

Diet Can Help to Sustain Energy

There is no question that what, when, and how much you eat influences energy levels throughout the day, and sometimes poor energy reserves respond well to some basic dietary changes. Swimmers who work out in the afternoon might especially benefit from eating in a way that sustains energy levels, allowing them to get the most out of their workouts.

An eating pattern that helps to maintain energy is also one that delays hunger. Hunger is the body's signal that energy reserves are running low. Here are three principles of eating for energy and appetite control:

1. Balance protein, carbohydrate, and fat at each meal. Eating a source of protein along with carbohydrate foods helps to slow down digestion a bit, which is probably why protein foods are often considered to be *sustaining* foods, “stick-to-your-ribs” kind of foods. The combination of fat with protein effectively stimulates release of a hormone called CCK. It is also known as the satiety hormone because CCK signals the brain that food's been eaten; “we're not hungry anymore.” Although the body needs some fat to function optimally, the amount needed is very small, and most protein foods, such as meat, fish, poultry, and dairy foods, already contain fat. In other words, you don't need to go out of your way to add fat in the form of mayonnaise, butter, margarine, and gravy.

2. Choose high-quality carbohydrates over those that are highly processed and refined. That means choosing whole grains over white flour products, and generally selecting foods that are close to the way nature designed them. Refined, or simple carbohydrates, raise blood sugar levels more readily than foods that still have their fiber component intact. High blood sugar stimulates the hormone insulin, whose job it is to bring the blood sugar levels down. Blood sugar is the body's main energy source, however, so the goal is to eat foods that will not stimulate too much insulin. When blood sugar descends too quickly, the body is left feeling hungry and tired.

3. Choose solid rather than liquid calories. Sweet drinks are rapidly absorbed, raising blood sugar and stimulating insulin release. Although they provide a quick pick-me-up, there is no enduring energy value. Also of interest are the numerous studies that have demonstrated that liquid calories have a different effect on appetite: Liquid calories (soda, sweet tea, fruit juice) simply don't seem to register as calories consumed. They do not trigger the satiety center in the brain, as solid foods do, signaling when it's time to quit eating.

A good rule of thumb, which incorporates these principles, is to aim for a source of protein, high-fiber starch (carbohydrate), and vegetables at each lunch and dinner. A lunch that meets this guideline might be turkey (protein) on whole-wheat bread (starch) with some carrots and celery sticks (vegetables).

Swimmers, you can learn what foods and eating pattern sustains energy levels most effectively by paying attention to appetite. If you find yourself getting hungry too soon, look back to the last meal, and even to the foods with which you started the day. Make some changes to incorporate more protein and fewer refined carb's, and see if you notice a difference. Take note of how your workouts go on a day when you feel hungry. Optimizing energy levels through attention to diet can make a difference in workout quality, which usually translates to better competitive times.