



Call Toll Free: **877-985-2695**

## Why Do We Overeat, and How Can We Stop?

April 05, 2014 | 240,547 views

---

### By Dr. Mercola

Today's featured video is a lecture by obesity researcher and neurobiologist Dr. Stephan Guyenet.<sup>1</sup> In it, he discusses some helpful and practical tips about the neurobiological underpinnings of our eating habits that can help you better understand why you gain weight.

He starts off by noting that the obesity epidemic closely parallels an increase in daily calorie consumption in the US. Compared to 1960, Americans eat an average of 363 calories more per day today. But *why* do Americans eat so much more now compared to previous decades?

Guyenet goes on to review some of the alterations to the US food system that promote overeating, stating that the human "brain's hardware may not be up to the task of constructively navigating the modern food environment."

Research does show that *what* you eat can make a big difference in *how much* you eat. As noted by Christy Matta in a previous article:<sup>2</sup>

*"One study,<sup>3</sup> for example, found that obese subjects ate 81 percent more total calories after eating two meals of instant oatmeal than they did after eating two meals with the same calories in the form of a vegetable omelet and fruit."*

In a nutshell, research shows that calories gleaned from bread, refined sugars, and processed foods promote overeating, whereas calories from whole vegetables, protein, and fiber decrease hunger.

While Guyenet reviews the role of your brain in all of this, other researchers have clearly demonstrated how your body's metabolism is altered by the foods you eat—as well as the impact of synthetic and toxic chemicals.

## Not All Calories Have the Identical Effect

The dogmatic belief that "a calorie is a calorie" has done much to contribute to the ever-worsening health of the Western world. It's one of the first things dieticians learn in school, and it's completely false.

Calories are *not* created equal, and as just mentioned, the *source* of the calories makes all the difference in the world. Groundbreaking research by [Dr. Robert Lustig](#) shows that calories from fructose are of particular concern.

According to Dr. Lustig, fructose is "isocaloric but not isometabolic." What this means is that *identical calorie counts* from fructose or glucose, fructose and protein, or fructose and fat, will cause *entirely different metabolic effects*.

However, Dr. Guyenet counters that although this is true at high levels, most of the human studies have found little

difference in the effects of sugar versus starch at more normal levels of consumption, as long as excess calories are not consumed.

The reason for the difference in metabolic effects is largely because different nutrients provoke different hormonal responses, and those hormonal responses determine how much fat your body will accumulate and hold on to.

This is why the idea that you can lose weight by counting calories simply doesn't work. After fructose, other sugars and grains are among the most excessively consumed foods that promotes weight gain and chronic disease.

Another dogmatic belief that simply isn't true is the idea that obesity is the end result of eating too much and exercising too little; i.e. consuming more calories than you're expending.

Here, research by the likes of Dr. Richard Johnson clearly demonstrates that this too is a complete fallacy. Like Dr. Lustig, Dr. Johnson places most of the blame on excessive fructose consumption, and his book *The Fat Switch* shatters the myth that obesity is the result of eating too many calories and not exercising enough.

Here again Dr. Guyenet disagrees. He believes that developing obesity is impossible without consuming more calories than are expended. If the energy content of your body is increasing, that means 'energy in' has to be increasing, and/or 'energy out' has to be decreasing. It's just that many things influence how much is coming in vs. out, for example what type of food you eat.

Although this may be technically correct the wild card here that is frequently overlooked is your body's ability to burn fat as its primary fuel. Due to insulin and leptin resistance, most people have impaired enzymes to burn fat which lends credence to Dr. Lustig's and Johnson's assertions.

## The Science of Obesity

While the first law of thermodynamics does apply to humans, in order to actually gain a significant amount of weight, Dr. Johnson's research shows that you have to do two things:

1. Block your sensation of fullness, and
2. Impair your body's ability to burn fat by downregulating the enzymes responsible for metabolizing fat.

What this means is that in order for you to become severely overweight you must first become leptin resistant. Leptin is a hormone that helps you regulate your appetite. When your leptin levels rise, it signals your body that you're full, so you'll stop eating. Refined sugar (in particular fructose) is exceptionally effective at causing leptin resistance in animals, and it's *also* very effective at blocking the burning of fat...

Guyenet also disagrees with this concept. He believes the most effective way to cause leptin resistance in rodents is a refined high-fat diet. Please note that these are not the healthy fats I advocate like coconut oil, avocados, butter and olive oil, but highly processed and refined industrialized soy, corn and canola oils.

He also discusses the impact of leptin sensitivity loss in the featured lecture. He notes that once your brain has lost its sensitivity to leptin, it will perceive the situation as normal, and will therefore *defend* that fat mass.

Another interesting tidbit is that if you're insulin resistant and obese, it doesn't take much fructose to activate the processes that will keep you fat. Some of Dr. Johnson's most recent research shows that the more high-fructose corn syrup you eat, the more you absorb and the more you metabolize it. Thus, eating fruits may be more of an issue if you are insulin resistant, whereas fruit intake is likely safer or even beneficial if you are lean and healthy. This helps explain the paradox of how some very fit people can eat a lot of fruit—which is rich in natural fructose—without gaining any weight.

## Toxic Foods and Bad Habits Hamper Proper Metabolic Function

Over the past 60 years or so, a confluence of dramatically altered foods combined with reduced physical exertion and increased exposure to toxic chemicals have created what amounts to a perfect storm. The extensive use of sugar—primarily in the form of high fructose corn syrup, which is added to virtually all processed foods—is at the heart of it all. But one also cannot underestimate the impact of chemistry, and the creation of truly addictive foods.

If you think about it, it's quite revealing that, in contrast to third-world countries, the *poorest* people in the US have the *highest* obesity rates. This seeming contradiction is, I believe, a clear indication that the problem stems from the diet itself. Something in the cheapest and most readily available foods is creating metabolic havoc, and indeed that's what studies are finding.

Research into the addictive nature of processed foods reveals that food companies have perfected the art of creating addictive foods<sup>4</sup> through the masterful use of salt, fat, sugar, and a wide variety of proprietary flavorings—most of which are far from natural. As a general rule, "food" equals "live nutrients." Nutrients, in turn, feed your cells, optimize your health, and sustain life. Obesity, diabetes, high cholesterol, hypertension, and heart attacks are all diseases associated with a *processed food diet* – a CLEAR indication that it does not provide the appropriate nutrition for your body.

## How to Regain Your Lean Body

So if you are carrying more body fat than your ideal, what's the answer? I believe there are two primary dietary recommendations that, if widely implemented, could help you regain your lean body and reverse our current obesity trend. This kind of diet will naturally shift your body from burning sugar to burning fat as its primary fuel, which will automatically help you shed excess weight, and counteract disease processes associated with a processed, high-sugar diet:

1. Avoid, sugar, refined fructose, grains, and processed foods
2. Eat a healthful diet of whole foods, ideally organic, and *replace the grain carbs* with:
  - o Large amounts of vegetables
  - o Low-to-moderate amount of high-quality protein (think organically raised, pastured animals). As a general guideline, I recommend limiting your protein to about one gram of protein per kilogram of lean body mass, or one-half gram of protein per pound of lean body weight. (If your body fat mass is 20 percent, your *lean* mass is 80 percent of your total body weight)
  - o As much high-quality healthful fat as you want (saturated and monounsaturated). For optimal health, most people need upwards of *50-85 percent* of their daily calories in the form of fat

While this may sound excessive, consider that, in terms of *volume*, the largest portion of your plate would be *vegetables*, since they contain so few calories. Fat, on the other hand, tends to be very high in calories. For example, just one tablespoon of coconut oil is about 130 calories—all of it from healthful fat. Good sources of fat include coconut and coconut oil, avocados, butter, nuts, and animal fats. Also take a high-quality source of animal-based omega-3 fat, such as krill oil

## The Case for Intermittent Fasting

Another strategy that works really well in combination with this kind of diet is intermittent fasting. In fact, intermittent fasting, or "scheduled eating," is one of the most powerful interventions I know of to shed excess weight, as it effectively jump starts your body to burn fat instead of sugar as its primary fuel. There are many different variations of intermittent fasting, but my personal recommendation is to fast *every day* until you reach your ideal body fat.

You do this by scheduling your eating into a narrow window of time each day. For example, you could restrict your eating to the hours of 11am and 7pm. Essentially, you're just skipping breakfast and making lunch your first meal of the day instead. This equates to a daily fasting of 16 hours—twice the minimum required to deplete your glycogen stores and start shifting into fat burning mode.

By increasing insulin sensitivity and mitochondrial energy efficiency, fasting helps slow down disease processes typically associated with insulin resistance—which includes metabolic syndrome. Fasting also benefits your body by reducing oxidative stress, and inducing a cellular stress response (similar to that induced by exercise) in which your cells up-regulate the expression of genes that increase their capacity to cope with stress and resist damage.

Intermittent fasting also has the near-magical side effect of eliminating sugar and junk food cravings. While most people will successfully switch over to burning fat after several weeks of intermittent fasting, it may take up to several months for those that are seriously insulin/leptin resistant. Their body needs to learn how to turn on the fat-burning enzymes that allow it to effectively use fat as its primary fuel. So don't get discouraged. Just keep at it. Once you've become fat adapted and are of a normal weight, without high blood pressure, diabetes or high cholesterol, you really only need to do scheduled eating occasionally. As long as you maintain your ideal body weight, you can go back to eating three meals a day if you want to.

## Quit 'Dieting' and Start Living Healthily

If you want to shed excess weight and protect your health, my most urgent recommendation is to replace processed foods with homemade meals, made from whole, ideally organic, ingredients. Remember to replace the grain carbs with vegetables, small amounts of high quality protein, and plenty of healthful fats. For step by step instructions and guidance, please see my [optimized nutrition plan](#).

Intermittent fasting can further boost your weight loss efforts once you're eating right, as it effectively helps shift your body into fat-burning mode. Last but not least, exercise acts in tandem with and boosts the benefits derived from a proper diet. For maximum benefits, you'll want to make sure to include high-intensity interval training, which is at the heart of my Peak Fitness program. To learn more, please see my previous article: "[The Major Exercise Mistake I Made for Over 30 Years](#)."

### [+] Sources and References

### [+] Comments (108)