

The Cycle of Disordered Eating

In the past it was believed that people with bulimia nervosa had a binge-eating disorder and that they dieted in order to counteract the effects of the binge. Although it is true that people sometimes fast after binging, it is now clear that dieting precedes and is the major cause of binge-eating in many cases. This makes sense physiologically, as binging is one way that your body can get food if it has been starved. If there is one marker that most individuals with anorexia nervosa or bulimia nervosa share it is that they have a history of extreme dieting.

One way that dieting causes binge-eating is by setting up a state of deprivation in the body. The body can only tolerate being deprived of essential nutrients for so long and then it rebels and overeats to compensate for what it hasn't been getting. How long it takes to develop binge-eating varies. Some people have the restricting type of eating disorder for years before developing binge-eating. However, some estimates suggest that approximately 50% of women with restricting anorexia nervosa go on to develop bulimia.

In the general population, a higher proportion of women who diet go on to develop binge-eating episodes. Even people who diet but who do not have an eating disorder find that they tend to binge (or eat too much of the foods that were forbidden on the diet) after having dieted for a period of time. This normally stops once they allow themselves to eat normal amounts of these foods as part of their regular eating.

Chronic dieting also makes it harder for an individual to maintain a healthy body weight because it actually alters metabolism. Some people find when they diet that the body resists losing those final few pounds. That is a strong indicator that you should not lose those few pounds.

In one study, fatter individuals were placed on a highly restricted 220-calorie "protein" diet for 15 days. Even at this extraordinary level of deprivation, they only lost, on average, 170g of body fat per day. Significant metabolic changes occurred even after such a relatively short period of semistarvation. Metabolic rate slowed by almost 1% per day, with a total reduction in energy expenditure at the end of the 2 weeks that ranged from 12% to 17%.

There is some evidence that this increased food efficiency may not be just an initial response to a cutback in calories. In rats, metabolic rate slows further as the length of starvation progresses. Thus, on a fixed weight-loss diet where caloric intake is reduced from 2000 to 1500 calories per day, the amount of weight lost is cut in half each month. If the body knows it has to exist on small rations, it slows its metabolic rate down to become more efficient. This is similar to what happens to animals that hibernate over the winter. Dieting reduces the metabolic rate by an astounding 15-30% and reduces the amount of energy expended during activity. This compensation is found irrespective of the body size of the individual.

There is some evidence to suggest that it is not only the length of dieting that alters fuel efficiency, but also the cycling between dieting and nondieting that has profound effects. With each new diet, weight appears to be lost more slowly and later to be regained more readily. With repeated attempts to restrict food intake, it apparently takes longer for metabolic rate to recover. In addition, metabolic rate drops more easily when there is a return to dieting. The body becomes adept at responding to marked fluctuations in intake by compensating more quickly for the next cycle of deprivation.

This has important implications for understanding the effects of binge-eating cycles. It is likely that weight loss becomes increasingly difficult each time a new diet starts, and that the calories taken in during binges are less likely to be burned as fuel and are stored more readily by the body as fat. Metabolic rate may remain suppressed because it has no real opportunity to recover.

Following a weight-loss diet, metabolic slowing makes it more likely that an individual will gain weight with a return to normal eating, since the body has attempted to use energy more efficiently and is therefore accustomed to surviving on a smaller amount of food. This weight gain often causes panic and a return to the restrictive pattern of eating. Often this becomes a vicious cycle. However, the only way to return the metabolic rate to normal is to resume eating normal meals and assume a healthy lifestyle which also includes a reasonable level of physical activity.

Vomiting and using laxatives often begin as ways of regaining control after "over-eating." These practices soon result in even greater breakdown in control since they "legitimise" bingeing ("It's all right to binge, because I can get rid of it all afterwards"). They may also contribute to a physical relief after the fullness of bingeing or eating, and the person may eventually feel she must vomit or use laxatives after every meal or at the end of every day to try to get back the sense of relief. Although she may initially lose weight through purging, this is most often temporary (and often relates to the balance of water in the body; see Module 'What are the Scales Really telling you'), and all this weight will be gained back, and sometimes more, because of the ineffectiveness of purging, and because a "cycle" of bingeing and purging gets set up. Although vomiting "solves" the short-term problem of getting rid of unwanted food that may lead to weight gain, it does not stop the hunger, and bingeing often results.

The bingeing-vomiting cycle usually escalates, and it is not uncommon for an individual to become depressed at the realisation that bingeing and vomiting are taking up many hours of every day, and preventing her from doing many other productive or enjoyable activities. The expense of food often becomes a financial burden, and the dangers of electrolyte disturbance become a significant health risk. Vomiting can also be inefficient, not removing all food from the stomach. This may mean that frequent bingeing and vomiting can in fact lead to weight gain.

Taking laxatives can also be part of this cycle. Regular laxative use can result in a physiological reliance on the laxatives. This may be because the bowel's normal muscle contracting ability

is impaired by repeated laxative use due to damage to intestinal nerves. Severe constipation or water retention can result when laxatives are not used, so that it seems that continuing to take the laxatives is the only way to continue “regular” bowel movements. Besides being extremely dangerous, laxatives are a completely ineffective method of trying to prevent the absorption of calories.