# *Obesity and health*

{Note: this is not a serious medical document and is purely for training purposes}

**Overview**

Adults with obesity are more likely to have certain health problems than adults who are not obese. These problems include the following.

**Heart disease and cardiovascular problems**

Keeping to a healthy weight and body shape can help protect you against diabetes and high blood pressure, as well as lower your cholesterol. In England, around 67 per cent of men and 60 per cent of women are overweight or obese.

There is little difference in the number of men who are overweight or obese in each region of England. The highest number was found in the South West and North West and the lowest in London. The number of women who are overweight or obese is lower than the number of men, the highest number is in East and West Midlands and the lowest in London.

Heart disease, including coronary artery disease, heart attack, heart failure, angina, and an abnormal heartbeat.

**Symptoms**

High blood pressure. High blood pressure in obese men may in turn increase the risk of kidney cancer.4

High levels of cholesterol and triglycerides in the blood, as well as lower levels of "good" HDL cholesterol.

Stroke.

**Diabetes**

People who are obese are more likely to develop insulin resistance, which can lead to type 2 diabetes.3 One study has noted that men and women who have a body mass index (BMI) over 35 are approximately 20 times more likely to develop diabetes over a 10-year period than people with a normal weight (a BMI of 18.5 to 24.9).5

The risk of type 2 diabetes increases as BMI increases. People who have a large percentage of body fat in the abdominal area—greater than 40 in. (102 cm) in men and greater than 35 in. (89 cm) in women—are at increased risk for type 2 diabetes, even if their BMIs are within the normal range. Weight gain of more than 17.5 lb (7.9 kg) after age 21 in men or 22 lb (10 kg) after age 18 in women further increases the risk for type 2 diabetes.8

**Cancer**

People who are obese may be at greater risk for different types of cancer. The fat tissues in overweight people produce more hormones and growth factors than those in people of a healthy weight. High levels of some of these hormones, including oestrogen and insulin, can increase the risk of certain cancers.

**Digestive problems**

People who are obese may have more digestive problems. Science now reveals that the foreign contents within your digestive tract play a dramatic role in your energy level, metabolic function, body weight, and cardiovascular health.

While it is not the only causative factor involved in obesity and the metabolic syndrome it is a significant contributing factor for virtually any overweight person – especially someone who has difficulty losing weight and keeping it off.

Women who are obese have twice the risk of developing gallstones as women of normal weight, and women who are extremely obese (a BMI over 45) have 7 times the risk.

A few studies report that people who are obese and who develop pancreatitis have worse outcomes than people of normal weight.

Obesity is associated with liver problems such as an enlarged liver (hepatomegaly), a fatty liver (steatosis), or cirrhosis.

Symptoms of gastroesophageal reflux disease (GERD) are more common in people who are obese than in people of normal weight.

**Breathing problems**

People who are obese may have difficulty breathing. Obesity places a significant load on the respiratory system, affecting lung volumes, respiratory muscle function, work of breathing, and ventilatory control. Despite this, most morbidly obese individuals maintain eucapnia. However, a subgroup of morbidly obese individuals will develop chronic daytime hypercapnia, described as the obesity hypoventilation syndrome (OHS).

They are more likely to have sleep apnea. Although about 1% to 4% of all people have breathing problems while sleeping, about 24% of overweight men and 9% of overweight women do.6

Obesity is associated with a higher prevalence of asthma.3

People who are obese tend to take smaller or shallower breaths (Pickwickian syndrome). These small, gasping breaths may not get as much oxygen into the blood as needed, leaving them always tired. Pickwickian syndrome can eventually lead to heart problems.

**Arthritis**

People who are obese have a greater risk of developing arthritis.

Extra weight puts more stress on the joints than normal, especially in the legs and lower back.

For every 2 lb (0.9 kg) increase in weight, the risk of developing arthritis increases 9% to 13%.3

**Social difficulties**

Why were parents giving their kids burgers through the school gates when the chef Jamie Oliver tried to offer healthy food?

The problem is that we have two groups of parents. One group, often older professionals, who send their babies to every class going. Some toddlers are busier than I am with swimming, baby yoga and even soccer tots. These parents will do everything possible to give their children a healthy start.

But there is another group, usually younger and often single, who do not have the money or the confidence to give their children a similar start. Often they do not know how to look after a baby.

They do care and do worry about their child but may not have the support and understanding.

How can we ensure the children from poorer backgrounds have an equally good start in life?

**Sydney Study**

In Sydney a group of researchers tried to find out whether offering help to new parents from deprived backgrounds could make a difference. In the Healthy Beginnings programme they offered eight home visits from specially trained nurses, one during pregnancy, and seven throughout the first two years.

They recruited 667 first time mothers from socially and economically deprived areas.

The nurses encouraged breast feeding and when to start solids as well as encouraging active play and sensible eating for all the family.

They used slogans such as 'breast is best', 'no solids for me for six months', 'I eat a variety of fruit and vegetables every day', 'Only water in my cup', and 'I am part of an active family'.

The results were compared with other families who were only given the usual support from community nurses and doctors.

Three quarters of the mothers completed the programme. This statistic alone is important. When given a chance most mums from deprived backgrounds will take any help offered.

The weight of the children in the Healthy Beginnings group was lower than in the children not on the scheme. There was less obesity. The number of children being given at least one serving of vegetables a day increased and the number watching TV for more than an hour a day reduced significantly.

In other words, intensive home visiting from specially trained nurses works. The same programme might also help second or third time parents. Could it be extended to all families? Should we introduce the scheme in the UK?

At a time of cutbacks a programme to offer a home visit during pregnancy and seven home visits in the first two years of life from a specialised nurse would be expensive.

The UK Healthy Child programme consists of three health reviews in the first two years.

Currently parents are surrounded by books telling them how to bring up their children, some are good, some rubbish.

Table

Height Acceptable Weight Range (pounds)

A If aged 19-34 If aged 35+

5 feet 0" 97-128 108-138

5 feet 1" 101-132 111-143

5 feet 2" 104-137 115-148

5 feet 3" 107-141 119-152

5 feet 4" 111-146 122-157

5 feet 5" 114-150 126-162

5 feet 6" 118-155 130-167

5 feet 7" 121-160 134-172

5 feet 8" 125-164 1 38-178

5 feet 9" 129-169 142-183

5 feet 10" 132-174 146-188

5 feet 11" 136-179 151-194

6 feet 0" 140-184 155-199