

# The building blocks of life: Exploring the essential functions and benefits of protein.

Leif Nelson\*

Department of Food Technology, University of California, Berkeley, USA

## Abstract

**Protein is an essential nutrient that plays a vital role in our body. It is required for the growth and maintenance of tissues, muscles, and organs, and is also responsible for the production of enzymes, hormones, and other vital molecules in the body. In this blog post, we will explore the importance of protein, the different types of protein, and the sources of protein. Protein is an essential macronutrient that our body needs to function properly. It is made up of amino acids, which are the building blocks of protein. There are 20 different types of amino acids, and our body requires all of them to build and maintain tissues, muscles, and organs.**

**Keywords:** Protein, Hormones, Soybeans, Legumes.

## Introduction

Protein is required for a variety of functions in the body. It helps to repair damaged tissues, build new tissues, and maintain the health of our bones, skin, hair, and nails. It also helps to produce enzymes and hormones, which are essential for the regulation of various bodily processes. Additionally, protein is important for the immune system, as it helps to produce antibodies that fight against infections. There are two main types of protein: complete protein and incomplete protein. Complete protein is a type of protein that contains all of the essential amino acids that our body needs. There are 20 different types of amino acids, and our body needs all of them to build and maintain tissues, muscles, and organs [1,2].

However, our body cannot produce all of these amino acids on its own, which is why we need to get them from the food we eat. Complete protein is usually found in animal-based foods, such as meat, fish, eggs, and dairy products. These foods contain all of the essential amino acids in the right proportions that our body needs. For example, chicken breast is a great source of complete protein as it contains all of the essential amino acids in the right amounts. Some plant-based foods also contain complete protein, such as soybeans and quinoa. These foods are a great source of protein for vegetarians and vegans. It is important to consume enough complete protein in our diet as it plays a vital role in the growth and maintenance of tissues, muscles, and organs. Additionally, complete protein helps to produce enzymes and hormones, which are essential for the regulation of various bodily processes. Consuming enough complete protein can also help to boost our immune system and keep us healthy.

Incomplete proteins are usually found in plant-based foods, such as grains, legumes, and vegetables. However, by

combining two or more incomplete proteins, we can create a complete protein. For example, combining rice and beans provides all of the essential amino acids that our body needs. Protein is found in a wide variety of foods, both animal-based and plant-based. Here are some of the best sources of protein: Meat: Meat is one of the best sources of protein. Beef, pork, chicken, and turkey are all great sources of complete protein. Fish: Fish is another great source of protein. Salmon, tuna, and sardines are all high in protein and also contain omega-3 fatty acids, which are important for heart health [3].

Eggs: Eggs are a great source of complete protein. They are also rich in vitamins and minerals. Dairy: Dairy products, such as milk, cheese, and yogurt, are all great sources of complete protein. They are also rich in calcium, which is important for the health of our bones. Legumes: Legumes, such as lentils, chickpeas, and black beans, are great sources of incomplete protein. However, by combining them with grains, such as rice or bread, we can create a complete protein. Nuts and Seeds: Nuts and seeds, such as almonds, peanuts, and sunflower seeds, are good sources of protein. They are also rich in healthy fats and fiber. Vegetables: Although vegetables are not a great source of protein on their own, they can still contribute to our daily protein intake. Vegetables such as broccoli, spinach, and peas are good sources of protein [4,5].

## Conclusion

Protein is an essential nutrient that plays a vital role in our body. It is required for the growth and maintenance of tissues, muscles, and organs, and is also responsible for the production of enzymes, hormones, and other vital molecules in the body. There are two main types of protein: complete protein and incomplete protein. Complete protein contains all of the

---

\*Correspondence to: Leif Nelson, Department of Food Technology, University of California, Berkeley, USA, E-mail: leif.nelson@haas.berkeley.edu

Received: 25-Apr-2023, Manuscript No. AAFTP-23-94196; Editor assigned: 26-Apr-2023, PreQC No. AAFTP-23-94196 (PQ); Reviewed: 10-May-2023, QC No. AAFTP-23-94196; Revised: 14-May-2023, Manuscript No. AAFTP-23-94196 (R); Published: 21-May-2023, DOI:10.35841/2591-796X-7.3.179

---

essential amino acids that our body needs, while incomplete protein does not contain all of the essential amino acids. Protein can be found in a wide variety of foods.

## References

1. Moorthy D, Rowe L. Evaluation of global experiences in large-scale double-fortified salt programs. *J Nutr.* 2021;151(1):38S-46S.
2. Hamada JS. Large-scale high-performance liquid chromatography of enzymes for food applications. *J Chromatogr A.* 1997;760(1):81-7.
3. Reguera-Useros JI. Comments on food science and technology from a university department of microbiology. *Int Microbiol.* 2002;5(1):1-2.
4. Zibaei R, Hasanvand S, Hashami Z. Applications of emerging botanical hydrocolloids for edible films: A review. *Carbohydr Polym.* 2021;256:117554.
5. Stillings BR. Regulatory environment: Incentive or impediment to developments in food science and technology. *Crit Rev Food Sci Nutr.* 1994;34(2):223-7.