

## Very low protein diet — Good for health? <sup>[1]</sup>

Dear Alice,

What are the consequences to having a diet too low in protein?

— SMS

### Answer

Dear SMS,

Beans, seafood, poultry, meat, and eggs: these are just a few foods that provide dietary protein. Protein is a macromolecule made up of nitrogen and a varying number of amino acids that helps human bodies carry out a number of essential functions, including digestion, metabolic processes, nutrient absorption, and the concentration of blood glucose. Unless medically indicated, a low-protein pattern of eating may cause a number of health problems — such as malnourishment, stunted growth, and cardiovascular issues — and therefore isn't recommended.

Although some proteins occur naturally in the body, people require additional protein from foods they eat to function appropriately. When eating, protein from food sources are broken down into amino acids in your gastrointestinal (GI) tract. GI functioning relies on the energy, carbon, and nitrogen produced from this breakdown. The amino acids that aren't being utilized in the GI tract move through the body's portal vein and contribute to other key metabolic processes. It's good to know that dietary proteins are also used to breakdown other essential nutrients in the small intestine (such as vitamin A and iron), and in making sure those nutrients and other molecules are then absorbed in the bloodstream.

Given dietary proteins' role in many physiological processes, a low-protein pattern of eating may lead to a number of health problems. Since protein contributes to nutrient absorption, the body may not be receiving other necessary vitamins and minerals if the foods consumed are insufficient in protein. Without consuming protein-rich foods, other nutrients found in these foods, such as niacin, thiamin, riboflavin, B12, B6, iron, zinc, and calcium, among others may also be deficient (depending on what foods are missing from your pattern of eating). The effects of prolonged low-protein patterns of eating may eventually manifest into impaired immune function and irregularities in other bodily functions. For example, individuals with a protein-deficient

pattern of eating may become undernourished and physically weak. They're also at a higher risk of contracting an infectious disease, developing cardiovascular issues such as hypertension or heart failure, anemia, insomnia, stunted growth and impaired cognitive development in young people.

In the US, it's rare to find protein deficiencies among the general population and, oftentimes, people struggle more with excess of protein rather than deficiency. Although cutting down on protein is typically not recommended, health care providers may endorse a low-protein diet for people dealing with kidney or intestinal dysfunction in an effort to avoid putting strain on the kidneys and GI tract. Dietary protein can be obtained from animal *and* plant sources. Protein recommendations vary depending on lean body mass, though experts recommend eating 0.8 kilograms of protein for every 1 kilogram of body weight each day. Note that this is the recommended amount if minimally active. That being said, since amino acids help with muscle processes and act as fuel during intense aerobic exercise, consider increasing the amount of daily dietary protein when being physically active.

Proteins are an integral and necessary part of physiological functioning, so kudos to you for reflecting on its impacts on your health. If you have special dietary needs and any concerns regarding your dietary protein intake, consider speaking with a registered dietitian or health care provider.

Alice!

Category:

[Nutrition & Physical Activity](#) [2]

[Optimal Nutrition](#) [3]

[Nutrients](#) [4]

## Related questions

[Best protein toppings for my salad?](#) [5]

[Amino acid supplements](#) [6]

[Pros and cons of vegetarianism](#) [7]

[Recommended dietary allowances \(RDAs\) of nutrients?](#) [8]

## Resources

[Columbia Health Nutrition Services \(Morningside\)](#) [9]

[Medical Services \(Morningside\)](#) [10]

[Student Health Service Nutrition Services \(CUIMC\)](#) [11]

[Medical Services \(CUIMC\)](#) [12]

Published date:

Oct 11, 1996

Last reviewed on:

Dec 20, 2019

## Footer menu

- ▼ Contact Alice!
  - Content Use
  - Media Inquiries
  - Comments & Corrections
- ▼ Syndication & Licensing
  - Licensing Q&As
  - Get Alice! on Your Website
  - Full Site Syndication
  - Link to Go Ask Alice!

**Go Ask Alice! is not an emergency or instant response service.**

If you are in an urgent situation, please visit our Emergency page to view a list of 24 hour support services and hotlines.

---

**Source URL:** <https://goaskalice.columbia.edu/answered-questions/very-low-protein-diet-%E2%80%94-good-health-0>

### Links

- [1] <https://goaskalice.columbia.edu/answered-questions/very-low-protein-diet-%E2%80%94-good-health-0>
- [2] <https://goaskalice.columbia.edu/category/nutrition-physical-activity>
- [3] <https://goaskalice.columbia.edu/category/optimal-nutrition>
- [4] <https://goaskalice.columbia.edu/category/nutrients>
- [5] <https://goaskalice.columbia.edu/answered-questions/best-protein-toppings-my-salad-0>
- [6] <https://goaskalice.columbia.edu/answered-questions/amino-acid-supplements-0>
- [7] <https://goaskalice.columbia.edu/answered-questions/pros-and-cons-vegetarianism-0>
- [8] <https://goaskalice.columbia.edu/answered-questions/recommended-dietary-allowances-rdas-nutrients-0>
- [9] <https://goaskalice.columbia.edu/resource/columbia-health-nutrition-services-morningside>
- [10] <https://goaskalice.columbia.edu/resource/medical-services-morningside>
- [11] <https://goaskalice.columbia.edu/resource/student-health-service-nutrition-services-cuimc>
- [12] <https://goaskalice.columbia.edu/resource/medical-services-cuimc>