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# Heart to Heart

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## What Controls Appetite?

### What trigger hunger and satiety?

The urge to eat (hungry or not) is, to a large extent, controlled by hormones in our body. And these hormones fluctuate depending on how much sleep we get, what types of food we eat and how much calories we take in, and on how much physical activities we indulge in daily. Scientific researchers are focusing on four specific substances they call “fat hormones,” which our own endocrine glands in the body produce. There are hormones that make one eat and there are also hormones that signal the brain to tell the person to stop eating. These substances control hunger and satiety.

### Which is the “hunger hormone”?

The hunger hormone is Ghrelin, which is secreted by our guts (stomach and intestines). When its level goes up, we feel hungry and have the urge to eat. The level of Ghrelin goes up when we get less sleep or not enough sleep. This is the reason why those who are trying to lose weight should get adequate amount (about 8 hours) of sleep. An imbalance meal and stress also elevate the Ghrelin level. Food deprivation obviously increases the Ghrelin level, hence it is better to keep the level of this hormone on an even keel and not fluctuate too much by eating regularly (or even more than 3 times a day) but at a controlled total calorie ceiling, to maintain health and body weight. So, starving oneself is not a good way to lose weight, since this will lead to a Ghrelin “boomerang” in the latter part of the day.

### Which is the “satiety hormone”?

The opposite or counter-hormone, which is called Leptin, signals the brain when to stop eating. It controls the appetite. This “satiety hormone” is produced by fat cells in the body. When a person loses weight, the leptin level in the blood stream also goes down. As a result, there is a “rebound” weight gain. The best strategy in losing and maintaining a desired weight level is to lose in a slow and steady pace, about one to two pounds a week, and not more. In this manner, there will still be an effective level of leptin in the body to control the urge to eat.

## **What's the effect of imbalance meals?**

**High carbohydrate diet (rice, bread, sugar, pop drinks, ice cream, and other sweets) leads to a faster metabolism of these food items that have high glycemic indices and floods the blood stream with high glucose level. This is why those who eat a lot of these food items (rice is a great culprit!) are feared to have a higher risk of developing type 2 diabetes. Personally, much as I loved rice (a 3-meal rice addict), I had decided to give it up following all the convincing scientific evidence today of its link to diabetes. Could this be the reason why the incidence of diabetes is very high among Asians, especially among Filipinos? The research on this is still in progress.**

## **How about emotional stress?**

**When one is high on stress and low on energy, the body tries to compensate by producing more cortisol hormone. This substance mobilizes the blood sugar transformation (glycogen into glucose) and increases the blood sugar level to provide energy. But it makes the person hungry. And so the person eats more. The connection between cortisol level and obesity is not a settled question yet. Physical stress, like regimented physical exercises daily, is another story. This has a positive effect on our body in more ways than one. While it also raises the cortisol level and increases blood sugar, exercise burns calories and also helps put our body hormones in good balance. As a matter of fact those who do daily exercises have lower risk of developing heart attack, stroke, diabetes, and cancer.**

## **What is Obsetatin?**

**This is a hormone recently identified by researchers at Stanford. This substance has been shown to slow down the digestive process. While the studies on Obsetatin are still ongoing, it is postulated that this hormone, like the first three above, could be held in check by adequate sleep, balanced diet, physical exercise and minimizing stress.**

## **Are Appetite Suppressants Safe?**

**Most appetite control pills, juices, solutions and powders on the market are not physiological and unnatural way to suppress (by force) the appetite for weight control. While they are readily available and very popular, they have potential adverse side effects on the heart, liver, kidneys and brain in the long haul. Some serious complications, and even deaths, have been reported from the use of these diet substances. Since greater calorie intake than output is the cause of increase in body weight, the safest, most natural, strategy is to eat less and burn more calories with physical exercises, making the output of calories (energy) greater than the intake of calories (food). The use of appetite suppressants could be dangerous. Consult with your physician before using any of them.**