

How Does Fat Leave Your Body When You Lose Weight?

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The Basics of Weight Management

As the old saying goes, "calories in, calories out." And so it is with managing your weight. For the majority of the 191 million American adults who are obese, struggling with their weight is a daily occurrence. In 2008, overweight men and women spent more than \$109 million on the grapefruit, Atkins, South Beach, cabbage soup and hundreds of other fad diets in an effort to lose extra fat. Some work, some don't. But what happens to all that fat when you lose it? Scientists and [exercise](#) physiologists will tell you that the most basic unit of energy is the calorie or, more accurately, the "kilo-calorie," abbreviated as Kcal. Kilo-calories are units of heat and can either store or produce energy. One pound of fat is equal to 3,500 Kcal. So, in order to lose 1 pound of fat, you must either eat fewer calories or find a way to burn 3,500 Kcal with physical activity. The best approach is to do both.

How Fat Is Stored

When you eat food, it is broken down in the stomach and intestinal tract into fat, carbohydrate and protein. If you live an active lifestyle, most of the calories from the food you eat will be burned before it has a chance to be stored. If you lead a sedentary lifestyle, any calories that aren't burned will be stored, mostly in the form of fat.

What Happens to the Fat

Some of the fuel you use for maintaining normal body functions and for exercise comes from two ready sources: glucose and triglycerides. Both circulate in the blood, so they are easily available as fuel sources, even though they are in relatively short supply. More abundant supplies are found in the liver and stored fat cells.

If the demands of your activity are greater than what circulating fat and glucose can supply, your body will need to dip into the stored energy in the liver and fat cells. Hormones in the body activate an enzyme called lipase that tells the fat cells to release triglycerides. The triglycerides are broken down into glycerol and free fatty acids and enter the bloodstream. The liver recycles the glycerol, and the muscles use the free fatty acids for energy. When the free fatty acids are consumed by working muscles and other tissues, they are converted to heat, water, carbon dioxide and adenosine triphosphate, or ATP. Your body releases heat through your skin, water as you sweat and carbon dioxide as you breathe; it converts the energy in the bonds of ATP into energy your body can use.