Frequently Asked Questions about Calculating Obesity-Related Risk

Is CDC changing its estimate of obesity-related deaths?

Yes. We are no longer going to use the previous annual estimate of 365,000 deaths from poor nutrition and physical inactivity.

Instead, CDC will state, "The latest study based on a nationally representative sample of U.S. adults estimates that about 112,000 deaths are associated with obesity each year in the United States." However, because the science continues to evolve and Americans' health status continues to change, this estimate will very likely change in the future as more data become available and improved methods are developed. Public health programs will continue to save more lives by promoting good nutrition and physical activity and preventing overweight and obesity in the first place.

Because obesity has so many different effects on so many diseases, it is extremely difficult for doctors to identify obesity-related deaths reliably on death certificates. So, instead, scientists use complex modeling techniques to estimate deaths related to obesity. CDC is supporting research to improve these methods. This research is part of CDC's follow-up to a December 2004 Institute of Medicine workshop, "Estimating the Contribution of Lifestyle-Related Factors to Preventable Death."

It should also be noted that obesity-related deaths do not adequately represent deaths related to poor nutrition and physical inactivity. For example, people with a normal weight can die of heart disease caused, at least in part, by poor diet and/or lack of physical activity.

Why is CDC even involved in estimating how many people die of obesity?

As the nation's disease prevention agency, CDC is charged with protecting the nation's health. Seven of the 10 leading causes of death in the United States are chronic diseases, the top two being heart disease and cancer. So many chronic diseases are affected by obesity and mortality (deaths) is an important indicator of the severity of a public health problem. Estimating deaths from obesity helps us better understand one aspect of the burden of obesity.

However, just as important as mortality is the morbidity associated with obesity. Morbidity associated with obesity includes serious chronic diseases like diabetes, heart disease, some cancers, and arthritis, accompanied by pain and suffering, reduced quality of life, and medical costs for treatment.

Why is this latest estimate of the number of deaths (112,000) so much lower than the number (365,000) CDC issued within the past year**?

There are two main reasons for the difference in the estimated number of obesity deaths that CDC scientists have published over the past year: newer data and different methods of analyzing the data.

The use of newer and different data sets (from different samples of the population) accounts for most of the difference. Earlier estimates only reflected the obesity-related health risks that people experienced in the 1970s. The newer data (some with mortality follow-up through 2000) appear to reflect a real decline in the risks of dying from obesity-related diseases like heart disease.

Big improvements in the control of risk factors for heart disease, such as better drug management of high blood pressure and cholesterol, may have resulted in far fewer people dying today as a result of obesity. The new data may also reflect advances in life-saving interventions for obesity-related diseases (such as catheterization and reperfusion therapy for heart attacks). CDC will continue to monitor these trends and take steps to ensure that even fewer people will die of obesity in the future.

The recent study also used different statistical methods to estimate the proportion of deaths in the population related to obesity. These methods took into account the decline in obesity-related deaths among older adults.

Does this study mean that obesity is less important than CDC once thought?

Not at all. Over the past two decades obesity rates have doubled in adults, and the percentage of children who are above their normal weight has doubled during the same period. The percentage of adolescents who are above their normal weight has tripled. Obesity causes many thousands of deaths in adults and is an important risk factor for serious diseases like diabetes, heart disease, some cancers, and arthritis.

Diseases and conditions related to obesity include:
- Type 2 diabetes
- Hypertension
- Heart disease
- Stroke
- Breast cancer
- Colon cancer
- Gallbladder disease
- Arthritis
- Physical disability
- Sleep disturbances
- Breathing problems

Obesity also is linked to higher health care costs, pain and suffering, and negative effects on physical ability, mobility, and other quality-of-life measures. These measures are very important to consider, since medical science continually improves and does a better job of reducing deaths once you have a disease. For example, suffering a heart attack related to obesity may not be as deadly as it once was, but may reduce quality of life substantially.

What's the difference between overweight and obesity?

The most common tool used to figure weight is the "body mass index," or BMI, a number that shows body weight adjusted for height. For adults, a BMI of:
- 18.5 to 24.9 indicates normal weight
- 25 to 29.9 indicates overweight
- 30 or over indicates obesity.

The BMI provides a good quick estimate of a person's body fat, but it has its limitations because it does not measure body fat directly. Some athletes, for example, may have a high BMI although the reason for their excess weight is muscle mass, not fat. Excess weight, regardless of whether it is muscle or fat, can cause health problems by putting a strain on joints.

For children and adolescents, "overweight" instead of "obese" is the term used for a BMI at or above the 95 percentile for a specific sex and age.

Adults who are overweight do not necessarily have an excess of body fat, whereas a BMI of 30+ usually indicates an increase in body fat. Increased fat is the primary reason obese adults are at increased risk for a whole range of negative health conditions and diseases.

Whatever your BMI, talk to your doctor to see if you are at an increased risk for disease and if you should lose weight. Even a small weight loss (just 10% of your current weight) may help to lower the risk of disease.

To calculate your BMI, go to www.cdc.gov/nccdphp/dnpa/bmi/index.htm.

I am in the overweight category and was thinking of losing a few pounds to improve my health. Should I forget about that for now?

No, keep with your plans to eat a healthier diet and become more physically active. Achieving and maintaining a normal weight is best for your overall health. In fact, practicing healthy lifestyle behaviors will help prevent overweight and obesity as well as improve other risk factors.

Is overweight bad for your health?

Being overweight carries health risks. Overweight increases your chances of getting type 2 diabetes. It increases blood pressure and cholesterol levels. Overweight also carries risks for osteoarthritis, low-back pain, and other health problems. In addition, being overweight is a warning sign that a person may be on the path to becoming obese.

What are the health benefits of good nutrition, physical activity, and achieving and maintaining a normal weight?

Whether or not they result in weight loss, good nutrition practices and physical activity established in childhood and continued into adult life offer better lifelong health and reduced risk of many of the major chronic diseases.

Children and Adolescents: Preventing overweight in childhood and adolescence helps keep blood pressure and cholesterol at desirable levels and helps optimize the body's metabolism of glucose – thus reducing the major risk factors for diabetes, heart disease, and stroke.

Adults: For overweight and obese adults, losing weight through a combination of improved diet and increased physical activity reduces the risk of onset and/or progression of many of the major chronic diseases.

The Diabetes Prevention Program (DPP) – which CDC helped sponsor – demonstrated that changes in lifestyle, including weight control and moderate physical activity, reduced the risk of diabetes by nearly 60 percent among overweight adults with impaired glucose tolerance (one state of pre-diabetes).

Does CDC still consider obesity in America to be an important problem?

Yes. Despite the evolving science estimating the number of deaths that obesity causes, we must not lose sight of the fact that overweight and obesity should be public health concerns of this country. This epidemic has devastating impacts on health, quality of life, and health care costs.

What should Americans do with this information?

Regardless of your body weight, you should continue to pursue a healthy lifestyle, including getting regular physical activity, eating diets rich in fruits, vegetables, and whole grains, avoiding smoking, and going for regular visits to the doctor to monitor risk factors. If you have an obesity-related disease or condition and are trying to lose weight, be sure to check first with your doctor.

The 2005 Dietary Guidelines for Americans provide science-based advice about the specific diet and physical activity patterns that promote good health.

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*Flegal K, Graubard B, Williamson D, Gail M. Excess Deaths Associated with Underweight, Overweight, and Obesity. *JAMA* 2005; 293:1861-1867 *(latest study)*.

**Mokdad A, Marks J, Stroup D, Gerberding J. Actual Causes of Death in the United States, 2000. *JAMA* 2004; 291:1238 – 1245 *(original study)*. Mokdad A, Marks J, Stroup D, Gerberding J. Correction: Actual Causes of Death in the United States, 2000 (letter). *JAMA* 2005; 293(3):293-294 *(correction of original study)*.