

## PVBM Healthfirst

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### HOW TO BURN FAT

Most weight loss gimmicks aren't so obvious. Like this piece of advice of weight-watching lore: If you want to lose fat, exercise long and slow. It's a tempting gimmick for all, says *Jay Graves*, an applied physiologist with the *University of Florida at Gainesville* - especially if you know just enough about how muscles burn fuel to get you into trouble.

Body fuel comes in two flavors: carbohydrate and fat. Carbohydrate is stored in the muscles and the liver; fat is stored around the organs and under the skin. Your body can only store a little carbohydrate, but nearly an unlimited supply of fat. Which fuel your body chooses at any given moment depends on how much energy it needs and how fast it needs it, says *Robert Layzer*, a neurologist with the *University of California at San Francisco*.

Anytime you exercise in overdrive, out of breath intensity, your body relies more on its carbohydrate stores because they are right in the muscles and ready to go. And unlike fat they are converted into energy without oxygen, which may be in short supply when exercise makes you breathless. But if you are walking or jogging rather than sprinting, your body will also begin to call on fat stores for fuel.

The mistake lies in assuming that burning fat as fuel automatically means you'll lose more body fat. "People get sidetracked by thinking that they can trick their bodies into losing more fat at low intensity," says Graves. "But there's no advantage to burning more fat as fuel." The only way to lose more body fat is to burn more calories than you take in.

Say you have a car with two fuel tanks, tank F and tank C. You drive 100 miles drawing equally from both tanks, using a half tank of each. When you stop at the service station, you get ten gallons of gas, five in each tank. When you stop and fill up again, you need another ten gallons of gas. But since the C tank is full, all the gas goes in the F tank. So if you're interested in weight loss, it doesn't make any difference whether the calories you burn come primarily from fat or from carbohydrate.

## So What Is the Best Way to Burn Fat?

You actually burn relatively few calories during a workout. But exercise helps turn your body into a calorie-guzzling machine. Studies show that aerobically fit people have more mitochondria, the tiny boiler rooms inside muscle cells where fat is turned into energy, than do people who are out of shape. That means they can work longer and harder without huffing and puffing and feeling exhausted. It also means that, if they continue eating the same amount, they're likely to burn more calories than they take in.

But aerobic activity isn't the whole story. Another way to make your body burn calories faster is to add some sort of resistance training to your exercise routine such as lifting weights or working out on weight machines. Both fat and muscle require energy to maintain themselves. But muscle is "expensive" tissue, says *Wayne Wescott*, the national *YMCA's* strength training consultant; a pound of muscle burns about 50 calories a day just to stay alive. Fat, on the other hand, is "cheap" needing just two calories per day. So the more muscle you have, the more calories you burn just sitting around clicking the buttons on your television's remote control.

Even the *American College of Sports Medicine*, which once touted the benefits of only aerobic activity for fitness, has added strength training to its guidelines. It suggests two weekly sessions of eight to twelve repetitions of eight to ten exercises that condition major muscle groups such as the thighs, back, and shoulders.

This doesn't mean that you need to go out and kill yourself every day. You just need to perform some regular exercises to stimulate the muscles to grow and the heart to beat faster," says Graves. "People are always looking for a gimmick. But there's no substitute for consistent hard work".