

The **WEIGHT** of your Health

A guide to health implications for
overweight or obese individuals



Royal College of Surgeons in Ireland

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What is obesity?

Obesity is basically carrying too much fat on your body for someone of your height. This is particularly important if the fat is around your upper body, chest and waist, because it can lead to many health risks, including heart disease and diabetes. Obesity has become a global problem and is the fastest growing medical condition in recent times.

How does obesity occur?

- The food we eat gives us energy, in the form of calories, which allows our bodies to function properly from day to day.
- The energy we take in must be equal to the energy we use, otherwise we put on weight.
- The excess calories not used up – through our daily activities and exercise – are stored as fat by the body.
- To avoid excess fat storage in the body, the right balance needs to be achieved between energy input and output – in other words, the calories we take in as food must equal those we expend in exercise and other activities.

How common is obesity?

- The World Health Organization predicts that, by 2015, over 700 million adults will be obese worldwide.
- In Ireland in 2007 (the latest figures available in the nationwide SLÁN 2007 survey), approximately 2 out of 3 adults were at an unhealthy weight (either overweight or obese) and 1 out of 4 adults was obese (almost 25% of the population).
- Obesity results in some 2,000 premature deaths in Ireland every year.
- Obesity costs the Irish State an estimated €4 billion per year in health-related bills.



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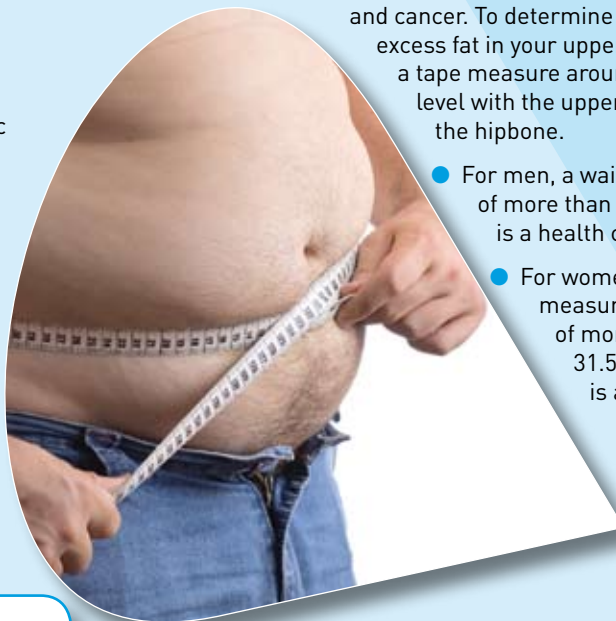
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How is obesity measured?

Obesity can be measured in two ways: by body mass index (BMI) and by waist circumference.

● Body Mass Index (BMI)

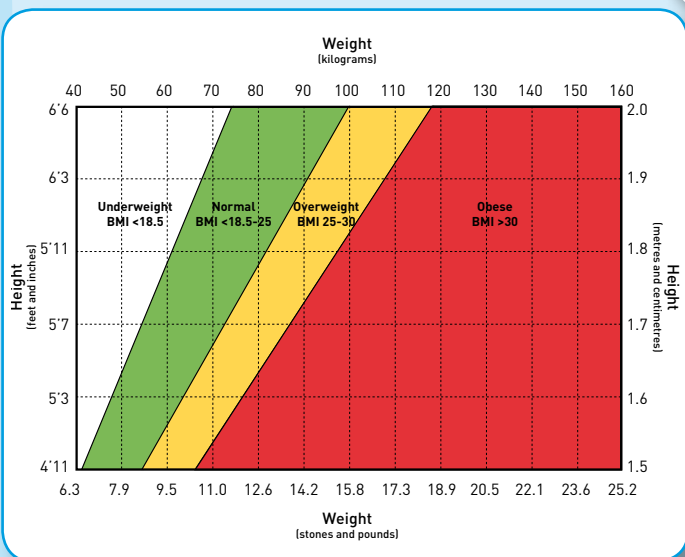
Body Mass Index (BMI) is calculated by dividing your weight by your height. An easier way to find out your BMI is to use the chart below, which is given in metric (kilograms for weight and meters for height) and imperial (stones/pounds for weight and feet/inches for height) measurements, depending on which you use. As an example, say you are 5ft 7in tall and weigh 15 stone (95kg), see where the two lines intersect and the coloured area will tell you your state of weight. In this example, the person is 'obese'. Say you are 5ft 11in tall and weight 14 stone (89kg), you are in the 'overweight' area. But say you are 5ft 7in tall and weigh 10 stone (63.5kg), you are in the 'normal' or healthy weight range.



● Waist circumference

The circumference of your waist is another important way of measuring your weight. Some people, particularly men, may have excess fat deposits in the upper body, around the chest, stomach and waist areas. This carries increased risks of heart disease, diabetes and cancer. To determine if you have excess fat in your upper body, place a tape measure around your waist, level with the uppermost part of the hipbone.

- For men, a waist measurement of more than 37 inches (94cm) is a health concern.
- For women, a waist measurement of more than 31.5 inches (80cm) is a health concern.



Obesity and life expectancy

Being obese reduces life expectancy. The hard fact is that the longer the time a person is obese, the shorter their life. Measured in years, we find:

- For a man aged 40 who is obese and does not smoke, life is shortened by 5.8 years. If he smokes, 6.7 years are cut off his life.
- For a woman aged 40 who is obese and does not smoke, life is shortened by 7.1 years. If she smokes, 7.2 years are cut off her life.

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Obesity and illness

Excess fat deposits, particularly in the upper body (around the chest, stomach and waist), release chemicals into the body that damage our health and bring about illness. Some examples are:

Medical field	Condition	Possible consequence
Heart	High blood pressure High cholesterol Angina	Heart attack Stroke Blockage in blood vessels Severe chest pain
Hormones	Diabetes Mellitus Infertility Menstrual problems	Kidney failure Inability to conceive Irregular or absent periods
Respiratory	Obstructive sleep apnoea Asthma	Day-time sleepiness Fatigue Shortness of breath
Brain	Stroke Headache Depression	Disturbed brain function Pain Fatigue Tiredness Inability to be happy
Cancer	Stomach Liver Kidneys	Multiple organ failure
Muscles and Joints	Osteoarthritis Back pain	Painful to move around
Stomach and Gut	Gallstones Reflux disease	Extreme pain in upper chest Heartburn Indigestion

WHAT TO DO? YOUR OPTIONS ...

Will losing weight help prevent or improve these illnesses?

YES, weight loss can improve health significantly. When more than 50% of excess weight is lost, there is a reduction in death –

- from heart disease by 56%
- from diabetes by 92%
- from cancer by 60%



What is the first step?

The first step is to find out whether or not you are obese or overweight. Calculating your own BMI (*see chart on page 2*) and measuring your waist circumference is quick and easy. Weight loss can be difficult and will take time, but with some will-power and effort you can improve your health.

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What are the next steps?

Healthy eating

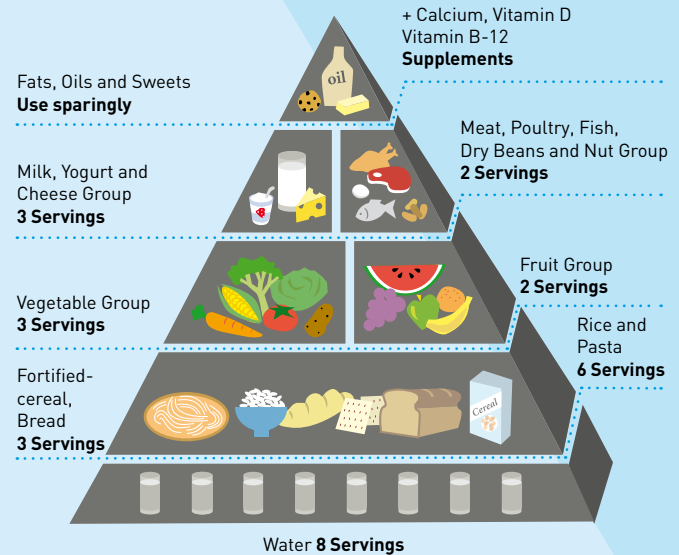
Healthy eating is the best way to help you reduce weight. It does not have to be a chore – it's not about depriving yourself of all the foods you enjoy, but rather of having them in the correct balance. Here are a few simple tips:

- **foods rich in fibre** – like brown bread, cereals, pasta, potatoes and rice – should be eaten at every meal.
- **skipping meals to lose weight is not advisable** – you only end up snacking more, eating fattening foods like sweets, biscuits and crisps.
- **foods high in fats and sugar** – like burgers, chips, pizza, butter, chocolate, cakes, soft drinks – should be eaten sparingly because they have a lot of calories and if you don't use them up, you will put on fat. *'Sparingly' means less than 3 servings a day.*
- **reducing your portion sizes** is also important for weight loss. Do it gradually and soon you won't even notice.
- **beer, wine, spirits** – all alcohol contains lots of calories and should therefore be consumed in moderation.

A quick and easy way to balance your eating habits *and* get the right nutritional foods in your daily diet is to follow the **Food Pyramid** opposite. (This has been produced by the Department of Health and Children, and is based on international dietary research.) It shows the **recommended number of daily servings of different types of food for an adult in order to have a balanced diet**. And not just food – don't forget the water, it's important to wash it all down!



Food Pyramid



Physical activity and exercise

The food we eat contains calories, which give us energy. So as not to put on weight, we need to burn up those calories with physical activity – exercising our muscles uses large amounts of energy and gets rid of excess fat.

The official guideline for weight loss is 30-45 minutes a day of physical activity on most days of the week, aiming to increase this to 60 minutes a day over time. You don't have to do all your exercise in one session – it can be divided into 10 or 15-minute blocks, spread over the day.

Before you start or change an exercise programme or routine, a thorough medical history and evaluation via your GP is recommended to ensure safety and to identify any limitations you may have on certain exercise movements, such as hips or knees. Certain types of exercise are not recommended for people with heart or orthopaedic (bone) conditions.

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You don't need to join an expensive gym to take exercise. There are many day-to-day activities that can help you lose weight, as long as they are combined with healthy eating. Exercise can come in the form of:

- simple household chores, like Hoovering the house or mowing the grass;
- walking to the shops or exercising your dog (or someone else's);
- walking to work, getting off the train or bus one stop early, walking during your lunch break, going to the toilet furthest from your desk;
- when on holiday, swim or walk in the water, or simply dig in the sand to build a sandcastle.



MEDICAL OPTIONS

Dietitian

In some cases, it might be beneficial to make an appointment with a dietitian, who can help you construct a personalised eating plan.

Medication

If diet and exercise have not been effective in losing weight, then other approaches are available. Medication can help with weight loss and this should be discussed with your GP. However, it is important to note that medication will only work in conjunction with a healthy diet and regular exercise.

Surgery

Weight loss surgery is regarded as a very last resort in the treatment for obesity, when diet, exercise and medication have not worked. Like any form of surgery, it carries its own set of risks. There are three main types of surgery:

- **Gastric banding:** This involves reducing the volume of the stomach so that you get the feeling of being full with a smaller quantity of food. The result is that you eat less and this reduces calorie intake, thus leading to a reduction in weight. Gastric banding is reversible.
- **Gastric bypass surgery:** This involves shortening the bowel. The food we eat first goes to the stomach and then on to the bowel, where nutrients are extracted. If the bowel is shortened, then it leaves less area for nutrients to be absorbed and thus less weight is gained.
- **Liposuction:** This involves an operation to physically remove fat from various parts of the body. It is not a weight loss method and weight will be regained if diet and exercise are not controlled.

Some useful websites for further information on obesity:

Irish Nutrition and Dietetic Institute, www.indi.ie

World Health Organization, www.who.int/en

Weightwatchers, www.weightwatchers.ie

Obesity Ireland, www.obesityireland.ie

Change for life, www.changeforlife.ie

Operation Transformation, www.rte.ie/ot



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