



May 21, 2016 – Grand Rapids, MI

Lessons from “The Biggest Loser”

The recent study on weight gain by former participants in “The Biggest Loser” reality television show blamed decreases in resting metabolic rate (RMR): the decrease in RMR became worse over time and contributed to most of the participants regaining most of the weight. In other words, they ruined their resting metabolism.

No, they didn't. In my opinion, there are errors in the measurements for RMR and total energy expenditure (TEE). The errors may be in the equipment, but more than likely, in the assumptions that were made in the calculations.

Here's where I think researchers went wrong: there was no direct measurement for RMR or TEE used in the study. In order to directly measure either requires confinement to a metabolic chamber for at least 24 hours. That would work for RMR; people could be sleeping for some of the time. But because the size of the chamber would limit a subject's activity, TEE measurements would likely be inaccurate. The methods used are acceptable alternatives; I've done RMR myself in my lab using the methods they used. But in every case, the algorithms make assumptions. For example, the calculations assume that protein makes up 15% of the RMR caloric expenditure; that may not be correct for morbidly obese subjects.



There are more calculations that could have similar errors in assumptions, but to explain them all could take 10 pages. Suffice it to say that while there were changes in RMR, it wasn't as bad or as big a contributor to regaining weight as the researchers seemed to think.

The one thing that researchers didn't do was assess diet at any time in the six years after the end of the contest. Based on published interviews after the study was released, the contestants returned to some of their old eating habits. I'll give you my analysis: the overwhelming reason why most of the contestants regained weight was that they went back to their old eating habits and sedentary lifestyle. The contest left them ill-prepared for everyday living where they didn't have six hours a day to work out.

What's the lesson for us? If we want to permanently change our body weight, we have to permanently change what we eat and how much we exercise. Another lesson is that we shouldn't rush things. Our bodies can adapt to a new size and shape, but it takes time. We didn't go to sleep at 150 and wake up at 250 pounds. We shouldn't expect our bodies to respond well when we try to get rid of in 12 weeks what took 12 years to gain.

Here's how you get where you want to be: slow and steady. Eat less. Eat better. Move more.

What are you prepared to do today?

Dr. Chet

Reference: <http://onlinelibrary.wiley.com/doi/10.1002/oby.21538/epdf>

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