

# Your Habits Are More Important Than Your Genes

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The risk of becoming obese is 2.5 times higher for those who have double copies of a particular gene. However, a good diet neutralizes the harmful effects of the gene. This means that the critical factor is what you eat.

Several studies have found that exercise diminishes the effect of the risk gene, but a new study is the first to study the effect of the gene in relation to food habits. The risk variant of the FTO gene is common in the general population. 17 percent have double copies, meaning they have inherited it from both parents. Another 40 percent have a single copy.

The FTO genes acts in the hypothalamus, the part of the brain that regulates appetite and satiety, and the risk variant has been connected to an increased energy intake, especially in the form of fat.

## Sources:

» [Science Daily September 11, 2009](#)

» [American Journal of Clinical Nutrition September 2, 2009 \[Epub Ahead of Print\]](#)

## Dr. Mercola's Comments:

I have good news and bad news.

The good news is that we are now starting to see more research supporting the notion that you are not a victim of your genetic makeup. The fact that you may be genetically inclined toward gaining excess weight does not mean you're destined to be obese.

Your diet can alter the genetic *expression* of those genes!

Said lead researcher Emily Sonestedt:

*"This shows that we are not slaves to our genes. Even if we are born with an inherited predisposition to obesity, lifestyle is important."*

Two years ago a [study](#) out of New Zealand also challenged the myth that obesity is caused by "bad genes." In what was considered a breakthrough discovery, scientists confirmed that genetic pre-disposition to obesity is entirely preventable through good nutrition in early childhood. The key to this gene-reversal was the appetite-controlling hormone leptin, which I will discuss shortly.

As a side note, although an important one, you also need to be aware that [pharmaceutical drugs can also impact your genetic expression](#)—usually for the worse. [Epigenetic](#) side-effects of pharmaceuticals may be involved in the etiology of a number of common health problems, including obesity.

The bad news is that if you listen to the advice in *Science Daily*, you may be led to believe that a low-fat diet is your best alternative to slim down and get healthy.

Time and again, it has been shown that low-fat diets, for most people, are NOT the weight loss miracle they're made out to be, so let's address that issue first.

## **The Skinny on Fat**

It's important to understand that *eating fat will not make you fat*.

Now, in this study, they did find that high fat diets led to greater expression of the FTO gene. Those who have double copies of this risk gene were found to have a 2.5 times higher risk of becoming overweight, especially if they consumed high amounts of fat. A lower fat diet was found to neutralize the effects of the gene.

According to the lead researcher, those who had a diet where less than 41 percent of the energy consumed came from fat, were not obese despite their inherited risk.

She also said,

*“It could be that the carriers of the risk gene don't feel as full from eating fat and therefore consume more and gain weight.”*

This is a complicated topic, but one that becomes more easily understood when looked at from the perspective of nutritional typing.

At the heart of nutritional typing is the idea that we each have unique systems that are designed to thrive on unique combinations of protein, fat and carbohydrates. So while some people may actually benefit from a low-fat diet, others will not. Your genetic makeup is part of your nutritional type, but it's not the only factor.

Many people are still convinced that a strict low-fat diet is the best way to lose weight, but many studies have shown that *low-carb* diets are more effective for weight loss, and here's why:

Your cells need fuel to function, and they can get their fuel in the form of sugar or fat.

However, your body must burn all of the available sugar first before it turns to burning fat. So let's say you eat a big plate of pasta (which turns into sugar in your body) along with a small amount of olive oil and meatballs (fat and protein). Your body must first burn off all of that pasta, and whatever can't be burned off will eventually be stored as fat. The fat you just ate, meanwhile, also goes into your fat stores.

The more carbs and sugar you eat, the more your cells become accustomed to burning sugar as their fuel. After awhile, they will begin to [crave it and prefer it to fat](#).

According to [Dr. Ron Rosedale](#),

*“People get fat not so much because they eat fat, but because their bodies have forgotten how to burn it, and because of poor hormonal communication.”*

Yes, there’s more to the story of appetite regulation than simply having an FTO gene acting on your hypothalamus, as suggested in the article above.

Your appetite is in large part governed by the hormone leptin.

### **How Leptin Regulates Your Weight**

Let’s say you, like many Americans, eat loads of sugar, bread, baked goods, crackers, cookies and countless other carbs. Your body doesn’t know how to handle all of that sugar, so it continues turning it into fat to get it out of your bloodstream.

For awhile, you’ll keep gaining weight, and this is actually in response to your cells keeping you alive by turning the excess sugar into fat. Eventually, though, even your fat stores can get filled up.

This is why people who become obese frequently end up with diabetes; there’s no place left to store the excess sugar as fat, so it remains in your bloodstream, driving your insulin levels up and causing [leptin resistance](#).

Ultimately, this leads to a [variety of problems](#) as your body “forgets” how to burn fat properly.

The solution is not a low-fat diet, but rather to eat [less carbs and sugar](#), and *more healthy fats*.

Yes, MORE healthy fats! This way, your body can easily burn the sugar that you do eat and continues to be adept at burning fat as well. You’ll stay leaner and healthier, and you’ll feel fuller too.

The key here though is “healthy” fats, not just any type of fat.

### **How Much, and What Type of Fat Should You Eat?**

This is highly individual. We all need some fat, but some of us need upwards of 50 percent of our diet in the form of fat, while others need as little as 10 percent.

The distinction, again, depends on [your nutritional type](#) (which takes into account genetic and metabolic factors such as the FTO gene), and if you’re interested in losing weight or staying healthy, I highly recommend you determine which nutritional type you are.

Of major importance, regardless of your nutritional type, is to focus on healthy fats like:

- Olive oil
- Animal-based fats (grass-fed meats, omega-3, and raw dairy products)
- Nuts and seeds
- Coconut oil
- Avocados

Fats from highly refined sources, like vegetable oils and trans fats, should be avoided by everyone.

For more information on fats, please review my [beginners plan: fats](#) page.

One of the best benefits of learning your nutritional type is that you don't have to worry about counting calories or fat grams. Instead you focus on eating *the right proportion* of carbs, fats and protein for your body.

It's a much more natural, intuitive way of eating, and you'll know when you've found the right ratio for you because you'll feel simply wonderful.

### **Diet and Exercise are the “Magic Pills” You’re Looking For**

One of your most basic health principles is to eat a diet of [whole, nutritious foods](#) rather than the processed ones that line most grocery store shelves. This includes [cutting out grains and sugar](#), which are two of the MAJOR culprits behind weight gain.

What your body needs is nutrition, not artificial fillers and flavors.

You also cannot be optimally healthy, nor successfully lose excess weight without [exercise](#). The two go hand-in-hand.

If you are overweight, you will need at least 30 minutes of exercise a day to experience any weight loss benefits. Major studies have shown that 60 minutes a day is best.

Ideally, your exercises should be broken up with short breaks in between for maximum effectiveness. I've published many stories about [the benefits of interval training](#), which has led me to incorporate interval training (sprints) with endurance cardio training (running) in my own routine.

If running or other aerobic activity does not appeal to you, you can achieve similar results by using properly supervised weight training. Ideally you should do both.

Interval training is also a welcome relief for those who dread, or don't have time for [hour-long cardio workouts](#).

I've written extensively about the countless health benefits of exercise. If you need some direction to get started, I urge you to review my [beginner's exercise page](#) that includes links to my most important exercise articles.

## **Related Links:**

- » **[Do Genetics Control Whether Your Child Will be Fat?](#)**
- » **[Pregnant Mom's Diet Can Turn Genes on And Off](#)**
- » **[What You Don't Know About Leptin Can Make You Fat](#)**

**Reference website:** <http://articles.mercola.com/sites/articles/archive/2009/09/29/Your-Habits-Are-More-Important-Than-Your-Genes.aspx>