



# Let's Talk



## Diet, Diabetes, Obesity

### Background Information

#### Diabetes

Diabetes mellitus is a condition in which the amount of glucose (sugar) in the blood is too high because the body cannot use it properly.

There are 2 main types of diabetes:

- **Type 1 diabetes** - develops if the body cannot produce insulin, the hormone needed to enable glucose to enter the body's cells.
- **Type 2 diabetes** - develops when the body can still make some insulin but not enough, or when the insulin produced does not work properly.

Nobody understands why the cells that produce insulin are damaged in Type 1 diabetes. You are at risk of developing Type 2 diabetes if you are overweight, have a close family member with the condition, or you are of Afro-Caribbean or South Asian ethnicity. Previously, only older people developed Type 2 diabetes; however, now more children are being diagnosed with the condition.

- Approaching 400 million people worldwide have diabetes.
- Diabetes is predicted to become the seventh leading cause of death in the world by the year 2030 (Total deaths from diabetes are projected to rise by more than 50% in the next 10 years).
- By 2035 it is estimated that nearly 20% of the NHS budget will go on treating the disease - this is some £500 per second.
- Type 2 diabetes reduces life expectancy on average by up to 10 years.
- Controlling blood glucose levels is only one part of the problem for patients with diabetes - it is a complex metabolic disorder requiring early diagnosis and a variety of treatments and changes in lifestyle to avoid serious health problems.

#### More detailed information can be found at:

<http://www.who.int/mediacentre/factsheets/fs312/en/index.html>  
<http://www.diabetes.co.uk/nhs/>  
<http://www.diabetes.org.uk/>

#### Obesity

- People are said to be obese if they have a BMI (body mass index) over 30.
- In the UK around 1/4 of adults are obese - the figure is highest in Scotland where it is predicted that by 2030 obesity rates could reach 40%.
- Around 30% of children in the UK are overweight or obese.
- Obesity may be caused by inappropriate diet, sedentary life style, and genetic factors.
- Chronic health problems linked to obesity include: heart disease; high blood pressure; osteoarthritis; and Type 2 diabetes.



## Diet, Diabetes, Obesity & Lifestyle

- Children in Britain eat on average only 2 portions of fruit and vegetables per day, rather than the recommended 5.
- 4-18 year olds eat higher than recommended amounts of saturated fat and sugar.
- Portion sizes are increasing, particularly of 'energy dense' snacks and fast foods.
- Schoolchildren spend about £600 million a year on snacks on the way to and from school in the UK.
- Around 50% of children have less than the one hour recommended physical activity per day.

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## Glossary

- **BMI (body mass index)** - your weight in kg divided by (your height in metres x your height in metres). A healthy BMI is between 18.5 and 24.9; greater than 30 is obese, between 25 and 29.9 is overweight.
- **Insulin** - The hormone that helps the cells of the body to use glucose. It is produced by cells in the pancreas. Insulin cannot be replaced by mouth as it is destroyed by the stomach juices; people with Type 1 diabetes, and those with Type 2 diabetes that cannot be helped by tablets have 2-4 injections a day.
- **Leptin** - A signalling molecule released into the blood, where it travels to the brain causing a decrease in appetite through acting on specific nerve centres in the brain. The more fat in the body, the more leptin is produced. Some people may not respond to leptin circulating in their blood.
- **Pancreas** - A gland near the stomach that produces insulin.
- **Risk factor** - A characteristic that increases your chance of getting a particular disease.
- **Saturated fat** - Fat that occurs in living matter such as animals and plants is used as food, and contains different amounts of saturated and unsaturated fats (the difference being in their chemical structure). Saturated fats occur in dairy products (cream, cheese, butter), chocolate, meat, and many processed meals. A diet high in saturated fat increases the chances of suffering heart disease and stroke.

