High versus Low Quality Protein

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Abstract: High Quality and Low Quality Protein Names Differ from Actual Nutritional Quality of Source

Popular American culture dictates that protein derived from animal sources is of a higher quality than the protein found in plant sources. Both animal-source protein and plant-source protein contain all essential amino acids, earning the name High Quality in scientific terms. Plant-derived protein has been given the misnomer “low-quality” because it was believed that it lacks in one or more of the essential amino acids. Through on-campus opinion polling, it is apparent that most flock toward “high-quality” proteins, which has nutritional drawbacks “low-quality” protein does not. Extensive study proves that “low-quality” protein found in plants can provides all essential amino acids, free of cholesterol and the increased chance of disease that meat brings. This study concludes that plant protein provides more long-term nutritional value than “high-quality”, meat-based proteins.

Introduction

This poster will present the distinction between “high-quality” and High Quality protein. High Quality will refer to protein that fosters good health, while “high-quality” refers to the media term applied to meat protein.

Protein is the most important nutrient for keeping the human body healthy. In modern American culture, the most commonly mentioned source of protein is meat. In accordance with the “Western” diet, daily meals are characterized by “high intake of red meat (and other) processed meat.” Serving size has swelled so exponentially since the 1970s that today’s typical steak is 16- 22 ounces, compared with the former norm of 8- 12 ounces (Sizer and Whitney 44). With increasing size, the amount of protein, viewed as an essential part of any diet, has grown accordingly. Depending on the type of protein, though, this increase may not contribute to health.

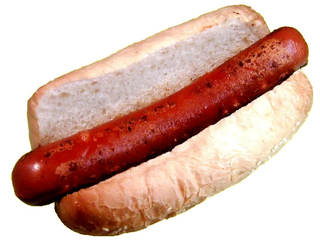
In American media, meat is called a “high-quality” food and has become both a traditional symbol of status and a mealtime staple of the healthy nuclear family. Even in scientific terms, meat can be construed (albeit by extension) to be of a High Quality because of its protein content, which includes a ratio of amino acids similar to human protein . Some accept the commercial presentation of two types of protein—”high-quality” from animals and “low-quality” from plants.

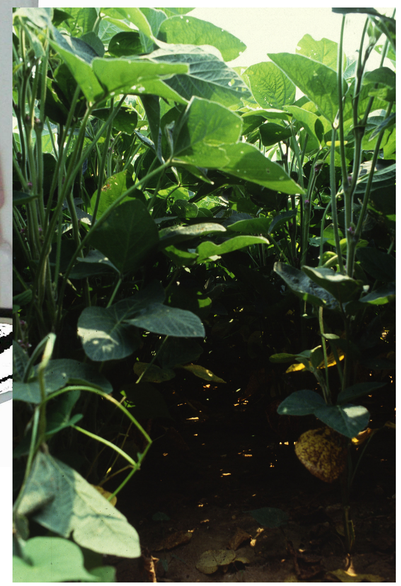
Method

I studied a plethora of peer-reviewed articles from scientific and medical journals to further my understanding of the two types of protein as discussed in The China Study[1] and in peer-reviewed and academic literature. The information was then viewed one next to the other to find links and possible discrepancies in the data before it was all combined into the final project.

Results

Until very recently, research data suggested that “low quality” protein was deficient or lacking in at least one essential amino acid. To get all eight essentials, it would require combining different plant-sourced foods with one another, which would make sticking to a strictly plant-based diet more complicated. A new study debunks this myth, finding that plant-based foods do indeed contain all eight essential amino acids, eliminating the need to form combination [2].





Results (CONT’D)

Many choose not to eat “low quality” protein under the false assumption that it does not contain all essential amino acids. All essential amino acids can be had from single plant sources, eliminating one fear connected with being a vegetarian. But meat-based foods are saddled with unwanted problems, like cholesterol and saturated fat. The difference between ”high-quality” and “low-quality” protein is that “low-quality” protein is far better for maintaining health in humans.

Common Food Sources of High Quality Protein

“low quality” Protein	“high quality” Protein
-Olives	-Steak (and other red meat)
-Beans (black, red, etc.)	-Chicken (and other white meat)
-Dark Green Leafy Vegetables	-Yogurt
	-Milk
-Soy	-Butter
-Nuts	-Whey

Results (CONT’D)

The key difference between ”high-quality” and “low-quality” protein is the relation of each to human health. The protein found in meat is known as “high-quality” only because it contains a ratio of eight essential amino acids similar to humans, and thus is easily and quickly sythesized by the body[3]. It leads to accelerated growth, which may be helpful when raising animals for slaughter, but is not beneficial in the human body. Young girls who eat a meat-heavy diet may reach puberty at a much earlier age than girls who eat primarily plant-based diets. Protein from plant sources promotes protein synthesis within the body at a slower rate[3].

Producing and consuming “high-quality” animal protein has other drawbacks[4]. In addition, foods from animal sources come with an unfortunate catch: they contain cholesterol, which has been found to be related to pancreatic cancer[5].

Animal protein in the diet does increase calcium absorption. When consuming a diet of soy protein versus meat protein, researchers found that intestinal calcium absorption declined acutely[6].

Conclusion

In advertising, the term “high-quality” does not relate to protein’s beneficial or detrimental contributions to health. All protein is of great importance because it contains the essential amino acids that we are unable to produce ourselves.

But “high-quality” does *not* mean it is better or healthier for human beings, Only for the meat industry.

References

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