

Chlorophyll - description, benefits, effects on the body and the best sources

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Abstract. This is the basis of the entire plant world. It is called a solar energy product that helps rejuvenate and supply oxygen to our body.

Research has established a fact: the molecular composition of hemoglobin and chlorophyll differs in only one atom (instead of iron, chlorophyll contains magnesium), therefore this substance is considered a vital element for the normal functioning of the human body.

Key words: Chlorophyll, general characteristics, daily requirement, digestibility, beneficial properties, signs of deficiency, signs of excess

Products with maximum chlorophyll content:

- Parsley [1]
- Broccoli [2-3]
- Brussels sprouts
- Chard
- Cilantro [4]
- Celery
- Mint leaves [5]
- Cheremsha
- Spinach [6]
- Sorrel [7]
- Black currant leaves [8]
- Alfalfa
- wheat sprouts
- Barley sprouts
- Green smoothies

General characteristics of chlorophyll

In 1915, Dr. Richard Willstatter discovered the chemical compound chlorophyll. It turned out that the substance contains elements such as nitrogen, oxygen, magnesium, carbon and hydrogen. In 1930, Dr. Hans Fischer, who studied the structure of red blood cells, was surprised to discover that it was very similar to the formula of chlorophyll.

Today, chlorophyll is used in many wellness programs as green smoothies and juices. “Liquid chlorophyll” is used in sports nutrition.

In the European Register, chlorophyll is listed as food additive No. 140. Today, chlorophyll is successfully used as a natural substitute for dyes in the production of confectionery products.

Daily requirement for chlorophyll

Today, chlorophyll is often consumed in the form of green smoothies. It is recommended to prepare green smoothies 3-4 times a day, approximately 150 - 200 ml. They can be drunk before meals or even as a meal replacement.

Green smoothies are easy to prepare at home using a blender. A small investment of time and money ensures rejuvenation and normalization of all body processes.

The need for chlorophyll increases:

- in the absence of vital energy;
- with anemia;
- dysbacteriosis;
- with low immunity;
- in case of intoxication of the body;
- if the acid-base balance in the body is disturbed;
- with unpleasant body odor;
- for violations of the liver, lungs, kidneys;
- with asthma;
- with pancreatitis;
- wounds and cuts;
- for sore throat, pharyngitis, sinusitis;
- to maintain normal blood circulation;
- for stomach and duodenal ulcers;
- for the prevention of cancer;
- with hepatitis;
- with poor condition of teeth and gums;
- when vision deteriorates;
- for varicose veins;
- in the absence of milk during breastfeeding;
- after using antibiotics;
- to improve the functioning of the endocrine glands.

The need for chlorophyll decreases:

It has practically no contraindications.

Chlorophyll digestibility

Chlorophyll is perfectly absorbed. Researcher Often Kranz confirms in his research that chlorophyll is a natural antibiotic [9], which is easily and quickly absorbed by the body of adults and children.

Beneficial properties of chlorophyll and its effect on the body

The influence of chlorophyll on the human body is enormous. Eating foods containing chlorophyll is important for everyone. But this is especially necessary for residents of cities and megalopolises. After all, city dwellers usually receive a small amount of solar energy.

Chlorophyll prevents the development of cancer [10]. It perfectly cleanses the body, ridding it of harmful substances and heavy metal residues. Promotes the colonization of intestinal microflora with beneficial aerobic bacteria.

The substance improves digestion. Chlorophyll has been proven to reduce the symptoms and effects of pancreatitis. In addition, chlorophyll serves as a deodorizer, which completely eliminates unpleasant body odors.

Consumption of foods and drinks rich in chlorophyll increases hemoglobin levels in the blood [11]. Thus, the substance provides the body with a large amount of oxygen and energy.

Chlorophyll is simply necessary for cardiovascular diseases. It reduces high blood pressure [12]. Used by the body to improve the functional state of the heart. Necessary for normal intestinal function. It has a mild diuretic effect [13].

Chlorophyll in products is very useful for children. For children, chlorophyll is used starting from 6 months. Chlorophyll also has a beneficial effect during pregnancy [14]. It is recommended for mandatory use by older people.

Interaction with Essential Elements

This substance interacts well with chlorine [15] and sodium [16]. In addition, it normalizes metabolism, promoting the absorption of substances in the body.

Signs of a lack of chlorophyll in the body:

- lack of energy;
- frequent infectious and colds;
- dull complexion, age spots;
- low hemoglobin level;
- violation of acid-base balance.

Signs of excess chlorophyll in the body:

Not found.

Factors influencing chlorophyll content in the body

A nutritious diet that includes foods containing chlorophyll is a major factor. Also, the area in which a person lives indirectly affects the concentration of chlorophyll in the body. So a person living in a city has a greater need for chlorophyll than a person living in a rural area.

Chlorophyll for beauty and health

All the facts indicate the benefits and importance of using chlorophyll. In everyday life, this substance is used as part of green smoothies. The advantage of such drinks: satiety without a feeling of heaviness and discomfort in the stomach.

Products with chlorophyll contain many antioxidants [17], which protect the body from harmful environmental influences. Green smoothies help in the fight against excess weight and help eliminate toxins. Taking chlorophyll daily is an easy way to boost your energy and vitality throughout the day.

Literature

1. Yampolsky, A., & Eliseeva, T. (2020). Parsley (lat. *Petroselinum crispum*). *Journal of Healthy Eating and Dietetics*, (12), 2-12. DOI: 10.59316/.vi12.70
2. Eliseeva, T., & Yampolsky, A. (2020). Broccoli (Brassica oleracea Broccoli Group). *Journal of Healthy Eating and Dietetics*, 1 (11), 12-25. DOI: 10.59316/.vi11.62
3. Eliseeva, T. (2022). Benefits of broccoli: Top 10 proven beneficial properties. *Journal of Healthy Eating and Dietetics*, 2 (20), 24-28. DOI: 10.59316/.vi20.172
4. Eliseeva, T. (2021). Cilantro has proven benefits for the body and is the recommended intake. *Journal of Healthy Eating and Dietetics*, 3 (17), 53-58. DOI: 10.59316/.vi17.123
5. Eliseeva, T., & Tkacheva, N. (2017). Mint (lat. *Mentha*). *Journal of Healthy Eating and Dietetics*, 1 (1), 22-32. DOI: 10.59316/.vi1.3
6. Tarantul, A., & Eliseeva, T. (2020). Spinach (lat. *Spinacia oleracea*). *Journal of Healthy Eating and Dietetics*, (12), 48-59. DOI: 10.59316/.vi12.74
7. Yampolsky, A., & Eliseeva, T. (2020). Sorrel (lat. *Rúmex*). *Journal of Healthy Eating and Dietetics*, (12), 37-47. DOI: 10.59316/.vi12.73
8. Yampolsky, A., & Eliseeva, T. (2020). Black currant (lat. *Ríbes nígrum*). *Journal of Healthy Eating and Dietetics*, (12), 71-82. DOI: 10.59316/.vi12.76
9. Tkacheva, N., & Eliseeva, T. (2020). Antibiotic food. *Journal of Healthy Eating and Dietetics*, (eleven). DOI: 10.59316/j.edpl.2020.11.16
10. 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
11. Eliseeva, T. (2021). Food to increase hemoglobin. *Journal of Healthy Eating and Dietetics*, 2 (16), 54-59. DOI: 10.59316/.vi16.108
12. Tkacheva, N., & Eliseeva, T. (2020). Foods that lower blood pressure. *Journal of Healthy Eating and Dietetics*, (11). DOI: 10.59316/j.edpl.2020.11.39
13. Tkacheva, N., & Eliseeva, T. (2020). Diuretic products (diuretics). *Journal of Healthy Eating and Dietetics*, (11). DOI: 10.59316/j.edpl.2020.11.29
14. Eliseeva, T., & Tkacheva, N. (2020). Food during pregnancy. *Journal of Healthy Eating and Dietetics*, (11). DOI: 10.59316/j.edpl.2020.11.24
15. Tkacheva, Natalia, and Tatyana Eliseeva. "Chlorine (Cl) – value for the body and health where it is contained." *Journal of Healthy Eating and Dietetics* 2.20 (2022): 28-34. DOI: 10.59316/.vi20.173
16. Tkacheva, N., & Eliseeva, T. (2022). Sodium (Na) – importance for the body and health + 30 best sources. *Journal of Healthy Eating and Dietetics*, 1 (19), 43-52. DOI: 10.59316/.vi19.158
17. Eliseeva, T., & Tkacheva, N. (2019). Antioxidants - description, benefits, effects on the body and the best sources. *Journal of Healthy Eating and Dietetics*, (7), DOI: 10.59316/j.edpl.2018.7.12

[HTML version of the article](#)

Received 10.07.2019

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