

Hunger & Satiety Hormones

signalling when to eat and when you are full



What are hunger and satiety hormones?

The human body has a complex network of hormones that act as signalling messengers to the brain. In the case of hunger and satiety, ghrelin is the hormone that increases appetite, and leptin is the hormone that decreases your appetite. Ghrelin is released by your stomach when it is empty, signalling to your brain that it is time to eat. Ghrelin is fast-acting and should decrease dramatically when you are full. It is at its highest right before you eat, and its lowest about an hour after a meal. Ghrelin signaling also plays crucial roles in glucose- and energy-homeostasis helping to regulate glucose levels during periods of fasting or starvation.

Leptin lets you know when it is time to stop eating. It is a hormone released by your adipose tissue (fat cells) that tells your brain when your body has had enough fuel and can start burning fat to create energy. It is a longer-term energy balancing hormone and is thought to be the more significant hormone out of the two in terms of appetite, energy production, and weight management.

Why are these hormones important?

Together these two hormones are the control system for appetite, and help regulate the amount of food needed and frequency of eating. If either one of these hormones become dysregulated it can lead to disrupted eating behaviour, cravings, inability to feel satiated, energy highs and lows, and difficulty in maintaining a stable body weight.

How can these hormones become disrupted ?

Hormones can become imbalanced for a variety of reasons including diet, inflammation via overweight and obesity, genetic predispositions and health conditions. Lifestyle triggers such as poor sleep, stress, fatigue, lack of physical exercise can also contribute.

