

An essay about obesity

[Health & Medicine](#), [Obesity](#)



An Essay About Obesity How Metabolic Rate Changes With Caloric Intake The processing of food is a choreographed dance between the hormones and peptides of appetite and satiation; brain and digestive organs, and the neural communication pathways that conduct the messages between the two.

Essentially, there are two phases of metabolic activity: Hunger (defined as “ the internal impulse for food seeking”) and satiation (defined as “ the feeling of fullness or satiation”) (Breedlove, Watson & Rosenzweig, 2010, p 400).

These two phases are mediated by numerous factors. Particularly, as the hypothalamus detects the input of glucose after the ingestion of food, it begins to shut down the appetite via hormone activity in the ventromedial hypothalamus (VMH), also known as the ‘ satiety center’ of the brain. In the bigger picture, over the course of many hunger-satiation cycles the body gathers and stores calories as adipose (fat) unless they are used and converted to energy used in maintaining homeostasis, gathering, preparing and digesting food, muscular activity and neural activity, increasing the Body Mass Index (BMI) as adipose cells are created. Based on the evolutionary need to maintain enough energy stored in the cells when food was scarce, when calories (food) is not forthcoming, the body lowers metabolic activity to continue storing a reserve of energy. This has two indications for treating weight gain or loss. In the case of overweight/obesity the metabolism lowers as a result of dieting (reduction of calories) making weight loss more difficult as the dieter must adjust for lower metabolic rates. In the case of anorexia, the lowering of metabolism and even the shutting down of essential organ systems is the body’s last-ditch attempt at conserving energy until the ingestion of food (Breedlove, Watson & Rosenzweig, 2010). In essence the

shutting down of vital organ activity is the body's means of dialing '9-1-1' for the input of more calories and nutrition. Risk Factors for Developing Obesity According to Xuhong, et al (2008), the results of a longitudinal study of adults in Shanghai, China, indicated that there are numerous risk factors for obesity. Middle-aged adults were at higher risk of developing obesity than older adults or young adults; females were at higher risk than males; male non-smokers were at higher risk than non-smokers but males who consume alcohol were at higher risk for becoming obese than their non-drinking peers. Each of these factors has a corresponding explanation, for instance, males have more lean muscle than females (Breedlove, Watson & Rosenzweig, 2010), while middle-age women are dealing with a combination of factors that include the hormonal changes of menopause, a more sedentary lifestyle and (often) decreased activity levels. However, older people who are more likely to have experienced the loss of teeth and thus, have difficulty chewing their food are at a decreased risk of obesity. Of interest is that both in China (Xuhong, et al, 2008) and in Turkey (Tanyolac, Cikim, Azwzli & Orhan, 2008) women with higher educational levels were significantly less likely to become obese. While the authors do not make conjectures about the causes of the relationship, it is possible that higher education includes becoming informed about nutritional needs, leading to healthier eating habits. Also higher education frequently translates to higher income allowing for the purchase of healthier (and more expensive) foods. Likewise, Huffman, Kanikireddy and Patel, (n. d) report that children living in single-parent households were at higher risk for developing childhood obesity and for African American children the risk was significantly higher than for White children living with

just one parent. Perhaps this is because of lower parental supervision of children's food choices or lower income dictating less healthy food choices in single-parent households (regardless of race). Other factors influencing body weight are caloric consumption, illness, metabolic rate, activity level, and genetic factors (Breedlove, Watson & Rosenzweig, 2010). How Cultural Influences Contribute to Eating Disorders Popa (2012) notes that " eating disorders have the highest mortality rate of any mental illness" (P. 163) and adds to the discussion that males represent only 10 to 15% of the anorexic/bulimic population---adding that more women than men are obese as well. While Breedlove, Watson and Rosenzweig (2010) explain the psychological relationship between media images of thin women and anorexia and bulimia, Popa (2012) continues the explanation by pointing out the obvious gender differential, the targeting of females by advertising, and labeling anorexia and bulimia as a ' feminist' issue that requires political action on both personal and cultural levels. She further hypothesizes a cause-and-effect relationship between media imagery of thinness and " hyper-consumerism" (a situation loosely defined as too many choices coupled with obligatory consumption) and considers this environment as one with a deep cultural sense of emptiness in which young females forge their identity. Furthermore, anorexia is seen as an attempt to turn away from these cultural influences while bulimia represents an ambivalent stance towards them and towards one's own body image. Sikorski, et al (2011) evaluate the role stigma plays in the discrimination against obese individuals in health care, employment and interpersonal relationships, explaining that when the causes of obesity (specifically, but eating disorders in general) are

considered as illness-related problem, then members of the general society are more willing to allocate public health care funding for rehabilitation of individuals with eating disorders than when causes are considered to be negative personal attributes (in the case of obesity: laziness, low intelligence and poor motivation). When discussing the cultural influences on eating disorders, particularly obesity, one cannot leave the discussion without a glance at the food industry, given the worldwide increase in obesity (Tanyolac, Cikim, Azwzli & Orhan, 2008; Xuhong, et al, 2008) and the relationship between added sweeteners and the increase in body mass (Sievenpiper, et al, 2012; Wang, et al, 2013). Within the food industry there is an emphasis of profit-making over producing healthy food choices (Nanci, n. d; Budgar, 2004; Berta, 2010). Food additives such as high-fructose corn syrup (HFCS) that promote obesity, cardiovascular illness, type II diabetes, (Pradhan, 2007) are permitted into foods that are widely consumed such as beverages, soups, candy, baked goods and a variety of canned or prepared foods. In addition, many times these additives are labeled poorly, not labeled, or are deliberately misleading so as increase sales and profits at the expense of consumer health. This leaves people with eating disorders, particularly those with obesity, squarely in the middle of a double bind. On the one hand, the media portrays thinness as an ideal for all (women) to achieve; while the culture blames overweight people for their lack of 'will power' to resist food temptations. On the other hand, the food chain is replete with unhealthy foods that contribute to eating disorders but the contents of which individuals cannot discern via product labels. In addition, foods with unhealthy additives are so profuse as to be unavoidable in the

market place. The most recent debacle over the labeling of genetically modified (GMO) foods (Sumbs, 2013) is exemplary of the level of food industry deception people struggling with weight and/or health issues must navigate in making healthy nutritional choices. References Berta, D. (2010). Not so sweet. *Nation's Restaurant News*, 44(10), 32. Breedlove, S. M., Watson, N. V., & Rosenzweig, M. R. (2010). *Biological psychology: An introduction to behavioral, cognitive, and clinical neuroscience*. (6th ed.) Sunderland, MA: Sinauer Associates, Inc. Publishers. Budgar, L. (2004). Earth fare bans controversial sweetener. *Natural Foods Merchandiser*, 25 (9), 9. Huffman, F., Kanikireddy, S., & Patel, M. (n. d). Parenthood-A contributing factor to childhood obesity. *International Journal of Environmental Research And Public Health*, 7(7), 2800-2810. Nanci, H. (n. d). Consumers are caught in sugar battle. *USA Today*. Palmeira, A. L., Markland, D. A., Silva, M. N., Branco, T. L., Martins, S. C., Minderico, C. S., & ... Teixeira, P. J. (2009). Reciprocal effects among changes in weight, body image, and other psychological factors during behavioral obesity treatment: a mediation analysis. *International Journal of Behavioral Nutrition & Physical Activity*, 61-12. doi: 10. 1186/1479-5868-6-9 Popa, T. (2012). Eating Disorders in a Hyper-Consumerist and Post-feminist Context. *Scientific Journal of Humanistic Studies*, 4(7), 162-166 Pradhan, A. (2007). Obesity, metabolic syndrome, and type 2 Diabetes: Inflammatory basis of glucose metabolic disorders. *Nutrition Reviews*, 65S152-S156. Sievenpiper, J. L., De Souza, R. J., Mirrahimi, A., Yu, M. E., Carleton, A. J., Beyene, J., & ... Jenkins, D. A. (2012). Effect of fructose on body weight in controlled feeding trials. *Annals of Internal Medicine*, 156(4), 291-W-83. Sikorski, C., Lupp, M., Kaiser, M.,

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