

### THE WEIGHT LOSS – TOXICITY CONNECTION

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We all know the basics: eat less, exercise more. It's the old calories in, calories out equation, and it covers the essentials pretty well.

## But what happens when it doesn't work?

We've met many patients over the years that seem to be doing everything right. They reduce their calories, eat their vegetables, and exercise daily but they still aren't getting the results they should. The problem? Sometimes achieving your best body weight is a little more complicated.

Enter toxicity. Toxins are everywhere in our environment. Heavy metals like mercury and lead, pesticides, PCB's, dioxins (to name just a few) find their way into food and water supplies, household items and the air we breathe.

Many of these toxins are fat-soluble – they accumulate in our fat tissues (and the fat of animals we eat) – and have been linked to reproductive problems, hormone imbalances and cancer. But they also have an impact on our ability to lose weight. Here's why.

# **Toxins Keep You on the Couch**

In our cells, little organelles called the mitochondria produce energy. Lots of it. Toxins gum up the mitochondrial machinery, though, much like putting sugar in a gas tank, and reduce the energy produced. Add to that the ability of these toxins to decrease the amount of active thyroid hormone, and you've got a recipe for fatigue, not fitness.

### **Reduced Burn Rate**

The energy drain and reduced activity also decrease our Basal Metabolic Rate (BMR), so that the amount of calories we burn at rest (which accounts for the largest proportion of our caloric usage) drops. And toxins also block lipolysis, our ability to burn fat for energy. When that happens, the calories you do burn start to come from places other than fat – like you're lean muscle mass. That in turn reduces your BMR even more.

#### **Yo-yo Toxicity**

Radical dieting makes the story worse still. Toxins accumulated in your fat cells over time come out of storage when weight is lost, and re-circulate making your body more toxic. This starts the weight gain process all over again.

Reducing your toxic load can help increase you energy levels so you want to exercise, increase your BMR to burn more calories, and increase your lipolysis so you are able to use more fat for energy. Along the way, you're decreasing your risk of chronic diseases associated with toxicity.