### What Makes Up Your Metabolism?

20% Non-Exercise Adaptive Thermogenesis Metabolic Rate

10% Exercise

WomensHealth

There are three things contribute to metabolism: basal metabolic rate, non-exercise adaptive thermogenesis, and exercise.

Here's where it gets technical: Your basal metabolic rate (BMR) is the number of calories your body burns just to stay alive—i.e., keeping your organs and bodily functions working properly, and turning food into usable energy—and it accounts for about 70 percent of your metabolism.

Everybody's BMR is different (you can estimate your own with <u>this</u> <u>calculator</u>) but keep in mind, it won't be totally accurate, since there are so many factors.

Non-exercise adaptive thermogenesis (NEAT) is the next part of your metabolism, and it's basically made up of those extra things your body does that aren't really exercise, but that still cost energy (think: fidgeting, shivering, and all the things you do to go about your day, like walking and standing). It accounts for about 20 percent of your metabolism, and it can vary from day to day depending on things like what you're doing to what you're eating.

Actual exercise burns additional calories on top of these things, but it only accounts for about 10 percent of most people's metabolisms—so, while exercise still definitely matters, the calories you burn *during* exercise only make up for a small amount of your daily metabolism.

# Your metabolism is actually pretty hard to boost or change.

That's because "boosting metabolism" doesn't really refer to exercising more intensely to burn more calories, standing instead of sitting, or sneaking in lunchtime walks.

Instead, it's more of a marketing term says Erik Bustillo, R.D., L/DN, CISSN, CPT, that means "to increase calories burned when not exercising."

## It's not sexy or surprising, but eating a balanced diet is one of the smartest ways to maximize your BMR.

A diet that includes fat, carbs, and protein will keep your body functioning optimally, and will also keep your hormone levels in check (out-of-whack hormones can lead to weight gain and certain health problems).

Part of what accounts for your BMR is the thermic effect of food—a.k.a., how much energy your body expends digesting the food that you eat—and some foods take more energy to digest than others.

Getting adequate protein and fiber can definitely help increase your metabolism.

"Protein burns more calories than carbs and fat," says Bustillo. About 30 percent of the calories in protein will go towards digestion and absorption, whereas that number is only about 10 percent for carbs, and even less for fats. Fiber's another nutrient that costs a little more energy, says Bustillo—so, getting adequate protein and fiber can definitely help maximize your BMR.

This doesn't mean you should shun fat and other carbs, though. Both are important for keeping your body functioning properly—and, remember, it's these bodily functions that make up most of your BMR in the first place.

Also, no vitamin or nutrient has the power to increase your BMR on its own, but being deficient in any of the essential vitamins and nutrients can have a negative effect. And, certain foods—caffeine, green tea, and capsaicin (peppers)—might boost your metabolism slightly, but the effect is negligible, says Bustillo.

### Another thing to keep in mind: Eating too little (or drinking alcohol) can actually decrease your BMR.

This is known as metabolic adaptation, says Bustillo. When we drastically reduce our calories for an extended period of time, our bodies adapt to needing that smaller number of calories, which decreases our BMR. The longer this underfeeding happens, the further our BMR may drop.

"People who have yo-yo dieted all their lives may experience much difficulty losing weight later in life due to this metabolic adaptation," says Bustillo. "At this point, just about every weight loss program will not work or will take really long to work, because of the adaptation to such a low intake of food."

#### Alcohol can actually limit the amount of calories you burn.

Alcohol might also decrease your BMR. "Alcohol is registered as not good for the body upon consumption, which results in the body seeking to eliminate it as quickly as possible," says Bustillo.

So, when you have alcohol in your system, your body immediately starts working to get break it down and get rid of it, so you're not metabolizing food as quickly or efficiently. "Chronic recreational alcohol over-consumption (including alcoholism ,which is an illness) can certainly impact caloric expenditure," he says.

## The other effective way to maximize BMR is by exercising regularly, ideally through both HIIT and heavy lifting.

"Evidence suggests that high intensity interval training is one of the most advantageous forms of exercise," says Sharp. "It burns more calories in half the time as steady-state cardio, and your calorie burn may remain elevated for up to 24 hours after exercise—as many as 200 to 300 calories on average, says Bustillo.

But, Bustillo cautions against hanging too much hope on this: "Many companies that sell the 'after burn' or 'metabolic workouts' are just utilizing a marketing strategy with [a grain of science behind it]," he says. "They're not technically lying, because training *can* increase BMR [in the 24 hours postworkout], but it's not by more than 200-300 calories on average."

### Muscle burns six calories per pound, while fat burns two calories per pound.

The other way that exercise can help boost BMR is by increasing muscle mass. "Resistance training is advantageous for increasing lean mass, which indirectly will increase [BMR]," says Sharp. But, while it's true that muscle burns more calories than fat, even lean mass isn't a magic bullet way to boost your daily calorie burn.

Why? Because muscle doesn't actually burn *that many* more calories than fat. "Previous data suggests about six calories per pound of muscle, versus two calories per pound of fat mass," says Sharp. "When you do the calculations, it's not a significant amount of calories."

Still, those extra four calories can cumulatively make a big impact over time—and the ability to gain, maintain, and prevent the loss of lean muscle mass can have other weight loss benefits, like maintaining hormone levels linked to calorie burn, says Sharp.

# But exercising in order to increase BMR comes with a caveat, too.

It seems like exercising hard each and every day might be the key to maximizing your BMR—but working out a ton might also inhibit your metabolism.

Taking enough recovery time between workouts, and getting adequate sleep, are key, says Sharp, because it gives your muscles a chance to rebuild and your hormones a chance to return to their normal state.

### You may need to set aside weight loss goals to build muscle—and increase your metabolism.

The way you strength train matters too: "One thing [many women] do wrong is that they lift light weights for more reps. This will not efficiently build muscle," says Sharp. "The most effective approach is to lift heavier loads (80% maximum) for 6 to 8 reps." This style of lifting is best suited to hypertrophy (a.k.a., an increase in muscle mass).

You'll also need to eat more, which might mean setting aside weight-loss goals while you build up your muscle mass. "Women are notorious for consuming too few calories, or even expending more that consumed with cardio." "The key thing for putting on muscle is the need for a caloric surplus," says Sharp.

Basically, you need to eat more calories than your body needs, so that it can use the extra to build muscle size.

The bottom line: There's no quick-fix way to boost your metabolism, but you can make small changes to your daily habits—like walking instead of driving or standing instead of sitting—and add high-intensity and muscle-building exercises, to help increase the amount of calories you burn each day.