

IMPORTANCE OF PROTEIN FOR HUMAN BODY

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Annatation: *Every cell in the human body contains protein. The basic structure of protein is a chain of amino acids. You need protein in your diet to help your body repair cells and make new ones. Protein is also important for growth and development in children, teens, and pregnant women.*

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Protein in diet

Proteins are the building blocks of life. Every cell in the human body contains protein. The basic structure of protein is a chain of amino acids.

You need protein in your diet to help your body repair cells and make new ones. Protein is also important for growth and development in children, teens, and pregnant women.

Food Sources

The protein in food is broken down into parts called amino acids during digestion. The human body needs a number of amino acids in large enough amounts to maintain good health.

Amino acids are found in animal sources such as meats, milk, fish, and eggs. They are also found in plant sources such as soy, beans, legumes, nut butters, and some grains (such as wheat germ and quinoa). You do not need to eat animal products to get all the protein you need in your diet.

Amino acids are classified into three groups:

- Essential
- Nonessential
- Conditional

Essential amino acids cannot be made by the body, and must be supplied by food. They do not need to be eaten at every meal. The balance over the whole day is more important.

Nonessential amino acids are made by the body from essential amino acids or in the normal breakdown of proteins.

Conditional amino acids are needed in times of illness and stress.

Recommendations

Protein is an important nutrient for everyone, not just athletes and body builders. That doesn't mean you need to start drinking protein shakes every day. Most people can get the protein that they need from a healthy and balanced diet. Here's why protein is important, how much protein you need each day, and some great protein-rich foods.

The amount of protein you need in your diet will depend on your overall calorie needs. The daily recommended intake of protein for healthy adults is 10% to 35% of your total calorie needs. One gram of protein supplies 4 calories. Therefore, a person on a 2000 calorie diet could eat 100 grams of protein, or 400 calories from protein, which would supply 20% of their total daily calories.

One ounce (30 grams) of most protein-rich foods contains 7 grams of protein. An ounce (30 grams) equals:

- 1 oz (30 g) of meat fish or poultry
- 1 large egg
- ¼ cup (60 milliliters) tofu
- ½ cup (65 grams) cooked beans or lentils

Low fat dairy is also a good source of protein.

Whole grains contain more protein than refined or "white" products.

Children and teens may need different amounts, depending on their age. Some healthy sources of animal protein include:

- Turkey or chicken with the skin removed, or bison (also called buffalo meat)
- Lean cuts of beef or pork, such as round, top sirloin, or tenderloin (trim away any visible fat)

- Fish or shellfish

Other good sources of protein include:

- Pinto beans, black beans, kidney beans, lentils, split peas, or garbanzo beans
- Nuts and seeds, including almonds, hazelnuts, mixed nuts, peanuts, peanut butter, sunflower seeds, or walnuts (Nuts are high in fat so be mindful of portion sizes. Eating calories in excess of your needs may lead to weight gain.)

- Tofu, tempeh, and other soy protein products

- Low-fat dairy products

What is protein?

Protein is one of three primary macronutrients (the others being carbohydrate and fat). Macronutrients are the chemical compounds that humans ingest the most of, and which provide us with most of our energy. Proteins consist of amino acids, and are the most commonly found molecules in cells.

Our bodies can produce most of the amino acids we need to stay healthy, but there are nine amino acids that we cannot produce, and must consume through diet. The nine amino acids that our body cannot produce are called essential amino acids.

Why is protein important?

Humans can't survive without all nine essential amino acids. Protein is essential to building bones, and body tissues, such as muscles, but protein does much more than that. Protein participates in practically every process of a cell. It plays a part in metabolic reactions, immune response, protein provides a source of energy, assists in cellular repair, form blood cells, and more.

How much protein do you need?

Protein provides the same energy density as carbohydrates. However, the body does not store proteins in the same way it stores carbohydrates and fats. This means that you need to consume protein everyday. There are differing opinions about just how much protein you need each day, however. This is due in part to the number of things that affect how much protein your body needs.

REFERENCES:

1. Ubaidullaev M.M.U., Askarov Kh.Kh., Mirzaikromov M.A.U. EFFECTIVENESS OF NEW DEFOLIANTS. Theoretical & Applied Science. 2021. No. 12 (104). S. 789-792. https://www.elibrary.ru/keyword_items.asp?id=21526423
2. Nazirova Rakhnamokhan Mukhtarovna, Mirzaikromov Mirzababur Alisher Ugli, Usmanov Nodirjon Botiraliyevich Vliyanie processa okhlajdeniya zerna kukuruzy na ego sokhranyaemost, kolichestvo poter i na zarajyonnost nasekomymi-vreditelyami // Problemy Nauki. 2020. No. 6-2 (151). URL: <https://cyberleninka.ru/article/n/vliyanie-protseesa-ohlazhdeniya-zernakukuruzy-na-ego-sohranyaemost-kolichestvo-poter-i-na-zarazhyonnostnasekomymi-vreditelyami>
3. Mirzayeva, M. A., Mullajonova, S. S., & Mirzaikromov, M. A. (2022). THE GRAPE PROCESSING TECHNOLOGY FOR WINE PRODUCTION. International Journal of Advance Scientific Research, 2(04), 7-10. <https://sciencebring.com/index.php/ijasr/article/view/43/33>
4. Mirzaikromov M.A. VLIYANIE ORGANICHESKIX I MINERALNYX UDOBRENIY NA UROJAYNOST HLOPKA // Universum: tekhnicheskie nauki: elektron. nauchn. journal. 2022. 5(98). URL: <https://7universum.com/ru/tech/archive/item/13724>
5. Mirzaikromov, M. A. (2023). EFFECT OF DETONATION SOIL SOFTENING ON CARBONATE AND SULFATE SALTS. Open Access Repository, 4(04), 41-52.