



Sylvia R. Karasu M.D.
The Gravity of Weight

The Body's Damage Control: That's the Way the Cookies Crumble

The fate of one chocolate chip.

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Most people who know something about calorie counting can appreciate that adding a few extra calories every day over the course of time can have a substantial effect on our weight. After all, as I have said, "calories in, calories out." Brian Wansink, in his wonderful book, *Mindless Eating*, makes the point that eating three extra Jelly Belly jelly beans, equivalent to a mere 12 calories a day will add an additional 4380 calories for the body to process after one year. Since there are roughly 3500 calories to one pound of weight gain, that will lead to over a pound extra by the end of the year, even if we change nothing else.



One of the most effective commercials, sponsored by the New York City Department of Health, called "Pouring on the Pounds," appeared just about a year ago and emphasized the same thing. This commercial, well worth watching (particularly if you never want to drink soda from a can again) on YouTube at www.youtube.com/watch?v=-F4t8zL6F0c, shows a young attractive man drinking down globules of fat. The message, "Don't drink yourself fat!" since, after all, one can of soda a day can lead to an extra ten pounds of weight a year later. But does that mean we can extrapolate that in two years you are twenty pounds heavier or in three years, thirty pounds heavier, and by ten years, 100 pounds heavier from that one daily can of soda? Well, no. Why?

The body has compensatory mechanisms, or as I would say, a kind of damage control, to prevent such dangerous changes to its balance (i.e. homeostasis). And that's where

Source: YouTube, Public Domain, New York City Department of Health

our chocolate chip cookie comes in. Earlier this year, in the *Journal of the American Medical Association*, Katan and Ludwig explored just this conundrum using the example of eating one extra 60-calorie chocolate chip cookie for life: by one year, the body may gain a few pounds from those extra calories. But as we all know by experience, this weight gain does not continue at the same rate indefinitely: even a decade later, no one will gain an extra 100 pounds from eating one extra 60-calorie cookie or three extra Jelly Belly jelly beans a day. Katan and Ludwig explain that over time, "an increasing proportion of the cookie's calories will go into repairing, replacing, and carrying the extra body tissue." And after a few years on this regimen, our body weight will stabilize, albeit at a higher level than initially. Unfortunately, though, when we lose weight, the amount of calories needed to maintain (i.e., repairing, replacing tissue, moving) our lower weight body also decreases. We can remember from physics that it takes fewer calories, for example, to move a lighter object than a heavier one. What this means is that once someone has lost a substantial amount of weight, he or she needs either to increase physical activity or decrease caloric intake. And Katan and Ludwig say that most people do the opposite: once they have lost weight, they return to their previous eating and exercising patterns before their weight loss, with the result that they will tend to gain their weight back.



A word of caution: many people who have a weight problem cannot stop at one chocolate chip cookie. Weight expert, Dr. Stephen Gullo, whose book, *Thin Tastes Better*, said it best, "Where there can be no moderation, there must be elimination." In other words, for some, it is easier not to take that first bite.

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About the Author



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In Print: *The Gravity of Weight: A Clinical Guide to Weight Loss and Maintenance*

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