

## What's the Deal With Complete and Incomplete Protein—and Does It Even Matter?

*Good news: you (probably) don't need to stress about eating complete protein foods.*

If you're a big fan of *quinoa*, *chia seeds*, or *hemp seeds*, you may have heard them touted as **complete proteins**. In a nutshell, that means *they contain all of the nine essential amino acids required to build and repair protein tissues in the body*. But the question is: does that matter?

The short answer is no, not really. But first, let's back up a step.

Animal-based foods like eggs, dairy, fish, and meat are complete proteins; while most plant foods are incomplete—meaning certain amino acids are missing from the protein puzzle.

Some people believe that in order to utilize plant protein efficiently, you must eat so-called "complementary proteins" together. Rice and beans are a good example of complementary proteins, because the amino acids that are missing from beans are found in rice and vice versa.

However, according to the Academy of Nutrition and Dietetics, the terms "complete protein" and "incomplete protein" are misleading. That's because *if a person consumes enough calories from a healthful, varied diet—even if those calories come exclusively from plant-based foods—they should get an adequate supply of essential amino acids within a 24-hour period*.

Your liver helps by storing various essential amino acids over the course of a day for use later on. In other words, you don't need to worry about eating complementary plant foods simultaneously, as long as you're eating a variety of nutritious foods (and not just vegan junk food).

So no, you don't need to eat quinoa or chia at every meal; or memorize lists of foods to pair. But if you are vegan or lean toward a plant-based diet, to meet your protein needs by the end of the day *it's important to eat quality calories from a mix of whole foods*. Here are some examples of snacks and mini-meals that can help you consume a broad spectrum of the nutrients and amino acids your body needs:

- Add veggies, like shredded zucchini or finely chopped kale and fresh fruit to oats, and garnish generously with nuts and/or seeds.
- Layer cooked, chilled quinoa and hummus and scoop it up with raw veggies.
- Whip up energy balls made from nut butter or sunflower seed butter, mixed with rolled oats or toasted quinoa and dried fruit, rolled in chia seeds.
- Add black beans and cooked, chilled wild rice to garden salads.
- Toss buckwheat soba noodles with veggies, black eyed peas, and a sauce made from almond butter seasoned with ginger, garlic, and chili pepper.
- Garnish lentil and veggie soup with chopped walnuts or pecans.
- Whip chickpea flour into fruit and veggie smoothies along with sprouted pumpkin seeds.
- Drizzle oven roasted veggies with tahini or serve with pesto made from olive oil, herbs, and nuts.

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