Obesity increases the risk of many diseases. Fat is deposited on our bodies when the energy (kilojoules) we consume from food and drink is greater than the energy used in activities and at rest. Small imbalances over long periods of time can cause you to become overweight or obese.

Obesity and other non-communicable diseases (NCDs) such as cardiovascular diseases, cancers and diabetes are now the world’s biggest killers, causing an estimated 35 million deaths each year, 60% of all deaths globally, with 80% in low- and middle-income countries.

According to the ABS: Australian Health Survey: First results 2011-2012, for Australian adults 18 years and over, the prevalence of overweight and obesity has increased over time, from 56.3% in 1995, 61.2% in 2007–08, and 62.8% in 2011–12. Men and women living in inner regional, outer regional and remote areas of Australia are more likely to be overweight or obese, compared with men and women living in major cities.

For Australian children, there has been an increase in the proportion of 5-17 year olds who were overweight or obese since 1995, with 25.7% of children overweight or obese in 2011-12.

**Body mass index**

Overweight and obesity are defined by the World Health Organization using the body mass index (BMI). BMI is a measure of body size and is used to indicate level of risk for morbidity (disease risk) and mortality (death rates) at the population level. It is calculated by dividing your weight in kilograms by your height in metres squared. For example, a person who is 165 cm tall and weighs 64 kg would have a BMI of 24.

People with a BMI of 25 or more are classified as overweight. People with a BMI of 30 or greater are classified as obese.

BMI calculations used for adults are not a suitable measure of weight for children or adolescents. A dietitian or your doctor can assess your child’s weight using a special BMI chart, together with weight and height growth charts.

The distribution of fat is important when assessing overweight and obesity, and the associated disease risk. Increased abdominal obesity is related to a higher risk of cardiovascular disease, type 2 diabetes and cancer. Abdominal obesity is measured using waist circumference.

When identifying health risk in adults, it is recommended that you combine BMI with waist circumference as a measurement of disease risk. A waist circumference above 94 cm in men and above 80 cm in women is regarded as overweight and an indicator of serious chronic disease risk. A waist circumference above 102 cm in men and 88 cm in women is regarded as obesity.

**Increased risk of chronic disease**

Obesity increases the risk of many chronic and potentially lethal diseases.

Generally speaking, the more body fat you’re carrying, the higher your health risk. However, the amount of weight
gained throughout your adult years also contributes to the risk. For example, a middle-aged person who weighs 10 kg more than they did in their early 20s has an increased risk of high blood pressure, stroke, diabetes and coronary heart disease.

Some of the many chronic conditions and diseases associated with obesity include:

- insulin resistance
- high blood pressure
- atherosclerosis
- cardiovascular disease
- stroke
- some cancers including breast, endometrial and colon cancer
- type 2 diabetes (non-insulin dependent diabetes mellitus)
- gall bladder disease
- polycystic ovarian syndrome
- musculoskeletal problems such as osteoarthritis and back pain
- gout
- cataracts
- stress incontinence
- sleep apnoea.

Causes of obesity
A range of factors can cause obesity. Factors in childhood and adolescence are particularly influential, since a high proportion of obese children and adolescents grow up to be obese adults.

Factors known to increase the risk of obesity include:

- Eating more kilojoules than you use – whatever your genetic background, you will deposit fat on your body if you eat more energy (kilojoules) than you use.
- Modern living – most modern conveniences, such as cars, computers, televisions and home appliances, reduce the need to be physically active.
- Socioeconomic factors – people with lower levels of education and lower incomes are more likely to be overweight or obese. This may be because they have less opportunity to eat healthy foods and take part in physical activities.
- Changes in the food supply – availability and marketing of energy-dense, nutrient poor foods and drinks have increased and the relative cost of them has decreased.
- Inactivity – for most of us, physical activity is no longer a natural part of our daily schedule. Obese people tend to live sedentary lifestyles.
- Genes – researchers have found that genetics play a part in regulating body weight. However, these genes explain only a small part of the variation in body weight. Parental overweight or obesity is associated with increased risk of child overweight or obesity.
- Birth factors – some studies suggest that a person is more likely to become obese later in life if they experienced poor nutrition in utero, maternal smoking, or had a low birth weight. However, other studies show that high birth weight (especially above 4 kg) is a stronger risk for becoming overweight. There is convincing evidence showing that breastfeeding infants compared with formula feeding is associated with a reduced risk of becoming obese.

Financial costs of obesity
Apart from the massive direct health system cost of obesity to Australian taxpayers, indirect health costs include work absenteeism, production lost to premature death, and the hundreds of millions of dollars that Australians spend each year on weight management programs.

What the experts recommend
betterhealth.vic.gov.au
Experts predict that Australia's obesity rate will keep rising, which will put even greater strain on our health system. If current trends continue, it is estimated to increase for both males and females and across the age span, resulting in around one third of 5-19 year olds being overweight or obese by 2025, as well as 83% of males and 75% of females aged 20 years and over. For Australia, this would represent 16.9 million people.

Obesity is difficult to tackle because of the many contributing factors. The International Obesity Taskforce suggests:

- helping families to understand how to provide a healthy environment for themselves and their children. This would include decisions about physical activity and healthy eating habits
- identifying high-risk groups in the community
- changing city planning to include venues for safe, accessible and affordable physical activities
- improving the nutritional value of processed foods
- reducing unhealthy food marketing to children
- reducing the price of healthy foods, such as fruits, vegetables and wholegrain products
- improving the nutrition and variety of food available at school canteens and in workplaces
- improving opportunities for physical activity in schools and workplaces
- increasing education for health professionals on how to recognise and manage weight problems in people
- investing in community education programs on weight management.

Where to get help

- Your doctor
- Dietitians Association of Australia Tel. 1800 812 942

Things to remember

- Overweight and obesity are preventable diseases. To prevent them, we need to choose healthier, lower-energy foods and be more physically active.
- Rates of overweight and obesity are rising rapidly. This has a major impact on health and healthcare costs.
- Everyone can and should seek changes to their lifestyle to help them stay a healthy weight.

This page has been produced in consultation with and approved by:

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