

FUEL YOUR DAY

SECRETS TO SUSTAINED ENERGY

GET THE RIGHT KIND OF FUEL: SUSTAINED ENERGY

Sustained energy refers to choosing food as fuel that provides a slow, measured release of energy that lasts hours, avoiding unwanted energy slumps. Healthy foods that provide a combination of protein, fiber and fat deliver this type of energy because the body takes longer to digest, absorb and metabolize them.

Simple carbs or high-sugar foods, such as soda, cookies and cake, will have the opposite effect, since their energy is metabolized quickly, creating sudden spikes and drops in blood sugar levels, which can result in a “sugar crash.” Protein and fiber are preferred sources for steady energy release and almonds, with 6 grams of plant protein, 4 grams of filling fiber plus 9 grams of monounsaturated fat in every healthy handful, are a true sustained energy snack.

WHY SUSTAINED ENERGY MATTERS

Steady Blood Sugar Levels

Eating whole foods with fiber doesn't sound like anything new for good health, but their sustained energy has multiple benefits. The slower metabolizing of fiber-rich foods results in a more even blood glucose level, reduced appetite, and a longer feeling of fullness. Maintaining a steady blood sugar level is important for all people and of course, of greater importance for those with prediabetes or diabetes. Advice for people with diabetes focuses on eating complex carbohydrates (carbs that contain fiber) to control their blood sugar levels as well as the right balance of protein and good unsaturated fats.

Long term research¹ shows the beneficial effects that almonds have on blood sugar regulation and cardiovascular health when included as part of a healthy diet. During a six-month study of 50 Asian Indians with type 2 diabetes and elevated cholesterol levels, participants ate a diabetes-compliant diet and were asked to walk for 45 minutes/5 days a week to standardize their physical activity. They were instructed to maintain the same level of activity for the rest of the study.



Baseline measures on blood sugar and cardiovascular markers were taken. Participants were then instructed to include unroasted almonds (providing 20% of their caloric intake) to their diet. Almonds were substituted for fat (such as cooking oil and butter) and some carbohydrates. Following the almond intervention, researchers found that hemoglobin A1C (an indicator of long-term blood sugar control) improved in participants, along with other cardiovascular measures (waist circumference, waist-to-height ratio, total cholesterol, triglycerides, LDL cholesterol and C-reactive protein). Limitations of this study are the absence of insulin measures and a shorter duration of the control treatment than the test treatment. However, the latter had minimal impact, as the results obtained in this study are comparable to studies with equivalent control and treatment intervention durations. The role of almonds in insulin management requires further investigation.

Good news about fat. U.S. Dietary Guidelines recommend that the majority of your fat intake be unsaturated. One serving of almonds (28g) has 13g of unsaturated fat and only 1g of saturated fat.

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Staying Fuller for Longer

Satiety, or feeling full, affects one's food behavior for the entire day and has been correlated with reduced caloric intake. Eating foods with a slow release of energy helps prevent overeating later in the day and reduces the potential for making unhealthy food choices.

One research study² among 32 healthy adult women over the age of 35 looked at the effect of almonds on satiety and calorie intake and found that a mid-morning snack helped control appetite and resulted in reduced calorie intake during the rest of the day. The study looked at the effects of eating 1 ounce and 1.5 ounces of almonds compared to no snack on ratings of appetite and fullness, and overall calorie intake at lunch and dinner, when asked to eat until they were

comfortably full. Study participants felt the least hungry and ate significantly fewer calories at lunch and dinner when eating the 1.5-ounce almond snack. What's more, despite eating approximately 170 or 260 calories (1-1.5 ounces) from almonds, there were no differences in total daily calorie intake, indicating that participants naturally compensated for the additional calories consumed earlier in the day. One study limitation is that a control snack food of equal energy and volume was not tested, which limits the interpretation of almonds increasing satiety in a dose-dependent manner since the effect could be due to the energy ingested and necessarily to the almonds.

5 TIPS TO SUSTAINED ENERGY

Know Your Sustained Energy Sidekicks

When aiming to eat for sustained energy, choose foods that fall into one or more of these categories:

- Offer a good source of fiber (at least 3 grams per serving)
- Provide protein (can be plant- or animal-based sources)
- Contain healthy unsaturated fats

Almonds are a smart choice because they contain satisfying fiber, deliver 6 grams of energizing plant protein and offer "good" unsaturated fat with only 1 gram of saturated fat per one-ounce portion. Other fiber-rich options are oats, whole grains, lentils, beans and fruit to name a few. Protein picks can be either plant-based sources like almonds and tree nuts or animal sources such as eggs, poultry and meat. When looking at fat content, look for products with mainly unsaturated fat that are limited in saturated fat. And, since fat has more calories per gram than protein or fiber, it's important to be mindful of one's total calorie needs.

Use Snacks to Keep Energy Up

Research shows that having smaller mini-meals or snacks is a smart strategy to keep your energy levels steady, while maintaining a healthy weight³. With athletes in particular, fueling several times a day is recommended by the International Society of Sports Nutrition. For most people, choosing healthy snacks will keep them going longer between meals.

Hit Your Fiber Stride

Fiber is a true workhorse, keeping your digestive tract healthy and delivering a slow release of energy. Women should aim for 28 g per day while men require 34 g per day.



Steer Clear of Sugar Crashes

Avoid foods that raise blood sugar such as simple sugars or refined carbohydrates like potato chips, white bread and sugar-sweetened beverages. Since simple carbs are typically low in fiber, blood sugar spikes and then will come down or crash, leaving you feeling less energetic.

Don't Forget to Move

Although we might think of calories first for energy, getting enough physical activity, even as little as 20 minutes per day, helps one feel energized. Don't skip this part of your day when wanting to conquer fatigue.

1. Gulati S, Misra A, Pandey RM. Effect of almond supplementation on glycemia and cardiovascular risk factors in Asian Indians in North India with type 2 diabetes mellitus: A 24-week study. *Journal of Metabolic Syndrome and Related Disorders*. 2017 Mar; 15(2):98-105. doi: 10.1089/met.2016.0066.

2. Hull S, Re R, Chambers L, Echaniz A, Wickham SJ. A mid-morning snack generates satiety and appropriate adjustment of subsequent food intake in healthy women. *European Journal of Nutrition* 2014. Aug;54(5):803-10.

3. Aljuraiban G et al. The impact of eating frequency and time of intake on nutrient quality and body mass index: the INTERMAP study, a population-based study. 2015; 115(4): 528-536. [https://jandonline.org/article/S2212-2672\(14\)01764-X/abstract](https://jandonline.org/article/S2212-2672(14)01764-X/abstract)