



## The Real Story on Yoga and Weight Loss

*Contrary to What the Newspaper of Record Says, Yoga Will Not Make You Fat*

**By Timothy McCall, MD**

While I was in India, the book *The Science of Yoga* by the *New York Times* science writer William Broad was released with much publicity and, at least in the yoga world, a lot of controversy. As many of you know, I wrote a response to an excerpt of the book that appeared in the *Times Sunday Magazine* on the topic of yoga injuries. At the risk of giving the book even more free publicity -- there's one more contentious issue it raised that I feel needs to be addressed: yoga and weight loss.

As Broad correctly pointed out (though this is hardly new information), yoga has been shown in several studies to decrease metabolic rate. In other words, yoga practitioners tend to burn fewer calories per hour than non-practitioners. He therefore concludes that all things being equal (which of course they never are), yoga could contribute to weight gain, especially among women. While it sounds logical, the problem is that it flies in the face of most people's experience as well as the majority of the scientific evidence to date.

As I pointed out in my 2007 book *Yoga as Medicine*, several studies have suggested that practicing yoga contributes to weight loss and lessens the likelihood of weight gain. Dr. Alan Kristal of the Fred Hutchinson Cancer Research Center in Seattle and colleagues surveyed more than 15,000 people in their fifties, 132 of whom had been regular yoga practitioners for at least four years. During the previous ten years, overweight people in the yoga group had lost an average of five pounds, compared to a 13.5 pound gain among overweight non-practitioners. In Dr. Dean Ornish's studies of a comprehensive lifestyle program including yoga and relaxation, as well as walking and a low-fat vegetarian diet, participants lost almost 24 pounds in their first year, and five years later had maintained half that loss. Just last year, Dr. Nina Moliver from the School of Behavioral and Health Sciences of Northcentral University in Prescott Valley, Arizona and colleagues published an impressive study on yoga and body weight.



Moliver's article, published in the *International Journal of Yoga* (full text available for free [here](#)) found that in long-term female yoga practitioners over the age of 45, the more yoga they practiced, the lower the body mass index (BMI). The results held up even when adjusted for such factors as age and lifestyle. Of note, it's wasn't the number of years of practice that predicted the lower body weight, as much as *how many hours per week* the women did yoga. Among the 49 women who had practiced more than 25 years, there were no cases of obesity. In addition, according to the authors, "Yoga practitioners were less likely than non-practitioners to use medication for metabolic syndrome, mood disorders, inflammation, and pain."

How do we reconcile yoga's effects on lowering metabolic rate with the evidence that it contributes to weight loss? A big factor is probably the stress hormone cortisol, which is curiously barely mentioned in the *Science of Yoga*. Cortisol has been shown to increase hunger and binge-eating, and if you overeat that cortisol will help ensure those extra calories get converted into fat. Even worse, that fat will disproportionately be deposited between the internal organs (so-called intra-abdominal fat), the worst kind from a health standpoint, due to its link with Type 2 diabetes, metabolic syndrome, heart attacks, etc.

What Broad didn't mention is that when you are stressed out, the sympathetic nervous system and stress hormones increase your heart rate, blood pressure, and breathing rate, and that burns additional calories. Your body is working hard to prepare you for "fight or flight." So, yes, when you relieve that situation and shift back into better balance in your autonomic nervous system, your metabolic rate goes down. But to conclude from this fact alone that yoga would contribute to weight gain, in spite of the data to the contrary, is dubious science (though it may be excellent book marketing). Fact is the additional calories stressed-out folks take in, tend to more than compensate for the extra calories they burn.

You can definitely burn calories doing a vigorous yoga practice, but beyond this and yoga's effect on reducing stress hormones, the practice's greatest effects on body weight may be due to its tendency to increase mindfulness. When you cultivate your awareness of bodily sensations the way you systematically do in a hatha practice, you begin to tune into subtle internal cues, on and off the mat. For example, you may notice the signs that signal you're getting full that someone who is distracted wouldn't notice. In addition, when you eat more slowly and mindfully, you taste your food better and may need less to be satisfied. People who cultivate bodily awareness through yoga are also more likely to make healthier food choices. Studying your mind the way a meditation practice



facilitates may alert you when you're desiring food for emotional reasons rather than from genuine hunger. Yoga also tends to make you happier and less anxious. The result of all of these factors is a tendency for body weight to slowly move in a healthy direction, as long as you keep up your practice. And while people like the idea of losing weight quickly, the gradual weight loss yoga encourages is gentler on the body than drugs, dietary supplements, and the latest fad diets -- and in all likelihood much more likely to result in sustained results.



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