

Set Point: What Your Body is Trying to Tell You

By Donna Ciliska, R.N., Ph.D.

Why is it that when you are trying to lose weight, the rate of weight loss usually slows down, stops, and often weight starts back up again, even if you are still following the recommended program? This nearly universal reaction is very discouraging to those trying to be thinner. You think, “There must be something wrong with me. I must need to cut back more in order to lose or maintain the weight loss.” When the next plateau arrives, you think, “Why bother trying any more?” The deprivation no longer produces the desired result, leads to over-eating (maybe even a binge) and weight is quickly regained.

Determining body size by set point

The human body is able to adapt to situations of excess or insufficient energy intake (food). Several studies have shown that not only eating habits, but also genetics determine adult body size. For adults who do not consciously try to control their body size, weight is remarkably stable over time. These three factors together have led to the description of a “set point” – a reference point around which the body tries to keep a weight stable. An example of another set point is body temperature – if temperatures go above or below 37°C (for example, from infection or exposure to a cold environment) there are a variety of physical mechanisms that “kick in” to try to get back to, and maintain normal body temperature.

Each individual may have a genetically determined set point for adult weight. If weight is gained it has been shown that some people experience an increase in metabolism (the rate at which calories are used) so that excess energy is wasted. Following this period of weight gain, it is relatively easy to revert to the previous set point weight. However, trying to go below the set point weight has the opposite affect. Metabolism can slow down as less food is eaten or exercise is increased. This leads to a slow down in weight loss, a plateau, or even weight regain on few calories. This is your body’s attempt to keep your weight stable.

Maintaining weight loss

These mechanisms have been used to explain why few people are able to maintain any weight loss following a reducing diet. Those who do maintain a lower weight were probably above their set point when they started the diet. They lost weight down to their set point and were able to maintain at their set point without constant restriction.

However, for those already at their set-point, but above “average” weight, a reducing diet attempts to get them below set-point, resulting in slower metabolism and quick regain on few calories, as the body attempts to keep the physically “normal”, but culturally “high” weight. Your set point, unlike your brain, does not care about current fashion. You may say that a weight of 70 kg is too high for how you would like to look, higher than the height/weight tables tell you to be and, indeed, higher than your family doctor tells you to be. However, it may be exactly what your genes are telling you to be. This creates a real conflict. Fashion models are now 23% thinner than the average North American woman (see “Body Shame” article). A very small proportion of the population is naturally that size. The rest of us fight a “no-win” battle if we try to achieve that ideal.

Measuring set point

One frustration with the concept of set point is that there is no direct way to measure it. You cannot say that your set point is 65 kg. You can only estimate that you are at set point if you have been eating “normally” and participating in moderate exercise for about a year. It is estimated that it takes that long, free of dieting, to allow your metabolism and weight to return to what is normal for you. Of course, this applies to adults. The concept cannot be applied before growth has stopped. One other observation to make is to look at your family of origin. What size were your parents, their siblings or their parents? Predisposition to be a certain size “runs in the family” and ignores the current fashion!

There is controversy about what alters set point. Pregnancy, for example, increases the amount of body fat as well as weight. It is an area of research interest, looking at why a group of women revert immediately to their pre-pregnancy weight, and other women never do. Some researchers say that factors such as repeated dieting or certain drugs permanently elevate the set point, meaning that you will likely stay at this new higher “natural” weight. Others say that you are “artificially above set point” and will revert to your “natural” weight in time. At present, there are more questions than answers.

Healthy weights

So what does this mean? Does this mean you can never be thin? Does it mean that you can eat whatever you want and never gain weight? You can lose weight; you can gain weight. However, the implication of the set-point concept is that the farther you get from your set-point, the more difficult it is to continue, and your body will try to revert to your “natural” weight. Allowing your weight to remain stable, at your own set point, is healthier than the diet-regain cycle.

It means that you should consider weight as you consider height. Just as people have the genetic background to be short, average or tall, they have the genetic predisposition to be

thin, average or large. There are many positive activities to do instead of focusing on counting calories, eating “diet” food or exercising for weight loss. Choose activities that increase your sense of self-worth and efficacy. These may include fulfilling long time and long delayed desires, dreams and aspirations.

To summarize, there is good news and bad news. The good news is that you do not have to keep beating yourself up for being “weak-willed” or “lazy” as reasons for your inability to maintain weight loss. The bad news is that we are living in a culture which highly values thinness in women. We need to learn to accept ourselves and others at whatever they natural weight and to challenge the notion that thin people are necessarily happier, smarter and have more fun.

Additional Reading

Bennett, W. and J. Gurin. 1982. *The Dieter's Dilemma: Eating Less and Weighing More*. N.Y.: Basic Books.

Kano, S. 1985. *Making Peace with Food*. Danbury, CT: Amity Publishing Co.

Polivy, J. and C.P. Herman. 1983. *Breaking the Diet Habit*. N.Y.: Basic Books.

© NEDIC 1992 www.nedic.ca