

# Ask Leyla: What is the relationship between hormones and weight loss?

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**Q:** One of the weight loss systems advertised on radio claims that you have to balance hormones in order to lose weight. What exactly does this mean?

Which hormones are involved the most in weight loss (or gain), and how can I keep them in balance?

**A:** While I'm not a fan of commercial weight loss diets, and neither, I might add, is Dr. Hoffman, here's the lowdown on the role of hormones in weight loss.

Having a proper balance of hormones is critical to good health and a prerequisite for weight loss. First and foremost is the hormone insulin.

Hyperinsulinism is a primary cause of weight gain or inability to lose weight. Too much **insulin** is secreted by the pancreas in response to increasing blood sugar from a carbohydrate rich diet (sugars and other refined carbohydrates). Because insulin is a fat storage hormone, it will keep your metabolism in chronic fat storage mode.

Next is **cortisol**. Cortisol is a stress hormone which is secreted not just when we're feeling stressed and overwhelmed, but when we're not getting enough sleep, or taking in too much caffeine or other stimulants. Cortisol contributes to abdominal obesity and accelerates the aging process, including thinning skin and bones.

**Leptin** is a hormone secreted by fat cells which sends the message to our brain to stop eating, the message being, "we have enough stored reserves." But the message leptin sends gets muddled when consuming a diet high in sugar, causing leptin resistance. Overweight and obesity is a hallmark of leptin resistance. And the fat storage continues since insulin is still hanging around thanks to all those carbs.

**Ghrelin** is a hunger hormone secreted primarily in the stomach. It is released

when the stomach is empty, signaling the brain that it's time to eat. Secretion of this important hormone ceases once the stomach is full. Ghrelin is also produced during times of stress—like staying up too late and not getting enough sleep. This may be a primary reason sleep deprivation increases cravings for carbs. Add cortisol to the equation and voila—belly fat!

**Estrogen** dominance has become more prevalent with exposure to all the toxic xenoestrogens in the environment. Plastics, bisphenol A, phthalates and parabens are just a few examples of “gender benders” causing endocrine disruption in not just women, but men too. Excess belly fat is also a source of estrogen which aromatizes any circulating testosterone, turning it into more estrogen, causing diminishing muscle tone and gynecomastia (breast development) in men.

An underactive thyroid is a common and independent cause of weight loss resistance because thyroid hormones literally run the show on metabolism. Weight gain is a classic symptom of this condition. You can read more about hypothyroidism [here](#).

To your health!