

The truth about metabolism

Is a sluggish metabolism to blame for your weight gain?

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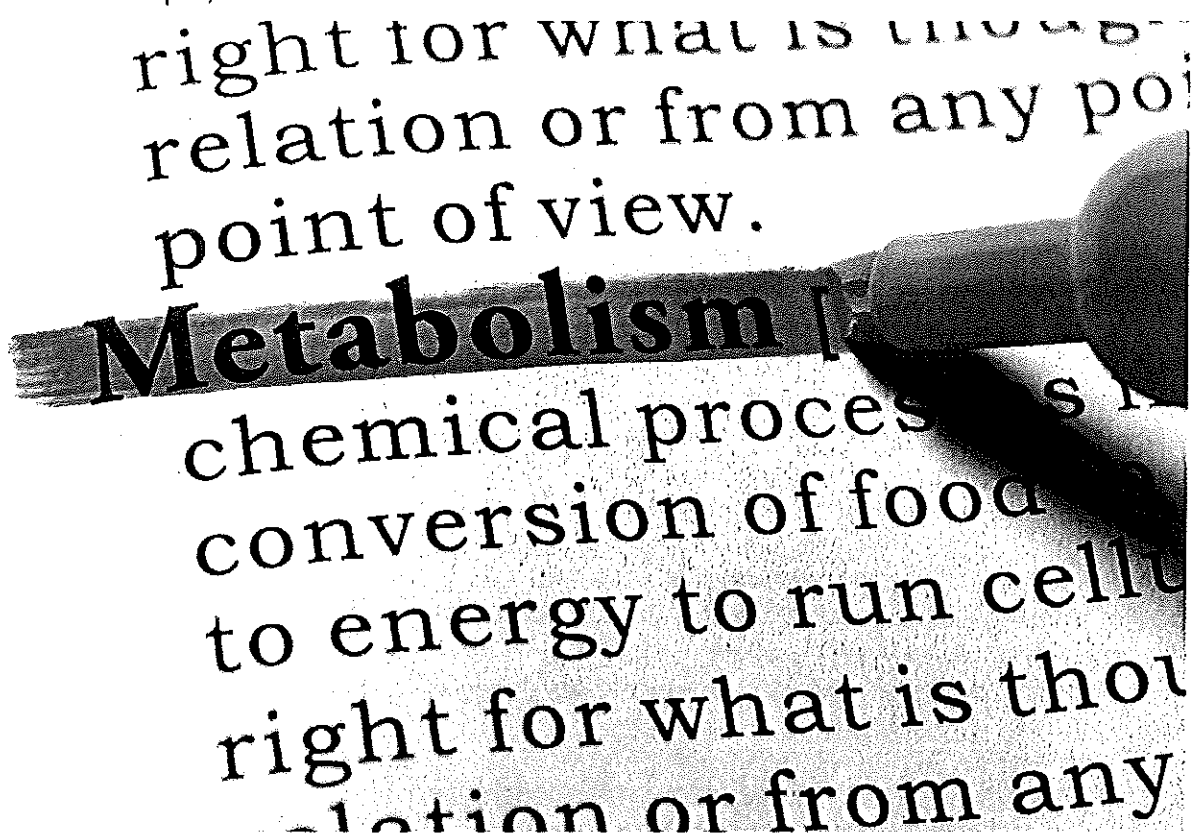


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You no doubt have heard of metabolism and may even have a vague idea of what it is. But there are a lot of myths related to the impact metabolism has on your health, especially in terms of weight loss.

In simple terms, metabolism is the internal process by which your body expends energy and burns calories. It runs 24/7 to keep your body moving, even when you're resting or sleeping, by converting the food and nutrients you consume into the energy your body needs in order to breathe, circulate blood, grow and repair cells, and everything else it does to survive.

This process works at different intensities in different people. How fast your metabolism works is determined mostly by your genes.

"People might have fast, slow, or average metabolism, regardless of their body size and composition," says Dr. Chih-Hao Lee, professor of genetics and complex diseases at Harvard's T.H. Chan School of Public Health.

Age also affects metabolism, as it can slow over the years, even if you start out with a fast metabolism. Differences in metabolism speed are evident in how easy or hard it is for people to gain or lose weight. A slow metabolism burns fewer calories, which means more get stored as fat in the body; that's why some people have difficulty losing weight by just cutting calories. A fast metabolism burns calories at a quicker rate, which explains why some people can eat a lot and not gain extra pounds.

But you can't entirely blame a sluggish metabolism for weight gain, says Dr. Lee. "The reality is that metabolism often plays a minor role," he says. "The greatest factors as you age are often poor diet and inactivity."

Rev up your engine

Is it possible to speed up a naturally slow metabolism, or rev up one that has become sluggish over time? "You can manipulate your metabolism to a degree," says Dr. Lee. "It is often a small change that may help you burn more calories. That, along with adopting a healthier diet and making sure you get enough exercise, may give people the extra push they need to lose and maintain weight." For example:

Pick up the pace. Add some high-intensity interval training to your regular routine. After a period of interval training, your metabolism can stay revved up for as much as a full day. For example, when you're walking or jogging on a treadmill or outside, speed up for 30 to 60 seconds, and then slow to your usual pace; repeat the cycle for eight to 12 minutes.

Eat protein and do weight training. Your metabolism increases whenever you eat, digest, and store food, a process called thermic effect of food. Protein has a higher thermic effect compared with fats and carbohydrates because it takes longer for your body to burn protein and absorb it.

It's not clear how much of an effect protein has on metabolism, but studies suggest the best approach is to combine adequate protein intake with weight training, which increases muscle mass — and that also can boost metabolism. Use this online calculator to determine your exact daily amount of protein: www.health.harvard.edu/dri.

Drink green tea. Studies have found green tea contains a compound called epigallocatechin gallate, which may increase the calories and fat you burn. A 2011 meta-analysis published in *Obesity Reviews* found that consuming about 250 milligrams of epigallocatechin gallate (the amount in about three cups of green tea) helped boost metabolism enough to burn an average of 100 extra calories a day.