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The Gravity of Weight

The Myth of "Nutritional Precision:" What Do We Really Know

Reading between the lines: Twinkies and food quality illiteracy

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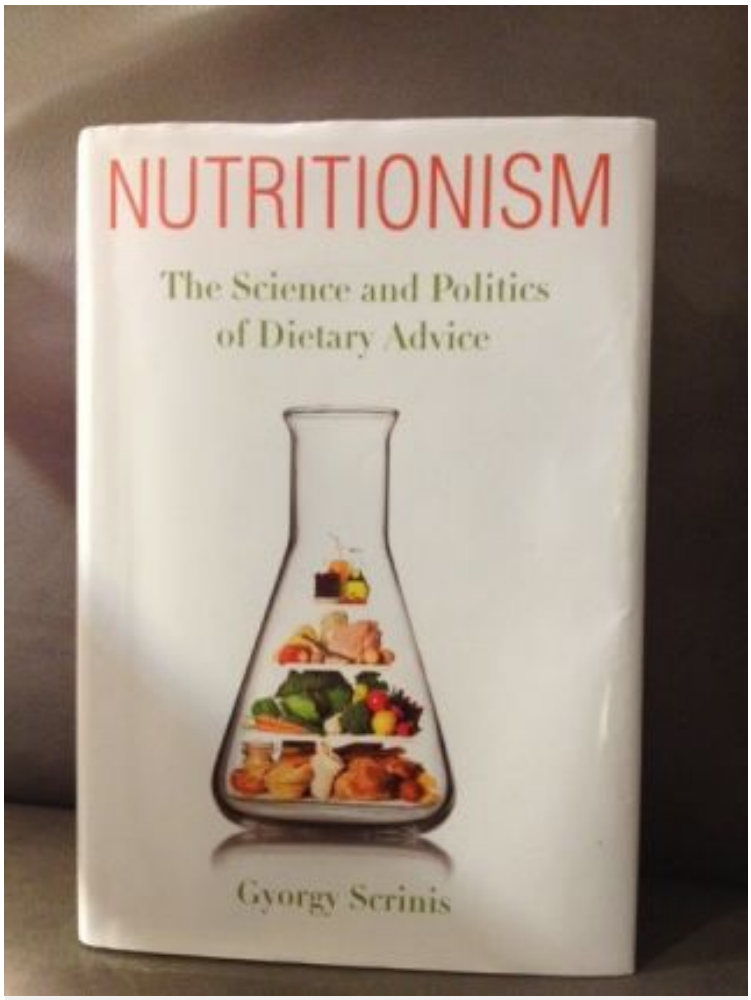
There are many myths in the field of weight control. In previous blogs, I have recommended Dr. David B. Allison's and his colleagues' 2013 article published in the *New England Journal of Medicine* on some of the most common myths about weight, and I have explored myths about the "freshman 15" and setting weight loss goals.

A new book *Nutritionism: The Science and Politics of Dietary Advice* by Dr. Gyorgy Scrinis, from the University of Melbourne in Australia, explores still another myth, the myth of *nutritional precision*, i.e., an "exaggerated" belief held by many people that scientists understand more about the complex interactions of nutrients, food, and their effects on the body than they really do.

For example, when health professionals recommend a diet of 30% fat intake, they are giving a *veneer of scientific precision*, rather than dispensing solid knowledge necessarily based on double-blind controlled clinical studies. When we label foods as "good" or "bad," we have a "one dimensional' simplistic understanding of health, rather than appreciating that nutrients can be beneficial or harmful depending on the company they keep. When we hear about the dangers of trans fats in our foods, says Scrinis, we are not focusing on the fact that the health consequences of removing these deadly fats will ultimately depend on what chemical processes are involved and what compounds are substituted instead.

Scrinis says that we talk about calories "as if they had an independent existence," rather than that they are a fairly "crude measure" of energy. After all, a calorie is the amount of energy required to raise one kilogram of water one degree on the Celsius scale. A calorie is a "highly abstract concept," not a concrete entity. To focus on calorie



The need to become "food quality literate" in a book by Gyorgy Scrinis

Source: photo by Sylvia R. Karasu, M.D.

counting, while important as a general way of measuring food, obscures the extraordinary complexity of metabolism in the body, as, for example, how foods eaten together may interact with each other in unpredictable ways. For Scrinis, this “singular calorie focus” is an example of *nutritional reductionism*.

According to Scrinis, we have gone through three historical periods. The first was the era of *quantifying nutrition* where the focus was on consuming adequate nutrients to avoid diseases (e.g. vitamin C to prevent scurvy.) The second period was the era of *good and bad nutritionalism*, where the focus was on preventing chronic diseases (e.g. lowering cholesterol to prevent heart disease.) Since the mid 1990s, we have entered the third period, that of *functional nutritionalism*, where the focus has been on emphasizing the beneficial aspects of nutrients and creating engineered "functional” or “superfoods” that claim actual health benefits, though the term is “so poorly and broadly defined that virtually any food with added nutrients..seems to qualify” (e.g. probiotic yogurt drinks; orange juice with added calcium.)

Scrinis acknowledges that most foods, except those eaten raw, have some form of processing, including peeling, cooking, or chopping, but clearly the most healthy for us are those that have minimal processing. The second level of processing involves extraction, refining, and concentration of “food components.” This level may involve chemical, temperature, and pressure manipulations that enable these foods to be transported over distances and have a considerably longer shelf life. Examples of this level of processing include production of white

Even a magnifying glass won't help

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flour, cane sugar, fruit juices, or even high fructose corn syrup. The third level, and most problematic, level of processing involves reconstituting food, often with chemical preservatives, and added refined flour, sugar, salt, and fat. These are sometimes called “fabricated” or “synthetic” foods. Examples of this level are chicken nuggets and Twinkies, as well as pink slime--those ammonia-treated, heated beef trimmings--used as a filler for hamburger meat.

Scrinis believes we should base our dietary guidelines on how food is produced and the level of processing involved. Even our current nutritional labeling “fails to distinguish between nutrients intrinsic to the ingredients in food and those added during processing.” He suggest a “food quality label” that would not only list all the ingredients, but specify the types of processing involved.

Bottom line: We all need to become considerably more “food quality literate” and continue to question not only how our food is processed but demand healthier food choices from the food industry.

There have been chemicals added to ground beef--
called "finely textured beef" or "boneless beef trimmings."

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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*

Online: my own website