

AMERICAN-GROWN PISTACHIOS ARE A COMPLETE PROTEIN

WHAT IS A COMPLETE PROTEIN?

The Food and Drug Administration defines a “complete” protein as a food that contains adequate amounts of all nine essential amino acids (the protein-building blocks our bodies don’t naturally produce and need from food).¹ The protein quality of pistachios was assessed for the first time at the University of Illinois, Urbana-Champaign. The study determined **roasted pistachios contain all of the 9 essential amino acids necessary for supporting growth and maintaining health for those 5 years and older**, therefore, they are a “Complete Protein.”

SOURCES OF COMPLETE PROTEIN



MEAT



EGGS



SEAFOOD



DAIRY



PISTACHIOS

WHY THIS IS A GAME CHANGER

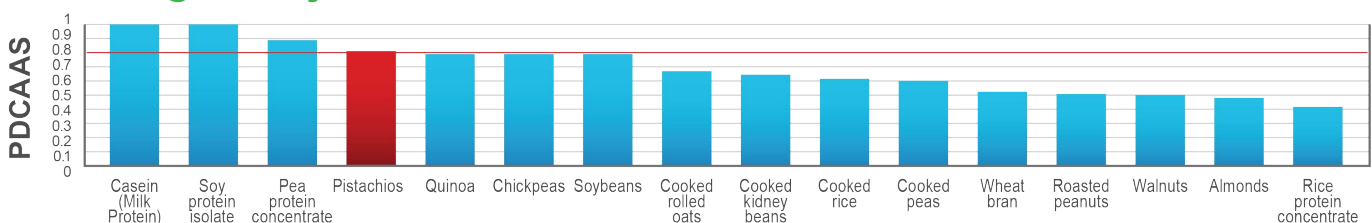
- Pistachios provide a convenient complete protein snack that’s portable and doesn’t require cooking.
- No need to combine two or more incomplete sources of protein. Now simply eat pistachios.
- Pistachios provide a meat alternative for vegans, vegetarians and those who want protein from plant based sources.



PISTACHIO NUTRITION FUELS ACTIVE LIFESTYLES

- **Complete protein** to help build and preserve muscles.
- Cholesterol-free, fiber, antioxidants, lutein, potassium, healthy fats and B-vitamins help the body refuel and recover before and after a workout.

Protein Digestibility-Corrected Amino Acid Score (PDCAAS)^{2,3}



The Protein Digestibility Corrected Amino Acid Score (PDCAAS) evaluates protein quality based on both amino acids (the building blocks of protein) and how well the body digests it. The higher the PDCAAS score the better the quality of protein. According to PDCAAS, pistachios provide adequate levels of all nine essential amino acids, at 81 percent of casein, which is used as a reference food.

¹ AmericanPistachios.org/FDA

² Bailey, H. M., & Stein, H. H. (2020). Raw and roasted pistachio nuts (*Pistacia vera* L) are “Good” sources of protein based on their digestible indispensable amino acid score (DIAAS) as determined in pigs. *Journal of the Science of Food and Agriculture*. <https://doi.org/10.1002/jsfa.10429>

³ Boye, Joyce & Wijesinha-Bettoni, Ramani & Burlingame, Barbara. (2012). Protein quality evaluation twenty years after the introduction of the protein digestibility corrected amino acid score method. *The British Journal of Nutrition*. 108. S183-S211. 10.1017/S0007114512002309.

