

## Wise Up and Stop Eating Your Muscles for Fuel

By Ron Rosedale, MD

Some of you may be thinking, "I may eat a lot of starchy carbohydrates, but at the same meal, I am also eating protein and fat. Why am I just burning sugar and storing fat?" It's a good question, and it gets to the heart of the vicious cycle.

Let's assume that you are following the current dietary recommendations that tell you to eat more than half of your daily calories in the form of carbohydrate. You fill your plate with a cup or so of pasta, topped with meatballs, some tomato sauce and cheese.

From the minute the pasta is in your mouth, it begins to be broken down into simple sugar. Your body can only store a small amount of sugar at a time in the form of glycogen that is stored in muscle and liver. What's not stored as glycogen is burned off as quickly as possible, forcing you to burn sugar, but your cells can only burn so much off at a time.

What happens to the rest of the sugar that isn't being stored or burned? It is converted into saturated fat. What about the protein and the fat in the meal that you just ate? Some of the protein is taken up by the cells for repair and maintenance, but your cells can only utilize a small amount of protein at a time. The rest, largely, is turned to sugar and stored as saturated fat. That leaves just the fat that is not burned when sugar is around to burn, which gets stored away as more fat.

Why isn't the protein and fat burned as fuel? Because you must first burn up sugar if it is available. If you eat sugar and fat together, you have to burn sugar first before you burn the fat. Furthermore, your cells get used to burning a particular fuel, in this case, sugar.

When you are younger, your metabolism is more flexible, and you can switch fuels more easily. As you get older, your cells get stuck in a rut, and if they are used to burning sugar, they will look for more sugar to burn when they need fuel.

You have to burn almost every gram of available sugar before fat burning kicks in.

### Your Cellular Addiction to Sugar

Being a sugar burner is not a good thing. Your cells begin to crave sugar, and they don't care where the sugar comes from. If you go to sleep and you're still in a sugar-burning mood, your body is going to continue to look for sugar to burn as you sleep. You won't like where it gets it.

When your cells are "hungry," they will quickly go through the starchy glycogen in your liver and muscle to get sugar, however, your body would prefer to save your stored sugar (glycogen) for anaerobic emergencies, such as sprinting away from a lion, and therefore will only give up a small portion.

## Do You Really Want to Use Your Muscles as Fuel?

Thus, your cells will continue to look elsewhere for sugar to burn by breaking down protein in your muscle and even bone, which it can also burn as sugar. This is a far more significant cause of osteoporosis than not taking calcium supplements.

Here's the kicker: As long as there is sugar to be had, and your hormones are telling you not to burn fat, your cells won't go into your fat stores. You can have pounds of excess fat just waiting to be burned, and your cells will bypass it to get to sugar. As long as you continue to eat a high-carbohydrate, high-sugar, or excess protein diet, your body will keep on burning sugar and storing fat.

As long as you are leptin-resistant, you will stay hungry because of the brain's inability to "hear" leptin. When you are leptin-resistant, your brain is telling your body to make fat, store it and, importantly, to conserve the fat that you have. You then have no choice: You must burn sugar.

## Stop Eating Your Muscles

In order to break the vicious cycle, you need to retrain your brain to instruct your cells to burn fat as your body's primary fuel. When you are a true fat-burner, your cells eat fat even when you're not eating. When your cells need energy, they can get it from your fat stores. You're burning fat all the time, even when you're sleeping, and you don't eat your muscles and bone. Your brain doesn't care whether the fat just came from what you eat, or whether it comes from deep in your viscera by delving into your fat stores.

Your arteries will also be allowed to burn their own fat stores -- the plaque that ultimately can plug them up. If you start burning the fat you've stored, you feel satisfied and you won't get hungry because your cells are being properly nourished.

Our prehistoric ancestors actually ate a lot more fat than we do today, and did not routinely eat grains or much fruit because they weren't often available. They had no choice but to be fat-burners, and not surprisingly, their bodies were leaner, their bones stronger, and they did not appear to suffer from the same chronic diseases we do today.

I'm not suggesting that they ate an optimal diet. They had limited choices, but ironically, they probably ate better than most of the world's population does today.

Once you become a proficient fat-burner, when your cells need energy, they will get it from your fat stores. Your brain doesn't care whether the fat comes from the food you just ate, or from the fat that is embedded in your abdomen, arteries or other places in your body. It will start burning off the excess fat you have stored by feeding your cells the healthy fat they need.

And, you will not be hungry: You will get healthier and you will slow the rate at which you age.