

Weight Loss Methods Update

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Bottom line at the top: To achieve and maintain a healthy weight and body, eat a prudent, varied diet, do intermittent, intense exercise and keep your house cool or cold.

There is never a lack of make-someone-rich weight loss plans. While I object to the “You can never be too thin” philosophy, I believe that people who need to lose weight to improve their health should be aware of their options and some of the science, while avoiding supplement scams. I’ve written about various traditional diets in the past, which you can read here {http://www.healthychoicesformindandbody.org/Medisense_Articles/13061-Best_Diets.pdf} In this article I discuss a Nutrisystem look-alike, Optavia, Noom, the science of brown fat, a few supplements and intermittent fasting.

The Optavia Diet Plan is a pre-packaged low-carb diet plan that promises to give participants “lifetime access to a personalized PerfectBody™ weight loss plan” that will keep them accountable. It claims to create a “healthy & effective, short-term weight loss” meal plan that “fits a person’s needs with only the food they love” (apparently without chocolate chunk brownies) and suggests easy-to-follow exercises. Optavia provides pre-packaged foods, meal plans and coaching support. It’s basically a not-cheap, digital technology-heavy variation on themes previously established by Nutrisystem, Jenny Craig and Weight Watchers.

Noom is a subscription-based app for tracking food intake and exercise habits. The program emphasizes behavioral change and mental wellness, which will work no matter how you achieve them.

In my opinion, the problem with apps like Noom and others is that ‘tracking’ binges doesn’t keep you from doing them.

Humans are not all the same, with uniform metabolism

People vary with respect to their metabolism and ease of gaining and losing weight. One variable affecting weight is the amount of Brown Fat (BAT= Brown Adipose Tissue), which is found in almost all mammals, that we have. Brown fat and other genetically determined hormones that control metabolism are some of the reasons that the calories in, calories out balance often doesn’t dictate weight loss and gain.

BAT derives its brown color from an excess of iron-rich mitochondria. Mitochondria are the cells’ engines for turning calorie sources into energy, energy for organ function and tissue repair. Extra energy, which dissipates as heat (called thermogenesis), maintains body temperature. Hibernating animals and human babies, who naturally don’t shiver, need brown fat to stay warm.

Brown fat deposits originate from fetal tissue destined to become muscle or from white fat cells stimulated by the sympathetic nervous system. We lose brown fat deposits with age, but any retained brown fat pockets localize in the neck and around the collarbone, kidneys and spinal cord. You can’t feel them as lumps. Brown fat cells may be interspersed in white fat tissue, giving it a beige appearance. Lean people and males usually have more brown fat than do overweight people and females. Animals and people who have more brown fat metabolize more calories and are more easily able to stay lean. The only two conditions that might increase BAT are cold and intense exercise.

Exposure to cold may turn some white fat to brown. A study of Japanese men sitting in a 63-degree room for 2 hours per day burned more calories. The extra amount they burned grew over the 6-week study, suggesting they created more brown fat, burning more calories, with successive exposure. The problem with this conclusion is that the scientists assumed the results depended on BAT, without directly quantifying it in these men.

Over-the-counter products sold for weight loss.

Exipure, Alpilean and Ikaria lean belly juice are supplements that purport to increase BAT in your body but probably don’t.

Alli (pronounced Ally) is the over-the-counter version of Orlistat, which blocks fat digestion and absorption from food. It causes diarrhea and smelly gas if the consumer

doesn't reduce fat consumption. Success with it results from eating less, to avoid those side effects.

Irisin is a protein released by muscle that naturally helps to convert white fat cells to BAT, regulate bone strength and improve cognition. People who do high-intensity exercise make more irisin, but so far there is no direct link between exercise duration and brown fat volume. Irisin released by muscles may be the reason that exercise's metabolic benefits persist after stopping a bout of exercise.

Don't purchase irisin supplements: Excessive irisin harms mouse hearts, there is debate about whether it circulates in blood or is measurable, and there's zero proof that it would be absorbed into the body intact. A company partnered with the scientist who discovered it gave up before it went to market.

Intermittent fasting, also called time-restricted eating

Perhaps the most popular diet type lately is "intermittent fasting", so-called because the dieter limits eating a nutritionally complete diet to certain hours of the day and/or days of the week. These plans prescribe a number of common eating patterns: Either alternate days of complete fasting with eating days or fasting two of the seven days a week. An alternative pattern constrains food consumption to 6-8 hours a day. That this might produce weight loss makes no sense to me, since many obese people gained their extra weight essentially by doing this pattern of time-restricted eating – For years, the obese have told me that they eat no food until a small lunch, followed by a large dinner and snacking for the rest of the evening. A pattern of a 16 hour fast, from midnight to 4PM, followed by burgers, alcohol and sweets during the 8 hours until the next midnight isn't likely to yield much weight loss.

The theory goes like this: A complete fast switches metabolism from glucose to fat, producing ketones that turn off appetite. This happens with a fast of longer than 12 hours, but the metabolic change doesn't persist. Dr. Satchidananda Panda did much of the research, resulting from his work on how our circadian hormone rhythms work to improve organ function, mood and overall health. He posits that eating only 8-12 hours per day mimics how people ate centuries ago, when few people had diabetes, high cholesterol and heart disease. They also did more physical activity and had access to limited food portions.

Instead of condoning unhealthy eating during the eating periods, these diets come with serious rules about

permissible foods to consume, though not everyone follows these rules. Recommended foods include whole grains, fermented foods, fish, eggs, nuts, berries, beans, legumes and leafy vegetables. Those foods also comprise some of the healthiest prudent diets, like the Mediterranean, DASH and revised American Heart Association diets.

So far, data analyzing intermittent fasting document only short-term weight loss, without long-term weight maintenance data. Maintaining weight control is always the hardest part of weight loss. There is no evidence that weight lost in this manner will be permanent unless the eating pattern is.

Time restricted eating, if it succeeds at reducing calories consumed, may achieve health benefits, with or without weight loss, because long-term calorie restriction of about 10-40% without malnutrition prolongs life in mice and prolongs health, but not necessarily life, in humans.