

Hunger Vs. Appetite: What's The Difference?

DR. LIBBY WEAVER

<http://foodmatters.tv/content/hunger-vs-appetite-whats-the-difference>

Hunger and appetite are two very different things. Hunger is the physical need for food whereas appetite is the desire for food. Hunger occurs with low levels of glucose in your blood, several hours after eating – it is a protective mechanism that ensures your body is adequately fueled. Appetite is the conditioned response to food - it is a sensory reaction to the look or smell of food. It is appetite that can lead “your eyes to be bigger than your stomach.”

Our appetite is closely linked with our behavior but also takes cues from our digestive tract, brain and fatty tissue. Having an increased appetite or having the feeling of wanting to “eat everything in your path”, in my clinical experience stems from your biochemistry and/or an emotional connection you have formed with food. When you consider the nature of your increased appetite, it is not often I would hear someone say they crave broccoli! The cravings are usually for highly processed food, high in refined sugars and poor quality fats.

Appetite is what controls your cravings and this is influenced by the sensory reaction to food so your appetite can increase or decrease depending on your taste preferences, what food is available to you, your health, and emotional state. Appetite can be increased or decreased by hormonal factors and stress. There is a saying that it is best to eat until you are just full, or still a little bit hungry and there is some truth to this. Most people are “nourished” well beyond when their natural satiety signals kick in. In the hectic world we live in now many people eat when they are distracted or on the run and they have literally lost the ability to listen to intrinsic satiety signals.

Satiety is also affected by our thoughts, feelings and emotional connections to food. The type of food we consume also affects it. For example, poor quality fats can leave someone with a feeling of satiety as fats are very satiating but all the person has actually consumed is something that has been deep-fried – it is full of energy but it has very little micronutrient value. I like to get people to think about the nutrient density of the foods they eat. For example, an avocado is a high fat food but it is a rich source of monounsaturated fats (good fats) and contains 19 essential vitamins and minerals.

Our metabolism is another factor which can affect our hunger. Metabolism, put simply, is the rate at which your body converts food to energy. Metabolic rate is governed by the thyroid gland. The thyroid is a gland located just at the base of the neck and the hormones it produces set the resting rate of energy production. Our metabolism is also influenced by muscle mass and hormones. An increased or “fast” metabolism is associated with increased hunger; this is specifically the case for athletes. The higher your muscle mass the higher your metabolic rate and muscle cells require more energy than fat cells in the body. In theory, people with a higher muscle mass would therefore have a greater level of hunger, however due to hormonal mechanisms involving insulin, leptin and ghrelin, as well as emotional factors this is not always the case.

The brain does not chase the feeling of a ‘full stomach’ it chases satiety signals to indicate that we have eaten. The brain receives signals from a number of different hormones that indicate when food is needed or not. Satiety signals sent to the brain after the consumption of fat or

protein as well as hormones; insulin and leptin, signal to the brain that you have eaten. These signals converge on dopamine-producing neurons in the hypothalamus of the brain. This changes dopamine output to the brain's reward centre, which in turn controls motivation for food. Dopamine transmits reward signals and low levels of dopamine have been associated with over-eating.

Regulation and the ability to self-control appetite has been the subject of much debate over the last decade. The hypothalamus in the brain is the main regulatory organ for human appetite. Leptin, a hormone produced by our fat cells, provides a negative feedback loop to signal when we need to stop eating. Increased appetite has been linked with hormonal imbalance, mental disorders and of course stress. Self-regulation is ideal, however many people can no longer differentiate between true satiety signals and psychological influences and of course hormonal imbalance will also influence appetite. Any woman who has experienced PMS knows how out of control sugar cravings can feel in the lead up to menstruation!

There is a lot of miscommunication and misguided use of appetite suppressants and artificial sweeteners these days. Many appetite suppressants act on the central nervous system and some have had to be withdrawn from the market due to their adverse cardiovascular risks. By using appetite suppressants you may be missing the message that your body is sending to you. There is a reason behind why you have an increased appetite. This reason might be nutritional, biochemical or emotional, but it is important to recognize your body's signal for help and to solve the underlying issues.

New research indicates that artificial sweeteners can actually stimulate your appetite, increase carbohydrate cravings and even stimulate fat storage, leading to weight gain. Fat and protein in food communicate relatively quickly between the mouth and the satiety centre in the brain while artificially sweetened foods don't utilize this mechanism so too much total food can be easily eaten.

Food cravings and appetite regulation are complex topics but I always encourage people to explore their emotional connections to cravings. Finish the sentence "Food is..." and explore your answers, a concept I explore in detail in my book *Accidentally Overweight*.