

# Synbiotics - description, benefits, effect on the body and the best sources

*Tkacheva Natalya*, herbalist, nutritionist

*Eliseeva Tatyana*, editor-in-chief of the EdaPlus.info project

*E-mail:* tkacheva.n@edaplus.info, eliseeva.t@edaplus.info

**Abstract.** When events occur in our lives that require the immediate intervention of microbiological medicine, it is worth talking about the use of synbiotics.

Let's figure out what it is.

So, according to the postulates of microbiological medicine, all drugs that affect the intestinal microflora (beneficial) are divided into three types.

Prebiotics help the microorganisms that already live in our intestines grow. This is accomplished due to the presence of substances that stimulate the growth and development of bifidobacteria and lactobacilli.

If the number of beneficial bacteria is small, and the presence of nutrients is in excess (for example, after a course of antibiotics), we should talk about probiotics, which are a conglomerate of lacto- and bifidobacteria. After their introduction, they immediately occupy free spaces and improve the general condition of the body.

If there is a general deficiency in microorganisms and nutrition for them, synbiotics should be used.

*Keywords:* synbiotics, general characteristics, daily requirement, digestibility, beneficial properties, signs of deficiency, signs of excess

## **Foods rich in synbiotics:**

- Pickled vegetables (cucumbers, tomatoes, watermelons)
- Sauerkraut [1]
- Dairy products
- Soy milk [2]
- Soft types of cheeses (Camembert, etc.)
- Artichoke
- Corn [3]
- Chicory
- Onions [4]
- Flax seeds
- Dandelion [5]
- Sourdough bread
- Jerusalem artichoke
- Figs
- Grapes [6]

## **General characteristics of synbiotics**

Synbiotics are a complex formation that includes carbohydrates [7] (poly- and oligosaccharides), as well as several types of beneficial microorganisms (bifidobacteria and lactobacilli).

It should be noted that, contrary to the opinion of ordinary people, synbiotics can be not only of artificial origin, but also of natural origin. Above we have indicated a list of products in which this complex is present in full.

### **Daily requirement for synbiotics**

As for the body's daily need for synbiotics, it varies depending on the type of synbiotic, as well as its origin. For example, if you take synbiotics such as "Bifilar", "Normoflorin", "Bifidum-multi", or "Normospectrum", then the recommended dosage for them is as follows: for children - 1 tbsp. 1. 3 times a day. For adults, the amount of synbiotic consumed is 2 tbsp. 1. 3 times a day.

As for food products, the norm for them is calculated individually, depending on the concentration of microorganisms and the availability of a nutrient medium for their vital activity.

### **The need for synbiotics increases with:**

- acute intestinal infections of various etiologies (shigellosis, salmonellosis, staphylococcal enterocolitis, etc.);
- acute and chronic diseases of the gastrointestinal tract (gastritis [8], pancreatitis [9], cholecystitis [10], constipation [11], ulcerative colitis [12], Crohn's disease, etc.);
- chronic diseases of the liver and biliary tract;
- tuberculosis [1 3];
- hepatitis [1 4];
- liver cirrhosis [1 5];
- oncological diseases;
- in case of disturbance of the microflora of the gastrointestinal tract;
- decreased immunity;
- in the case of food allergies [16] and atopic dermatitis;
- vitamin deficiency [17];
- chronic fatigue syndrome;
- during preparation for surgery;
- in the postoperative period;
- respiratory infections and as a prophylactic agent;
- high mental and physical stress [18,19];
- while playing sports;
- as a general tonic.

### **The need for synbiotics is reduced:**

- in case of normal functioning of the gastrointestinal tract;
- in case of individual intolerance or allergic reactions to certain nutritional components (medicines);
- if there are contraindications.

### **Absorption of synbiotics**

Due to the fact that synbiotics are complex compounds that include pre- and probiotics, their absorption directly depends on the ability to assimilate each component separately.

### **Beneficial properties of synbiotics, their effect on the body:**

Due to the fact that synbiotics are a set consisting of beneficial microorganisms and substances that ensure their vital functions, the following can be indicated as the beneficial properties they have on the body. When synbiotics are consumed in sufficient quantities, an increase in immunity is observed, a decrease in the amount of pathogenic microflora, and the synthesis of lactic, acetic, butyric and propionic acid occurs. As a result of this, accelerated regeneration of the mucous membrane of the large and small intestines, as well as the duodenum, is noted.

Academician Bolotov gives interesting recommendations regarding the use of synbiotics (fermented vegetables, herbal kvass with milk sourdough, etc.) in his numerous books. The scientist conducted experiments, as a result of which it turns out that by populating the body with beneficial bacteria, you can get rid of many diseases and increase your life expectancy. There is a version that synbiotics can prevent cancer [20] and be successfully used in the complex treatment of serious diseases.

### **Interaction with other elements:**

The use of synbiotics accelerates all metabolic processes occurring in the body. At the same time, bone strength increases [21] (due to the absorption of calcium). The absorption of elements such as iron [22], magnesium [23] and zinc [24] improves. In addition, blood cholesterol levels are normalized [25].

### **Signs of a lack of synbiotics in the body:**

- frequent problems with the gastrointestinal tract (constipation [26], diarrhea);
- flatulence [27];
- skin rashes;
- inflammatory changes in joints;
- colitis and enterocolitis;
- nutritional starvation associated with impaired absorption of food;
- problems with the skin (acne, increased sebum secretion, etc.).

### **Signs of excess synbiotics in the body:**

- increased feeling of hunger;
- slight increase in temperature;
- tendency to frequently eat meat;

No other signs of excess synbiotics have been identified at this time.

### **Factors influencing the content of synbiotics in the body:**

The presence of synbiotics in our body is significantly influenced by the general state of health, the health of the gastrointestinal tract, and the presence of the enzyme betaglycosidase. In addition, in

order for a sufficient amount of synbiotics to be present in our body, it is necessary to establish a nutritious diet that includes a full range of foods rich in synbiotic components.

### Synbiotics for beauty and health

In order to have clear skin [28], a healthy complexion, absence of dandruff, and other indicators of health, it is necessary to have a healthy gastrointestinal tract. Otherwise, the products will not be able to completely undergo transformations, the body will not receive enough of the food it requires, and organs and systems will not be able to fulfill the duties assigned to them, due to general starvation of the cells. Therefore, if you are not satisfied with such a future, you should definitely think about using synbiotics, thanks to which our body can function at its best.

### Literature

1. Shelestun, A., & Eliseeva, T. (2021). Sauerkraut: 8 proven beneficial properties, contraindications and how to prepare. *Journal of Healthy Eating and Dietetics*, 4 (18), 25- DOI: 29.10.59316/.vi18.138
2. Shelestun, A., & Eliseeva, T. (2022). Soy milk: who can and should drink a lactose-free drink. *Journal of Healthy Eating and Dietetics*, 2 (20), 68-72. DOI: 10.59316/.vi20.180
3. Eliseeva, T., & Yampolsky, A. (2019). Corn (lat. Zéa máys). *Journal of Healthy Eating and Dietetics*, 3 (9), 2-13. DOI: 10.59316/.vi9.46
4. Tarantul, A., & Eliseeva, T. (2020). Onion (lat. Állium cépa). *Journal of Healthy Eating and Dietetics*, (11), 25-36. DOI: 10.59316/.vi11.63
5. Eliseeva, T., & Tkacheva, N. (2017). Dandelion (lat. Taraxacum). *Journal of Healthy Eating and Dietetics*, 1 (1), 12-22. DOI: 10.59316/.vi1.2
6. Tarantul, A., & Eliseeva, T. (2019). Grapes (lat. Vítis). *Journal of Healthy Eating and Dietetics*, (10), 14-25. DOI: 10.59316/.vi10.54
7. Eliseeva, T., & Shelestun, A. (2018). Carbohydrates - description, benefits, effect on the body and the best sources. *Journal of Healthy Eating and Dietetics*, 1(7). DOI: 10.59316/j.edpl.2018.7.8
8. Lazareva, V., & Eliseeva, T. (2021). Gastritis - signs and symptoms, useful and dangerous foods, folk remedies. *Journal of Healthy Eating and Dietetics*, (15). DOI: 10.59316/j.edpl.2021.15.64
9. Lazareva, V., & Eliseeva, T. (2021). Pancreatitis - signs and symptoms, useful and dangerous foods, folk remedies. *Journal of Healthy Eating and Dietetics*, (18). DOI: 10.59316/j.edpl.2021.18.33
10. Lazareva, V., & Eliseeva, T. (2022). Cholecystitis - signs and symptoms, useful and dangerous products, folk remedies. *Journal of Healthy Eating and Dietetics*, (20). DOI: 10.59316/j.edpl.2022.20.16
11. Lazareva, V., & Eliseeva, T. (2021). Nutrition for constipation. *Journal of Healthy Eating and Dietetics*, (16). DOI: 10.59316/j.edpl.2021.16.16
12. Lazareva, V., & Eliseeva, T. (2022). Colitis - signs and symptoms, useful and dangerous foods, folk remedies. *Journal of Healthy Eating and Dietetics*, (20). DOI: 10.59316/j.edpl.2022.20.32

13. Lazareva, V., & Eliseeva, T. (2022). Tuberculosis - signs and symptoms, useful and dangerous products, folk remedies. *Journal of Healthy Eating and Dietetics*, (19). DOI: 10.59316/j.edpl.2022.19.51
14. Lazareva, V., & Eliseeva, T. (2021). Hepatitis - signs and symptoms, useful and dangerous products, folk remedies. *Journal of Healthy Eating and Dietetics*, (15). DOI: 10.59316/j.edpl.2021.15.67
15. Lazareva, V., & Eliseeva, T. (2022). Cirrhosis - signs and symptoms, useful and dangerous foods, folk remedies. *Journal of Healthy Eating and Dietetics*, (20). DOI: 10.59316/j.edpl.2022.20.17
16. Lazareva, V., & Eliseeva, T. (2021). Nutrition for allergies. *Journal of Healthy Eating and Dietetics*, (16). DOI: 10.59316/j.edpl.2021.16.11
17. Lazareva, V., & Eliseeva, T. (2021). Vitamin deficiency - signs and symptoms, useful and dangerous foods, folk remedies. *Journal of Healthy Eating and Dietetics*, (16). DOI: 10.59316/j.edpl.2021.16.41
18. Tkacheva, N., & Eliseeva, T. (2020). Eating under great mental stress. *Journal of Healthy Eating and Dietetics*, (11). DOI: 10.59316/j.edpl.2020.11.31
19. Tkacheva, N., & Eliseeva, T. (2020). Eating during heavy physical activity. *Journal of Healthy Eating and Dietetics*, (11). DOI: 10.59316/j.edpl.2020.11.32
20. Eliseeva, T., & Shelestun, A. (2021). Food to protect against cancer and fight cancer. *Journal of Healthy Eating and Dietetics*, 2 (16), 49-54. DOI: 10.59316/.vi16.107
21. Eliseeva, T., & Tkacheva, N. (2020). Nutrition for bone health - healthy and dangerous foods, recommendations. *Journal of Healthy Eating and Dietetics*, (12). DOI: 10.59316/j.edpl.2020.12.20
22. Eliseeva, T. (2021). Iron (Fe) for the body – 30 best sources and importance for health. *Journal of Healthy Eating and Dietetics*, 4 (18), 66-75. DOI: 10.59316/.vi18.148
23. Mironenko, A., & Eliseeva, T. (2020). Magnesium (Mg, Magnesium) - description, effect on the body, best sources. *Journal of Healthy Eating and Dietetics*, (14), 60-71. DOI: 10.59316/.vi14.91
24. Tkacheva, N., & Eliseeva, T. (2022). Zinc (Zn) – value for the body and health + 30 best sources. *Journal of Healthy Eating and Dietetics*, 1 (19), 5-15. DOI: 10.59316/.vi19.152
25. Tkacheva, N., & Eliseeva, T. (2020). Foods to lower cholesterol. *Journal of Healthy Eating and Dietetics*, (11). DOI: 10.59316/j.edpl.2020.11.15
26. Lazareva, V., & Eliseeva, T. (2021). Nutrition for constipation. *Journal of Healthy Eating and Dietetics*, (16). DOI: 10.59316/j.edpl.2021.16.16
27. Lazareva, V., & Eliseeva, T. (2021). Flatulence - signs and symptoms, useful and dangerous products, folk remedies. *Journal of Healthy Eating and Dietetics*, (17). DOI: 10.59316/j.edpl.2021.17.45
28. Tkacheva, N., & Eliseeva, T. (2021). Food for the skin - 12 products for its beauty and health. *Journal of Healthy Eating and Dietetics*, 3 (17), 44-48. DOI: 10.59316/.vi17.121

[HTML version articles](#)

Received 08.03.2019

### **Synbiotics - description, benefits, effects on the body and best sources**

*Tkacheva Natalia*, phytotherapist, nutritionist

*Eliseeva Tatyana*, editor-in-chief of the EdaPlus.info project

*E-mail:* tkacheva.n@edaplust.info, eliseeva.t@edaplust.info

**Abstract.** When events occur in our lives that require immediate intervention of microbiological medicine, it is worth talking about the use of synbiotics. Let's understand what they are. So, according to the postulates of microbiological medicine, all drugs that affect the intestinal microflora (beneficial) are divided into three types. Prebiotics help the growth of those microorganisms that already live in our intestines. If the number of beneficial bacteria is low and the availability of nutrients is excessive (for example, after a course of antibiotics), we should talk about probiotics, which are a conglomerate of lacto- and bifidobacteria. After their introduction, they immediately occupy the free spaces and improve the general condition of the body. In case there is a general lack of microorganisms and nutrition for them, synbiotics should be used.