

THE NEW OBESITY CAMPAIGNS HAVE IT ALL WRONG

The government has spent hundreds of millions telling Americans to exercise more and eat less. But the country is getting heavier every year. It's time to change the way we think about fat.

BY GARY TAUBES

MOST OF my favorite factoids about obesity are historical ones, and they don't make it into the new, four-part HBO documentary on the subject, *The Weight of the Nation*. Absent, for instance, is the fact that the very first childhood-obesity clinic in the United States was founded in the late 1930s at Columbia University by a young German physician, Hilde Bruch. As Bruch later told it, her inspiration was simple: she arrived in New York in 1934 and was "startled" by the number of fat kids she saw—"really fat ones, not only in clinics, but on the streets and subways, and in schools."

What makes Bruch's story relevant to the obesity problem today is that this was New York in the worst year of the Great Depression, an era of bread lines and soup kitchens, when 6 in 10 Americans were living in

poverty. The conventional wisdom these days—promoted by government, obesity researchers, physicians, and probably your personal trainer as well—is that we get fat because we have too much to eat and not enough reasons to be physically active. But then why were the PC- and Big Mac-deprived Depression-era kids fat? How can we blame the obesity epidemic on gluttony and sloth if we easily find epidemics of obesity throughout the past century in populations that barely had food to survive and had to work hard to earn it?

These seem like obvious questions to ask, but you won't get the answers from the anti-obesity establishment, which this month has come together to unfold a major anti-fat effort, including *The Weight of the Nation*, which begins airing

May 14 and “a nationwide community-based outreach campaign.” The project was created by a coalition among HBO and three key public-health institutions: the nonprofit Institute of Medicine, and two federal agencies, the Centers for Disease Control and Prevention and the National Institutes of Health. Indeed, it is unprecedented to have the IOM, CDC, and NIH all supporting a single television documentary, says producer John Hoffmann. The idea is to “sound the alarm” and motivate the nation to act.

At its heart is a simple “energy balance” idea: we get fat because we consume too many calories and expend too few. If we could just control our impulses—or at least control our environment, thereby removing temptation—and push ourselves to exercise, we’d be fine. This logic is everywhere you look in the official guidelines, commentary, and advice. “The same amount of energy IN and energy OUT over time = weight stays the same,” the NIH website counsels Americans, while the CDC site tells us, “Overweight and obesity result from an energy imbalance.”

The problem is, the solutions this multi-level campaign promotes are the same ones that have been used to fight obesity for a century—and they just haven’t worked. “We are struggling to figure this out,” NIH Director Francis Collins conceded to *Newsweek* last week. When I interviewed CDC obesity expert William Dietz back in 2001, he told me that his primary accomplishment had been getting childhood obesity “on the map.” “It’s now widely recognized as a major health problem in the United States,” he said then—and that was 10 years and a few million obese children ago.

There is an alternative theory, one that has also been around for decades but that the establishment has largely ignored. This theory implicates specific foods—refined sugars and grains—because of their effect on the hormone insulin, which regulates fat accumulation. If this hormonal-defect hypothesis is true, not all calories are created equal, as the conventional wisdom holds. And if it is true, the problem is not only controlling our impulses, but also changing the entire American food economy and rewriting our beliefs about what constitutes a healthy diet.

Oddly, this nutrient-hormone-fat interaction is not particularly controversial. You can find it in medical textbooks as the explanation for why our fat cells get fat.



Refined sugars and grains spur insulin creation, which leads us to accumulate fat.

But the anti-obesity establishment doesn’t take the next step: that fat fat cells lead to fat humans. In their eyes, yes, insulin regulates how much fat gets trapped in your fat cells, and the kinds of carbohydrates we eat today pretty much drive up your insulin levels. But, they conclude, while individual cells get fat that way, the reason an entire human gets fat has nothing to do with it. We’re just eating too much.

I’ve been arguing otherwise. And one reason I like this hormonal hypothesis of

obesity is that it explains the fat kids in Depression-era New York. As the extreme situation of exceedingly poor populations shows, the problem could not have been that they ate too much, because they didn’t have enough food available. The problem then—as now, across America—was the prevalence of sugars, refined flour, and starches in their diets. These are the cheapest calories, and they can be plenty tasty without a lot of preparation and preservation. And the biology suggests that they are literally fattening—they make us fat, while other foods (fats, proteins, and green leafy vegetables) don’t.

If this hypothesis is right, then the reason the anti-obesity efforts championed by the IOM, the CDC, and the NIH haven’t worked and won’t work is not because we’re not listening, and not because we just can’t say no, but because these efforts are not addressing the fundamental cause of the problem. Like trying to prevent lung cancer by getting smokers to eat less and run more, it won’t work because the intervention is wrong.

THE AUTHORITY figures in obesity and nutrition are so fixed on the simplistic calorie-balance idea that they’re willing to ignore virtually any science to hold on to it.

The first and most obvious mistake they make is embracing the notion that the only way foods can influence how fat we get is through the amount of energy—calories—they contain. The iconic example here is sugar, or rather sugars, since we’re talking about both sucrose (the white,

STARTLING STATS

The Coast Guard now assumes **the average boat passenger weighs 185 lbs**, up from the 160 lbs in place since 1960.

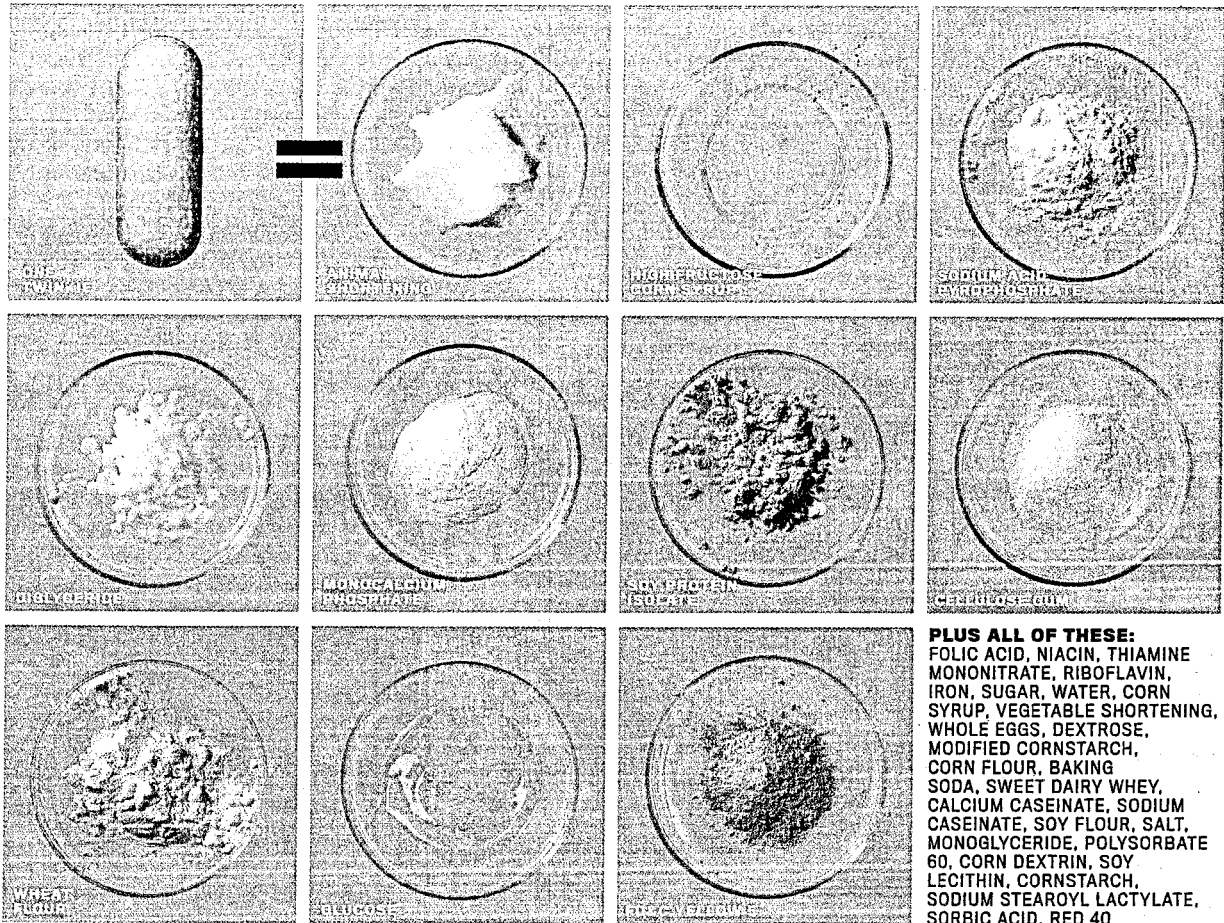
More than a quarter of all Americans ages 17-24 are unqualified for military service because of their weight.

The University of Alabama at Birmingham Hospital has **replaced wall-mounted toilets with floor models** that can hold at least 250 lbs.

About \$5 billion more is spent every year in the jet fuel needed to fly heavier Americans, compared with 1960 weights.

WHAT'S IN A TWINKIE

America may be putting on the pounds not only because of how much we eat, but also because of the specific nutrients in our national diet.



PLUS ALL OF THESE:
 FOLIC ACID, NIACIN, THIAMINE
 MONONITRATE, RIBOFLAVIN,
 IRON, SUGAR, WATER, CORN
 SYRUP, VEGETABLE SHORTENING,
 WHOLE EGGS, DEXTROSE,
 MODIFIED CORNSTARCH,
 CORN FLOUR, BAKING
 SODA, SWEET DAIRY WHEY,
 CALCIUM CASEINATE, SODIUM
 CASEINATE, SOY FLOUR, SALT,
 MONOGLYCERIDE, POLYSORBATE
 60, CORN DEXTRIN, SOY
 LECITHIN, CORNSTARCH,
 SODIUM STEAROYL LACTYLATE,
 SORBIC ACID, RED 40

granulated stuff we sprinkle on cereal) and high-fructose corn syrup. "What's the single best thing I can do for me and my family?" asks one obese mother in *The Weight of the Nation*. The answer she's given is "stop drinking sugar-sweetened beverages." But the official wisdom—that all we need know is that a calorie is a calorie—is a calorie—doesn't explain why that might be so.

Left unsaid is the fact that sucrose and high-fructose corn syrup have a unique chemical composition, a near 50-50 combination of two different carbohydrates: glucose and fructose. And while glucose is metabolized by virtually every cell in the body, the fructose (also found in fruit, but in much lower concentrations) is metabolized mostly by liver cells. From there, the chain of metabolic events has been

worked out by biochemists over 50 years: some of the fructose is converted into fat, the fat accumulates in the liver cells, which become resistant to the action of insulin, and so more insulin is secreted to compensate. The end results are elevated levels of insulin, which is the hallmark of type 2 diabetes, and the steady accumulation of fat in our fat tissue—a few tens of calories worth per day, leading to pounds per year, and obesity over the course of a few decades.

Last fall, researchers at the University of California, Davis, published three studies—two of humans, one of rhesus monkeys—confirming the deleterious effect of these sugars on metabolism and insulin levels. The message of all three studies was that sugars are unhealthy—not because people or monkeys con-

sumed too much of them, but because, well, they do things to our bodies that the other nutrients we eat simply don't do.

The second fallacy is the belief that physical activity plays a meaningful role in keeping off the pounds—an idea that the authorities just can't seem to let go of, despite all evidence to the contrary. "We don't walk, we don't bike," says University of North Carolina economist Barry Popkin in *The Weight of the Nation*. If we do exercise regularly, the logic goes, then we'll at least maintain a healthy weight (along with other health benefits), which is why the official government recommendations from the USDA are that we should all do 150 minutes each week of "moderate intensity" aerobic exercise. And if that's not enough to maintain a healthy weight or lose the excess, then,

PHOTOGRAPHS BY DWIGHT ESCHILMAN

well, we should do more.

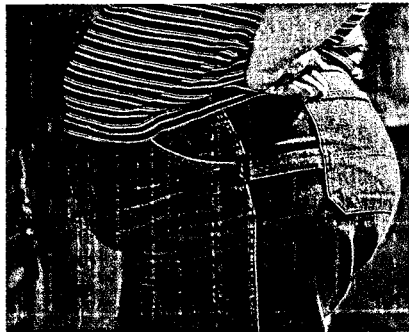
So why is the world full of obese individuals who do exercise regularly? Arkansas construction workers in *The Weight of the Nation*, for instance, do jobs that require constant lifting and running up ladders with “about 50 to 60 pounds of tools”—and an equal amount of excess fat. They’re on-camera making the point about how the combination is exhausting. “By the time the day’s over,” one tells us, “your feet are killing you; your legs are cramping. You can’t last as long as you used to.” If physical activity helps us lose weight or even just maintain it, how did these hardworking men get so fat?

There are two obvious reasons why this idea that working out makes you skinny or keeps you skinny is likely to be just wrong. One is that it takes a significant amount of exercise to burn even a modest amount of calories. Run three miles, says Cornell University researcher Brian Wansink in the documentary, and you’ll burn up roughly the amount of calories in a single candy bar. And this brings up the second reason: you’re likely to be hungrier after strenuous exercise than before and so you’re more likely to eat that candy bar’s worth of calories after than before. (When the American Heart Association and the American College of Sports Medicine jointly published physical-activity guidelines back in 2007, they described the evidence that exercise can even prevent us from growing fatter as “not particularly compelling,” which was a kind way to put it.)

Finally, the anti-obesity establishment embraces the idea that what are really missing from our diet are fresh fruits and vegetables—that these are the *sine qua non* of a healthy diet—and that meat, red meat in particular, is a likely cause of obesity. Since the mid-1970s, health agencies have waged a campaign to reduce our meat consumption, for a host of reasons: it causes colon cancer or heart disease (because of the saturated fat) and now because it supposedly makes us fat as well. The lowly cheeseburger is consistently targeted as a contributor to both obesity and diabetes.

But when David Wallinga of the Institute for Agriculture and Trade Policy tells us in *The Weight of the Nation* that the USDA has established the cause of the obesity epidemic and it’s “an increase in our calorie consumption over the last 30, 35 years,” he also tells us

where those calories come from: a quarter come from added sugars, a quarter from added fats (“most of which are from soy”), and “almost half is from refined grains, mainly corn starches, wheat, and the like.” What Wallinga doesn’t say is that the same USDA data clearly shows that red-meat consumption peaked in this country in the mid-1970s, before the obesity epidemic started. It’s been dropping ever since, consistent with a nation that has been doing exactly what health authorities have been telling it to do.



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At the moment, the government efforts to curb obesity and diabetes avoid the all-too-apparent fact, as Hilde Bruch pointed out more than half a century ago, that exhorting obese people to eat less and exercise more doesn’t work, and that this shouldn’t be an indictment of their character but of the value of the advice. By institutionalizing this advice as public-health policy, we waste enormous amounts of money and effort on programs that might make communities nicer places to live—building parks and making green markets available—but that we have little reason to believe will make anyone thinner. When I asked CDC Director Thomas Frieden about this, he pointed to two recent reports, from Massachusetts and New York, documenting small but real decreases in childhood-obesity levels. He then admitted that they had no idea why this had happened. “I’m doing everything I can do,” he said, “to assure that we rigorously monitor the efforts underway so we can try to understand what works and what doesn’t.”

If the latest research is any indication,

sugar may have been the primary problem all along. Back in the 1980s, the FDA gave sugar a free pass based on the idea that the evidence wasn’t conclusive. While the government spent hundreds of millions trying to prove that salt and saturated fat are bad for our health, it spent virtually nothing on sugar. Had it targeted sugar then, instead of waiting for an obesity and diabetes epidemic for motivation, our entire food culture and the options that go with it might have changed as they did with low-fat and low-salt foods.

So what should we eat? The latest clinical trials suggest that all of us would benefit from fewer (if any) sugars and fewer refined grains (bread, pasta) and starchy vegetables (potatoes). This was the conventional wisdom through the mid-1960s, and then we turned the grains and starches into heart-healthy diet foods and the USDA enshrined them in the base of its famous Food Guide Pyramid as the staples of our diet. That this shift coincides with the obesity epidemic is probably not a coincidence. As for those of us who are overweight, experimental trials, the gold standard of medical evidence, suggest that diets that are severely restricted in fattening carbohydrates and rich in animal products—meat, eggs, cheese—and green leafy vegetables are arguably the best approach, if not the healthiest diet to eat. Not only does weight go down when people eat like this, but heart disease and diabetes risk factors are reduced. Ethical arguments against meat-eating are always valid; health arguments against it can no longer be defended.

If *The Weight of the Nation* accomplishes anything, it’s communicating the desperation of obese Americans trying to understand their condition and, even more, of lean (or relatively lean) parents trying to cope with the obesity of their offspring. Lack of will isn’t their problem. It’s the absence of advice that might actually work. If our authorities on this subject could accept that maybe their fundamental understanding of the problem needs to be rethought, we and they might begin to make progress. Clearly the conventional wisdom has failed so far. We can hold onto it only so long. **nw**

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