because it may not correspond to the same degree of fatness in different individuals.

### Facts about overweight and obesity

Overweight and obesity are the fifth leading risk for global deaths. At least 2.8 million adults die each year as a result of being overweight or obese. In addition, 44% of the diabetes burden, 23% of the ischaemic heart disease burden and between 7% and 41% of certain cancer burdens are attributable to overweight and obesity.

Some WHO global estimates from 2008 follow.

- More than 1.4 billion adults, 20 and older, were overweight.
- Of these overweight adults, over 200 million men and nearly 300 million women were obese.
- Overall, more than 10% of the world's adult population was obese.

In 2011, more than 40 million children under the age of five were overweight. Once considered a high-income country problem, overweight and obesity are now on the rise in low- and middle-income countries, particularly in urban settings. More than 30 million overweight children are living in developing countries and 10 million in developed countries.

Overweight and obesity are linked to more deaths worldwide than underweight. For example, 65% of the world's population live in countries where overweight and obesity kill more people than underweight (this includes all high-income and most middle-income countries).

### What causes obesity and overweight?

The fundamental cause of obesity and overweight is an energy imbalance between calories consumed and calories expended. Globally, there has been:

- an increased intake of energy-dense foods that are high in fat; and
- an increase in physical inactivity due to the increasingly sedentary nature of many forms of work, changing modes of transportation, and increasing urbanization.

Changes in dietary and physical activity patterns are often the result of environmental and societal changes associated with development and lack of supportive policies in sectors such as health, agriculture, transport, urban planning, environment, food processing, distribution, marketing and education.

### **What are common health consequences of overweight and obesity?**

Raised BMI is a major risk factor for noncommunicable diseases such as:

- cardiovascular diseases (mainly heart disease and stroke), which were the leading cause of death in 2008;
- diabetes;
- musculoskeletal disorders (especially osteoarthritis - a highly disabling degenerative disease of the joints);
- some cancers (endometrial, breast, and colon).

The risk for these noncommunicable diseases increases, with the increase in BMI.

Childhood obesity is associated with a higher chance of obesity, premature death and disability in adulthood. But in addition to increased future risks, obese children experience breathing difficulties, increased risk of fractures, hypertension, early markers of cardiovascular disease, insulin resistance and psychological effects.

### **Facing a double burden of disease**

Many low- and middle-income countries are now facing a "double burden" of disease.

- While they continue to deal with the problems of infectious disease and under-nutrition, they are experiencing a rapid upsurge in noncommunicable disease risk factors such as obesity and overweight, particularly in urban settings.
- It is not uncommon to find under-nutrition and obesity existing side-by-side within the same country, the same community and the same household.

Children in low- and middle-income countries are more vulnerable to inadequate pre-natal, infant and young child nutrition. At the same time, they are exposed to high-fat, high-sugar, high-salt, energy-dense, micronutrient-poor foods, which tend to be lower in cost but also lower in nutrient quality. These dietary patterns in conjunction with lower levels of physical activity, result in sharp increases in childhood obesity while undernutrition issues remain unsolved.

### **How can overweight and obesity be reduced?**

Overweight and obesity, as well as their related noncommunicable diseases, are largely preventable. Supportive environments and communities are fundamental in shaping people's choices, making the healthier choice of foods and regular physical activity the easiest choice (accessible, available and affordable), and therefore preventing obesity.

At the individual level, people can:

- limit energy intake from total fats and sugars;
- increase consumption of fruit and vegetables, as well as legumes, whole grains and nuts;
- engage in regular physical activity (60 minutes a day for children and 150 minutes per week for adults).

Individual responsibility can only have its full effect where people have access to a healthy lifestyle. Therefore, at the societal level it is important to:

- support individuals in following the recommendations above, through sustained political commitment and the collaboration of many public and private stakeholders;
- make regular physical activity and healthier dietary choices available, affordable and easily accessible to all - especially the poorest individuals.

The food industry can play a significant role in promoting healthy diets by:

- reducing the fat, sugar and salt content of processed foods;
- ensuring that healthy and nutritious choices are available and affordable to all consumers;
- practicing responsible marketing especially those aimed at children and teenagers;
- ensuring the availability of healthy food choices and supporting regular physical activity practice in the workplace.

### **WHO response**

Adopted by the World Health Assembly in 2004, the WHO Global Strategy on Diet, Physical Activity and Health describes the actions needed to support healthy diets and regular physical activity. The Strategy calls upon all

stakeholders to take action at global, regional and local levels to improve diets and physical activity patterns at the population level.

WHO has developed the *2008-2013 Action plan for the global strategy for the prevention and control of noncommunicable diseases* to help the millions who are already affected cope with these lifelong illnesses and prevent secondary complications. This action plan aims to build on, the WHO Framework Convention on Tobacco Control and the WHO Global Strategy on Diet, Physical Activity and Health. The action plan provides a roadmap to establish and strengthen initiatives for the surveillance, prevention and management of NCDs.

The Political Declaration of the High Level Meeting of the United Nations General Assembly on the Prevention and Control of Noncommunicable Diseases of September 2011, recognizes the critical importance of reducing the level of exposure of individuals and populations to unhealthy diet and physical inactivity. The political declaration commits to advance the implementation of the WHO Global Strategy on Diet, Physical Activity and Health, including, where appropriate, through the introduction of policies and actions aimed at promoting healthy diets and increasing physical activity in the entire population.

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In terms of attributable deaths, the leading behavioural and physiological risk factors globally are raised blood pressure (to which 13% of global deaths are attributed), followed by tobacco use (9%), raised blood glucose (6%), physical inactivity (6%) and being overweight or obese (5%)

Global health risks: mortality and burden of disease attributable to selected major risks.

Geneva, World Health Organization,

2009 ([http://www.who.int/healthinfo/global\\_burden\\_disease/GlobalHealthRisks\\_report\\_full.pdf](http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf)).

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Worldwide, 2.8 million people die each year as a result of being overweight or obese. Being overweight or obese can lead to adverse metabolic effects on blood pressure, cholesterol and triglyceride levels, and can result in diabetes. Being overweight or obese thus increases the risks of coronary heart disease, ischaemic stroke, type 2 diabetes mellitus, and a number of common cancers.

Between 1980 and 2008, the worldwide prevalence of obesity (body mass index  $\geq 30$  kg/m<sup>2</sup>) almost doubled (Figure 9). By 2008, 10% of men and 14% of women in the world were obese, compared with 5% of men and 8% of women in 1980. As a result, an estimated half a billion men and women over the age of 20 were estimated to be obese in 2008. In all WHO regions, women were more likely to be obese than men. The prevalence of overweight and obese individuals was highest in the WHO Region of the Americas (62% overweight in both sexes, and 26% obese) and lowest in the WHO South-East Asia Region (14% overweight in both sexes and 3% obese). In the WHO European Region, WHO Eastern Mediterranean Region and WHO Region of the Americas, over 50% of women were overweight. In all three regions, approximately half of these overweight women were obese (23%, 24% and 29% respectively).

Overweight and obesity:

At least 2.8 million people die each year as a result of being overweight or obese. Risks of heart disease, strokes and diabetes increase steadily with increasing body mass index (BMI). Raised BMI also increases the risk of certain cancers. The prevalence of overweight is highest in upper-middle-income countries but very high levels are also reported from some lower-middle income countries. In the WHO European Region, the Eastern Mediterranean Region and the Region of the Americas, over 50% of women are overweight. The highest prevalence of overweight among infants and young children is in upper-middle-income populations, while the fastest rise in overweight is in the lower-middle-income group.

**The Cost of Obesity - <http://www.core.monash.org/obesity-the-problem.html>**

Australia - New research published in 2010 shows the total direct cost of overweight and obesity in Australia is \$21 billion a year, which is double previous estimates. For the first time, the cost of "overweight" adults in Australia was calculated; costing \$6.5 billion a year. The figures relate to health care costs such as hospitalisation, medical care and medications.

America - Treating obesity and obesity-related conditions costs billions of dollars a year. By one estimate, the U.S. spent \$190 billion on obesity-related health care expenses in 2005—double previous estimates.

Looking ahead, researchers have estimated that by 2030, if obesity trends continue unchecked, obesity-related medical costs alone could rise by \$48 to \$66 billion a year in the U.S.

By one estimate, the health care costs of obesity are responsible for nearly 21 percent of total health care spending in the U.S. (1) Countries with lower obesity rates than the U.S. spend a smaller share of their healthcare dollars on obesity, but the burden is still sizable. (2)

Table: A Snapshot of Obesity-Related Costs (1,2)

Country	Obesity-Related Costs (% of total spending on health care)	Publication Year
Brazil	3.0–5.8	2007
China	3.4	2008
Canada	2.9	2001
France	0.7–1.5	2000
Japan	3.2	2007
Sweden	2.3	2005
U.S.	20.6	2012

Obesity is a global epidemic according to World Health Organization reports. There are more than 1 billion overweight (BMI 25–29.9) adults, and at least 300 million of them are obese (BMI > 30) compared with 850 million who are chronically underweight (malnutrition and hunger). The United States ranks number one in the world in rates of overweight and obese individuals per capita, estimated in 2004 at 64.5% of the population; Mexico (62.3%), the United Kingdom (61%) and Australia (58.4%) follow close behind. The lowest percentages are recorded in Japan (25.8%) and Korea (30.6%).

Researchers from Johns Hopkins Bloomberg School of Public Health addressed the prevalence of obesity and found the U.S. obesity rate has increased at an alarming rate over the past three decades, according to results of a recent study. The researchers expect that by 2030, 86% of U.S. adults will be overweight or obese, with related health care spending projected to be as much as \$956.9 billion. They concluded that without a change in people's eating habits or exercise habits, the figures will continue climbing to a public crisis.

**For the first time in human history, the number of overweight people rivals the number of underweight people....**

While the world's underfed population has declined slightly since 1980 to 1.1 billion, the number of overweight people has surged to 1.1 billion.

<http://www.ncbi.nlm.nih.gov/pubmed/20122135> ... obesity was estimated to account for between 0.7% and 2.8% of a country's total healthcare expenditures. Furthermore, obese individuals were found to have medical costs that were approximately 30% greater than their normal weight peers.

Eric Schlosser in his book "Fast Food Nation" states that the annual health care costs in the United States stemming from obesity approaches **\$240 billion**.

Researchers at Johns Hopkins University projected future obesity prevalence based on national survey data collected between the 1970s and 2004. They predicted that if these trends continue, by 2030, 86.3 percent of adults will be overweight or obese, and 51.1 percent obese. **By 2048, every American adult would become overweight or obese.** Total healthcare costs attributable to obesity and being overweight will double every decade to 860.7-956.9 billion US dollars by 2030, accounting for 16-18 percent of total US health-care costs.

30 percent of U.S. adults 20 years of age and older—over 60 million people—are obese.

Among children and teens aged 6–19 years, 16 percent (over 9 million young people) are considered overweight.