

Has Science Discovered a Cure for Obesity?

[Life expectancy is falling in America](#), and the obesity epidemic is one of the causes.

We've all heard alarming stories and seen the evidence. An astonishing "two-thirds of adults," and "nearly 30% of children [are overweight or obese](#)." Obesity-related illness is [costing America](#) "\$190.2 billion or nearly 21% of annual medical spending in the United States."

Adult-onset diabetes is now so common in children that the [name of the illness was changed](#) to Type 2 diabetes. Each year, the National Institutes of Health reports, the prevalence of Type 2 diabetes is [increasing by 4.8 percent](#) among children and teens. Then there is the [astonishing prediction](#) by researchers at the Centers for Disease Control and Prevention (CDC) "that one in three children born in the United States in 2000 will likely develop type 2 diabetes sometime in their lifetime unless they get more exercise and improve their diets."

Ask most people, and they will have a theory about obesity. Some [stigmatize the obese](#) saying they lack willpower. Others believe "particular nutrients such as fats, carbs or sugars are to blame for our alarming obesity pandemic," Ellen Ruppel Shell reports in her essay, "[A New Theory of Obesity](#)," in the October 2019 *Scientific American*.

Those who believe that carbs are the culprit might gravitate towards a keto or paleo diet, while thinking they can safely [binge on a pint of Halo Top](#). Others, believing that fats are the culprit, might try a low-fat vegan diet, but then innocently partake of [junk food binges on fat-free SnackWells](#).

Shell's essay relates findings from multiple studies revealing a new theory of obesity. As nutrition researcher Kevin Hall began his research, he too felt certain he would find that carbs were behind our obesity crisis. Instead Hall found obesity is caused by how much ultraprocessed food is in our diet, not the percentage of carbs or fats we eat. Shell explains Hall's work:

[Hall's] studies suggest that a dramatic shift in how we make the food we eat—pulling ingredients apart and then reconstituting them into things like frosted snack cakes and ready-to-eat meals from the supermarket freezer—bears the brunt of the blame. This “ultraprocessed” food, he and a growing number of other scientists think, disrupts gut-brain signals that normally tell us that we have had enough, and this failed signaling leads to overeating.

Hall's studies “found that people ate hundreds more calories of ultraprocessed than unprocessed foods when they were encouraged to eat as much or as little of each type as they desired.” The result was significant weight gain.

Ultraprocessed foods are ubiquitous in our diets. Shell reports,

An estimated 58 percent of the calories we consume and nearly 90 percent of all added sugars come from industrial food formulations made up mostly or entirely of ingredients—whether nutrients, fiber or chemical additives—that are not found in a similar form and combination in nature.

Some ultraprocessed foods, such as candy and soda, are obvious. Other foods “might seem like benign or even healthful products such as commercial breads, processed meats, flavored yogurts and energy bars” but are ultraprocessed.

Reading food labels, you can often identify ultraprocessed foods by long-lists of ingredients that you would never have at home, synthetic flavors and colors, emulsifiers, preservatives, and thickeners.

Recently my wife and I were hungry after a long hike. We stopped at the supermarket and grabbed what looked like a “healthy” option—organic tortellini. After ravenously eating our dinner, we were dismayed to find that cellulose was on the list of ingredients of our ultraprocessed “healthy” meal. In home kitchens, who [adds wood pulp](#) to thicken their food?

Were we to make this ultraprocessed “healthy” product a regular part of our diet, the pounds would soon pile on.

Shell also reports on studies in neuroscience that explain the link between obesity and consumption of ultraprocessed food. Dana Small is a neuroscientist at Yale University. Small’s research supports the theory that “ultraprocessed foods disrupt the gut-brain signals that influence food reinforcement and intake overall.”

Eat an apple and its sweet taste “signals the body to expect and prepare for that calorie load.” But drink soda with artificial sweeteners and you get the “anticipation and experience of sweet taste without the energy boost.”

Small makes clear the consequences: Disrupt the gut-brain signal and we will keep eating. Small says, “[When] the brain does not get the proper metabolic signal from the gut the brain doesn’t really know that the food is even there.”

If the food goes down easy, beware, you will probably overeat. The pint of Halo Top might be low in calories (compared to regular ice cream) but you will keep eating other food.

While hypervigilant about calories, we’ve lost track that all calories are not the same. Small says, “We’ve created all these hyperpalatable foods filled with fat, sugar, salt and

additives, and we clearly prefer these foods. But these foods don't necessarily provoke satiety. What they seem to provoke is cravings."

If you prefer ultraprocessed foods, you live in a golden age. If you want to change your eating habits, you also live in a golden age. Supermarkets have large fresh produce sections, large meat, poultry, and fish counters, and aisles of whole grains and beans. And now there is the [miraculous Instant Pot](#) to help you cook your unprocessed ingredients in record time.

Making the change takes the willingness to increase your cooking skills and the willingness to wash pots each night. Enlist the family. The [family that cooks together](#) bonds together and learns life-long skills together. With the assistance of [well-designed kitchen step stools](#), even young children can safely be in the kitchen. You might find the improvements in your health and well-being are more than worth the effort.

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