

Obesity - the time bomb waiting to explode

Charlie Powell outlines the grim facts behind increasing levels of obesity and explains why protecting our children must become a priority

Global Problem

A staggering 1.1 billion people in the world are now overweight and 300 million of them are clinically obese, according to the World Health Organisation (WHO) (1). In North America, the rates are epic, with almost a third of adults (31 per cent) now obese and 61 per cent experiencing weight-related health problems (2). For the first time in human history, the number of overweight people in the world rivals the number of underweight people.

In the UK, it's a similar picture with adult obesity having trebled in the last 20 years. In England, around a fifth of men (21 per cent) are obese and for women the figure is nearly a quarter (24 per cent). Two thirds of men and over a half of women are now either overweight or obese - an incredible 24 million people in total (3). The cause is not some fat gene that has suddenly been switched on but because people eat too much of the wrong foods!

Obesity provides the gateway to disease, placing people at a higher risk of developing killers such as diabetes, high blood pressure (hypertension), heart disease, colon cancer and stroke (4). It promotes debilitating conditions such as angina, gall bladder diseases, osteoarthritis and back pain and can restrict mobility and cause both social and psychological problems (5). No wonder the Chief Medical Officer called it a health 'time bomb' in his 2002 annual report (3).

What is Obesity?

Obesity is normally calculated by taking a person's weight in kilograms and dividing twice by their height in metres. The result is called the Body Mass Index (BMI) and between 18.5kg/m² and 24.9kg/m² is acceptable, between 25kg/m² and 29.9kg/m² is overweight and 30kg/m² or more signifies obesity (1).

Apple-shaped people, who store excess fat around their abdomen, are more at risk than pear-shaped people, who store it around their buttocks and thighs. Apple-shaped people have a high waist-to-hip ratio (WHR) and this is linked to coronary heart disease, stroke, diabetes, breast cancer (after menopause) and gallstones (6).

Veggies Leaner

Meat-eaters are twice as likely to be obese as vegetarians and nearly four times as obese as vegans, according to a 2003 paper published in the journal *Public Health Nutrition* (7). Other research has come to similar conclusions (8, 9, 10, 11). The prestigious

American Dietetic Association gives the reasons as being vegetarians' lower protein, fat and animal (mostly saturated) fat intake, and their higher fibre and vegetable consumption (12).

Weak Humans

Humans evolved as hunter-gatherers and are still best-suited to what they ate 10,000 years ago. As Table 1 shows, diets consisted of seasonal foods containing relatively low amounts of meat, saturated fat and energy. Obesity results from eating too much food with a high calorie content, so that we take in more energy than our bodies can use.

This unhealthy energy balance has come about through a combination of over-reliance on cars and inactive pastimes such as TV viewing, combined with an abundance of cheap, easy to buy and vigorously marketed fatty and sugary, highly-calorific foods.

Our meat-based, fast-food culture is based on ever-larger portions and eating and snacking on fatty foods such as burgers and chips. Eaten regularly, this type of food promotes weight gain and obesity by causing people unintentionally to eat more calories than their bodies need, according to the journal *Obesity Reviews* (13). Humans are innately weak, it says, when it comes to regulating how much they eat.

We are still programmed to eat a low-energy diet - the kind of diet eaten in parts of the developing world where obesity is not a problem - according to Professor Andrew Prentice, Head of the Medical Research Council International Nutrition



Table 1: Hunter-gatherer v modern day urban lifestyles

Hunter-gatherers	Modern city dweller
Active	Sedentary
Diet limited by seasonal changes, fluctuating energy intake	Abundant energy intake all year round
Low saturated fat intake	High saturated fat intake
Low intake of meat	High meat intake
No milk consumption	High consumption of dairy products
High fibre diet	Low fibre diet
Low sugar intake	High sugar intake
Salt restriction	High salt diet
No alcohol	High alcohol intake

Group. Our bodies, he says, were never designed to cope with the calorie-dense foods we eat in the West today (14).

Children at Risk

In the 10 years from 1984 to 1994, there was a 140 per cent increase in obesity in primary school children, according to the *British Medical Journal* (15), which has also described the rapidly rising levels as 'epidemic' (16). In 2001, 8.5 per cent of 6 year olds and 15 per cent of 15 year olds were obese (3). Even these figures are an underestimate, according to researchers from the Institute of Child Health in London (17). All recent studies, no matter which method is used to calculate obesity, have shown that overweight and obesity in children are increasing at an alarming rate and are likely to result in future increases in adult obesity and its associated ill health.

Even mild obesity in childhood is related to higher levels of blood pressure, insulin and cholesterol and these can track into adulthood (18, 19). Overweight children as young as seven have been shown to be at increased risk of cardiovascular disease (20). Before children reach their teens, a combination of obesity and high saturated fat intake can result in the first signs of hardening of the arteries (atherosclerosis) (21).

In 2002, the first cases of 'adult-onset' (type II) diabetes were reported in the UK in obese children. We may be mirroring the US where more than 30 per cent of all new adult-onset diabetes occurs in obese children or adolescents. Overweight and obesity are notoriously difficult to correct once they've started and are likely to persist into adulthood (22), when years of carrying excess weight increases the risk of coronary heart disease, diabetes, some cancers and numerous other health disorders (23, 24). It is for this reason that Sir John Krebs, Chair of the Food Standards Agency (FSA), has warned that children growing up today will have a shorter life expectancy than their parents (25).

Junk Food Promos

The culture created for children by the food industry is unhealthy and unbalanced. Foods specifically marketed at them are invariably grossly fatty, sugary and salty and trade on their innate tastes. Whichever way they turn, children are confronted by promotions for these unhealthy foods - on the TV, radio and internet, in text messages to their mobile phones, at the cinema, in their comics and magazines, on food packaging and even in so-called 'educational' teaching materials. A comprehensive review of research published by the FSA concludes that advertising to children does have an effect on their food preferences, purchase behaviour and consumption (26).

Some of the worst culprits are McDonald's, Kentucky Fried Chicken and Burger King, the marketing and promotional activities of which, according to research recently published by the Food Commission, have posed an increasing threat to children's health in the last decade (27). McDonald's is the UK's biggest advertiser, with a gigantic budget of £42 million (2002). Kentucky Fried Chicken and Burger King spent £15.5 million and £11.1 million on advertising in the same year. This massive spend not only influences children but also encourages

parents to take them out for a meal, reinforcing the idea that junk food is normal and desirable.

Earlier this year, Cadbury's launched a token-collection scheme encouraging children to collect chocolate wrappers and exchange them for school sports equipment. If they had bought all 160 million available tokens, they would have consumed nearly two million grams of fat and 36 billion calories, calculates the Food Commission (28). Walkers' crisps Free Books for Schools was a similar nutritionally damaging promotion (29).

Advertising targeted at children portrays unhealthy foods as positive and attractive. The more of them they eat, the more that nutritious and protective foods, such as fruit and vegetables, are squeezed out of their diet. Along with 90 other national organisations, the VVF has joined the campaign calling for a ban on the promotion of unhealthy foods to children (30).

Safeguarding Children

'Obesity is a health time bomb with the potential to explode over the next three decades into thousands of extra cases of heart disease, certain cancers, arthritis and many other problems'. That's a pretty dramatic statement and it was made by Sir Liam Donaldson, Chief Medical Officer, in his 2002 Annual Report (3).

The habits children learn in their first few years of life stay with them. If they learn to eat healthily and exercise regularly before leaving primary school, they will reduce their risks of disease as they get older. But the opposite seems to be happening.

The 2000 National Diet and Nutrition Survey found that 92 per cent of children have intakes of saturated fat that even exceed the maximum recommended levels for adults (31). For added sugar it is 83 per cent and more than half consume too much salt. It's no coincidence that processed foods tend to contain too much of all these elements.

Encouraging children to eat a healthy diet is the best prevention against degenerative diseases and is the basis of VVF's Safeguarding Children's Health report. It explains that plant-based diets based on whole foods and including plenty of fruit and vegetables actually promote good health because of the vital nutrients and dietary fibre they contain and because they lack the excess fat and cholesterol found in meat and processed meat products. There's no mystery about the way forward. It's not knowledge that's lacking but will.

Copies of 'Safeguarding Children's Health: Defeating Disease Through Vegetarian/Vegan Diets' cost £10 and are available from VVF by calling 0117 970 5190. A copy of all the references for this article is available on request.

