

# What caused the obesity epidemic?

ZOË HARCOMBE

**In an attempt to reduce the incidence of coronary heart disease, dietary 'experts' advised us to avoid eating fat generally, saturated fat specifically; this led to an unavoidable increase in carbohydrate intake. Zoë Harcombe maintains that this change in dietary advice is the single greatest cause of the recent obesity epidemic.**

In 1972, 2.7% of UK men and women were obese. By 1999, 22.6% of men and 25.8% of women were obese.<sup>1</sup> Those who believe the calorie theory will tell you that this is a result of eating too much and doing too little. Humans evolved from *Australopithecus afarensis* (Lucy) an estimated 3.5 million years ago. We managed to stay slim for 3.5 million years and then it took the blink of an eye in evolution terms to create an obesity epidemic.

## CHANGE IN DIETARY ADVICE

To understand the obesity epidemic we need to understand what changed. The one critical factor at the start of the growth in obesity rates was a change in dietary advice.<sup>2,3</sup> We did a complete U-turn in our diet advice from 'farinaceous and vegetable foods are fattening, and saccharine matters are especially so'<sup>4</sup> to 'base your meals on starchy foods'.



*Dietary advice to avoid fat has contributed to the current obesity epidemic (© Ian Hooton/ Science Photo Library)*

Why did we change our dietary advice? We decided that dietary fat generally and saturated fat specifically causes coronary heart disease (CHD), so we advised people to have no more than 30% of calories as fat and no more than 10% of calories as saturated fat. An increase in carbohydrate intake was the unavoidable consequence of the demonisation of fat. There are only three macronutrients. Protein is in everything (except sucrose and oils) and so less fat means more carbohydrate.

## LACK OF EVIDENCE FOR CHANGE IN ADVICE

However, the evidence behind the introduced dietary guidelines was not robust. The epidemiological 'evidence' came from the seven (carefully chosen) countries study.<sup>5</sup> Ancel Keys had spent the 1950s

*Zoë Harcombe, BA, MA(Cantab), PhD student, Institute of Clinical Exercise and Health Science, University of the West of Scotland*

trying to prove that cholesterol consumption was the cause of CHD. He failed and he acknowledged this.<sup>6</sup> He then tried to prove that saturated fat consumption causes heart disease, despite this having no logic, not least because saturated fat and cholesterol (and unsaturated fat) are found in the same foods. The seven countries study suggested that heart disease tended to be related to cholesterol levels, which tended to be related to saturated fat intake and so (that must mean) heart disease tended to be related to saturated fat (although cholesterol intake was not directly related *per se*). Association was never proven and causation was never alleged.

The evidence from randomised control trials available at the time that Senator McGovern was looking for the first *Dietary goals for the United States* totalled just five studies, involving 2000 men.<sup>7-11</sup> No women had been studied. Only one study included healthy men – the rest had already had a heart attack.<sup>12</sup> There was no significant difference in all-cause deaths or CHD deaths between the dietary change groups and the control groups. And yet dietary advice was changed for 220 million Americans and 56 million UK citizens.<sup>13</sup>

Had we changed our advice without consequence, we would have been fortunate. However, we have paid an enormous price for this change; with a tenfold increase in obesity. Furthermore, more people are continuing to become obese and the obese are continuing to become more obese; we have not yet had the first generation born to our most obese generation. It is not unreasonable to say that on the back of one man's study, first adopted by one American governor and then the world, we have an obesity epidemic.

The ultimate irony is that Keys showed a relationship between carbohydrate, sucrose and CHD. 'The fact that the incidence of

coronary heart disease was significantly correlated with the average percentage of calories from sucrose in the diets is explained by the inter-correlation of sucrose with saturated fat.'<sup>14</sup> Decades later we have not corrected this fundamental mistake and we still list biscuits, cakes and pastries – carbohydrates first and invariably *unsaturated* fat second – as saturated fats. So, we changed our advice to try to alleviate heart disease and, as a result of this catastrophic confusion over macronutrients, we are consuming more of the foods that should have been clearly identified as the culprits in the first place.<sup>15</sup>

#### NUTRITION VERSUS PROFIT

We have forgotten that we eat for nourishment. We have a vital need for nutrition and we have lost this basic value in our current dietary advice. If we had stayed true to the principle of why we eat, the most nutritious foods would be evidential in any analysis of essential fats, essential amino acids (protein), vitamins and minerals (there is no essential carbohydrate). They are the liver, sardines, milk, eggs and greens favoured by our elders and not the fortified cereals and margarines favoured by conglomerates and, reprehensibly, far too many dietary advisors.

We have slandered and libelled the most nutritious macronutrient – fat – and we have promoted and praised the least nutritious macronutrient – carbohydrate. We do not need to look far to understand why. The most nutritious foods on the planet are the fat/proteins provided by nature. The most profitable foods on the planet are the carbohydrates provided by food manufacturers.

As the demonisation of real food has gathered pace, fledgling and long-standing food and drink companies have become multibillion dollar empires. An immense and profitable industry has grown on the back of the low fat, high carbohydrate

advice that we invented. Human beings have become high fat and low health in parallel.

When people talk about 'the obesogenic environment', they do so as if this were some inexplicable phenomenon that crept up on the world and made everyone fat. We created this obesogenic environment; it did not happen to us. We told people to avoid real food and to eat processed food. We passed legislation to introduce trans fats and sweeteners into our food chain. We allowed our children to be given toys, cartoon characters and junk food by 'strangers'.<sup>16</sup> We have facilitated the comprehensive infiltration of the food and drink industry into our dietary advice – nowhere more so than in the fattest nation on earth, America, where we have gone as far as legislating the relationship, so that only the food-industry-sponsored American Dietetic Association can advise the unsuspecting public. We welcome food and drink industry funds turning global sporting events into advertising arenas for their products. We continue to revere sports and pop stars, who are paid millions of dollars to endorse products that they likely do not consume themselves.

Proposed solutions are that we staple, section and sever the stomachs of our fellow humans. My suggestion that we should return to eating real food – eating the way that we did, before we needed to invent such drastic procedures – is instead seen as radical.

As Barry Groves observed: 'Man is the only chronically sick animal on the planet'.<sup>17</sup> That is because man is the only species clever enough to make his own food and the only one stupid enough to eat it.

**Declaration of interests:** none declared.

#### REFERENCES

1. Wadsworth M, Kuh D, Richards M, Hardy R. Cohort profile: the 1946 national birth cohort (MRC National Survey of Health

- and Development). *Int J Epidemiol* 2006;35:49–54. <https://apps.who.int/infobase/Indicators.aspx>
2. Select Committee on Nutrition and Human Needs. *Dietary goals for the United States*, 1st edn. Washington: US Government Printing Office, 1977. [http://zerodisease.com/archive/Dietary\\_Goals\\_For\\_The\\_United\\_States.pdf](http://zerodisease.com/archive/Dietary_Goals_For_The_United_States.pdf)
  3. National Advisory Committee on Nutritional Education (NACNE). *A discussion paper on proposals for nutritional guidelines for health education in Britain*. London: The Health Education Council, 1983.
  4. Tanner TH. *The practice of medicine*. Philadelphia: Lindsay & Blakiston, 1869.
  5. Keys A. Coronary heart disease in seven countries I. The study program and objectives. *Circulation* 1970;41:1–211.
  6. Keys A, Anderson JT, Mickelsen O, *et al*. Diet and serum cholesterol in man: lack of effect of dietary cholesterol. *J Nutrition* 1956;59:39–56.
  7. Rose GA, Thomson WB, Williams RT. Corn oil in treatment of ischaemic heart disease. *BMJ* 1965;1:1531–3.
  8. Research Committee. Low-fat diet in myocardial infarction: a controlled trial. *Lancet* 1965;2: 501–4.
  9. Medical Research Council. Controlled trial of soya-bean oil in myocardial infarction: report of a research committee to the Medical Research Council. *Lancet* 1968;292:693–700.
  10. Dayton S, Pearce M, Goldman H, *et al*. Controlled trial of a diet high in unsaturated fat for prevention of atherosclerotic complications. *Lancet* 1968;292:1060–2.
  11. Leren P. The Oslo diet-heart study. *Circulation* 1970;42:935–42.
  12. Dayton S, Pearce ML, Hashimoto S, *et al*. A controlled clinical trial of a diet high in unsaturated fat in preventing complications of atherosclerosis. *Circulation* 1969;40:1–63.
  13. Harcombe Z, Baker JS, Cooper SM, *et al*. Evidence from randomised controlled trials did not support the introduction of dietary fat guidelines in 1977 and 1983: a systematic review and meta-analysis. *BMJ Open* (in press).
  14. Lustig RH. The fructose epidemic. *Am J Bariatric Med* 2009;24(1).
  15. Harcombe Z, Baker J, Davies B. Food for thought: have we been giving the wrong dietary advice? *Food Nutr Sci* 2013;4:240–4.
  16. Centre for Science in the Public Interest. *CSPi to sue McDonald's if it continues using toys to market junk food to children*, June 2010. <http://www.cspinet.org/>
  17. Groves B. Presentation at the Weston A. Price Foundation conference, London, March 2010.