



Fasting vs. Caloric Restriction

What's the difference?

Calories are simply a unit of food energy, just as dollars are units of money. Calories provide the body with the energy needed for various metabolic functions.

Consider the following analogy:

Suppose you went from being a full time to a part time employee, so your salary got cut by 30%. You'll need to cut expenses, perhaps by taking the bus more, or eating out less. The same thing happens when you follow a calorie-restricted diet, but continue eating multiple times per day. Your caloric 'budget' got cut by 30% so you have less to spend on metabolic costs like generating body heat, or cardiovascular or cognitive functions.

It has been repeatedly shown that a diet focused purely on calorie reduction causes a slowdown of the resting metabolic rate (RMR), also known colloquially as 'starvation mode'. Not only do you feel poorly, you don't lose any weight over the long term. Doesn't fasting do the same thing? Not at all.

Imagine that you became a part-time employee, so you found another job that made up for the 30% reduction in salary. You no longer need to cut expenses because your overall salary remains unchanged. During fasting, you are eating no food, so your body draws the energy it needs from an entirely different source – your body fat, which is

simply the stored form of food calories from days past. With plenty of energy available, your body has no need to reduce its expenditure of energy and RMR remains unchanged.

The difference between chronic calorie restriction and fasting is that eating constantly, but fewer overall calories does not allow the hormonal changes needed to allow the body to access the body fat calories. Therefore, in order to meet the caloric deficit, the body must reduce its expenditures. It is ironic because chronic calorie restriction is well-known and proven to put you into 'starvation mode', but fasting, the controlled form of starvation, does not.

Fasting allows you to switch fuel sources from food to stored food – i.e body fat, primarily by reducing insulin. At the same time, other hormones, such as noradrenalin and sympathetic tone goes up, allowing the maintenance of normal metabolism. One study found fasting for four days caused the metabolic rate to increase by 10%. The body wasn't shutting down, it was actually ramping up.

When it comes to fasting, 'starvation mode' is just a myth.