

The great diet delusion
by Gary Taubes
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FOR the past century, the advice to the overweight and obese has remained remarkably consistent: consume fewer calories than you expend and you will lose weight. This prescription seems eminently reasonable. The only problem is that it doesn't seem to work. Neither eating less nor moving more reverses the course of obesity in any but the rarest cases.

This contradiction has given us a catalogue of clinical literature almost mind-boggling in its internal inconsistency. "Dietary therapy remains the cornerstone of [obesity] treatment and the reduction of energy intake continues to be the basis of successful weight reduction programs," observes *The Handbook of Obesity*, a textbook edited by George Bray, Claude Bouchard and W. P. T. James, three of the most respected names in obesity research, and first published in 1998. It then goes on to acknowledge that the results of such therapy "are known to be poor and not long-lasting".

In truth, the very idea that such advice might benefit obese people borders on the nonsensical, presupposing as it does that they are either unconcerned about their weight, ignorant, or stubbornly unwilling to do anything about it. None of these notions has a shred of evidence to support it, yet health authorities still repeat their mantra: obesity is caused by overeating; eating less is the cure. Any attempt to argue otherwise is treated as quackery.

In any other discipline, the failure to demonstrate that a superficially obvious therapy actually works might persuade researchers to question the assumptions on which that therapy is based. Yet in obesity research, it is never the basic hypothesis that is questioned. Instead, the patient is blamed for a lack of moral fortitude. The existence of an obesity epidemic - and, indeed, a diabetes epidemic along with it - has not altered this situation. Rather, it has led researchers and health authorities to presume that entire nations have been ignoring their advice.

The institutionalised conviction that we get fat simply because we overeat is based on the kind of fallacious reasoning that would lead to a failing grade in a high-school logic class. The first law of thermodynamics tells us that energy is neither created nor destroyed, so the calories we consume must be either stored, expended or excreted. If we are getting fatter, we must be taking in more energy than we are giving out: we are overeating.

But this does not tell us which direction the arrow of causality is pointing. Do we get fat because we overeat, or is some regulatory or hormonal phenomenon driving us to fatten and in turn causing us to overeat? Saying that obesity is explained by overeating and/or sedentary behaviour is like saying that chronic fatigue syndrome is explained by a lack of energy. It sounds obvious; it tells us nothing.

To understand why causality is crucial, take the analogy used by German and Austrian clinicians prior to the second world war when they discussed the causes of obesity, which they considered very obviously a hormonal and genetic disorder. When children go through growth spurts, they are likely to eat voraciously - to overeat. Indeed, they have to do this to fuel their growing bodies. They do not grow because they overeat; they overeat because they are growing. The growth is induced by hormones, specifically growth hormone.

Just as you can starve a fat person and induce them to lose weight, you can starve a child and prevent them from growing. Neither implies that overeating was the root cause of their getting fat or growing bigger.

There is considerable evidence that the obesity epidemic is caused by a hormonal phenomenon, specifically by the consumption of refined carbohydrates, starches and sugars, all of which prompt (sooner or later) excessive insulin secretion. Insulin is the primary regulator of fat storage. When insulin levels are elevated, fat accumulates in our body tissue; when they fall, fat is released and we use it for fuel. By stimulating insulin secretion, carbohydrates make us fat; by driving us to accumulate fat, they increase hunger and decrease the energy we expend in metabolism and physical activity. In short, obesity is caused not by overeating or sedentary behaviour, but by hormonal malfunctioning triggered by the consumption of particular types of carbohydrate-containing foods.

Obesity researchers, nutritionists and health authorities have refused to contemplate this scenario, partly because it would imply that diet-book doctors advocating carbohydrate-restricted diets - Robert Atkins et al - were right all along. Instead, these alleged experts and guardians of our health have wasted a good part of a century on research based on a high-school misconception, watching their compatriots grow ever fatter while blaming everyone but themselves. In the process, they have created a field of clinical medicine that functions more like a religion than a science. It is time to put science back in charge.