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SCIENCE, TRENDS AND PERSPECTIVES

# **SCIENCE, TRENDS AND PERSPECTIVES**

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## SCIENCE, TRENDS AND PERSPECTIVES

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## FEATURES NUTRITION OF THE ELDERLY IN TERMS OF GERONTOLOGY

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Aging is a complex of changes in the body as a result of the action of time factors. A study of these aging processes makes it possible to understand how these processes can be affected. Today, there are many physiologically active substances, the consumption of which helps to increase life expectancy and improve its quality. A properly organized life and diet with geroprotectors can have a significant impact on the aging processes of the human body.

Analysis of the nutrition of long-livers revealed a number of common features, namely:

- the consumption of food products characteristic of the living area, which contributes to the maximum adaptation of the human body to the place of residence. As a result of this, the energy that would be spent on adjusting to changes in nutrition goes to strengthening the body;

- a decrease in the total amount of food consumed and its calorie content - cessation of food intake when the body is saturated only by 70-80%;

- the exception of the storage of cooked food - all dishes are consumed immediately after cooking, which eliminates excessive loss of vitamins and the beginning of the rotting process;

- exclusion from the diet of meat broths and yeast wheat bread aggressive for the elderly, which is replaced by oat, corn and millet cakes;

- enrichment of the diet with raw vegetables in the form of salads and fresh herbs and wild plants with high enzymatic activity, a rich mineral composition and dietary fiber, which affects the preservation of the functional capabilities of the digestive system;

- replacement of industrial sugar with natural sweeteners, for example, honey and grapes;

- reduction in the diet of fats and salts, which accelerate the aging process;

- replacement of tea and coffee with fruit and leaf infusions;

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It is known that one of the main signs of aging is a decrease in the activity of cell renewal, weakening of the processes of assimilation and the predominance of dissimilation processes. With age, the biosynthesis and activity of digestive enzymes decreases, the absorption of substances slows down, which leads to a violation of the process of supplying body tissues with nutrients. When preparing diets for the elderly, it is necessary to take into account all these disorders by including easily digestible products, stimulants of the gastrointestinal tract motor activity and components that prevent the accumulation of toxins and cholesterol.

In addition, with age, there is a decrease in energy consumption, which leads to the need to reduce the calorie content of the daily diet. So, if the caloric content of the daily diet of a 20–23 year old person is taken as 100%, then by 30–40 years old it should be 97%, by 40–55 years old, 94%, by 55–60 years old, 80%, by 60–70 years old 70 %. After 70 years, the calorie content of the daily diet should be 1900 - 2300 kcal, while taking into account climatic, living conditions and gender.

In old age, a diet is important, the observance of which contributes to the prevention of disorders of the enzymatic and secretory activity of the digestive system. Meal is recommended in small portions 4-6 times a day, stopping food intake 2 hours before bedtime and avoiding meals and long-term digestion products. Cooking is important - it is advisable to avoid frying, preferring stewing, baking and boiling. The daily set of products for the elderly recommended by the MLO are presented in table 1.

Table 1.  
An average daily set of products for the elderly

Product, name	Mass, g
Low-fat meat	170
Fish	35
Sour-milk and dairy products	400
Low-fat cottage cheese	70
Hard or brine cheese	10
Eggs	1\ 2 pieces
Butter \ sour cream 10% fat	10\ 100
Vegetable oil	20
Sugar	35
Rye, rye-wheat bread	300
Wheat flour	60
Groats (buckwheat, oat, semolina)	70
Potatoes	200
Vegetables	650

The study of the characteristics of the human antioxidant system and the identification of the properties of its components led to an active search for factors with similar properties in food products and the synthesis of artificial analogues. It

has been found that bioflavonoids inhibit aging best. It is for this reason that the most useful products are those that have the darkest color (blueberries, dark grapes, beets, tomatoes, purple cabbage and eggplant, etc.). For example, blueberries help increase the amount of neurohormones in the brain, blueberry flavonoids can raise the level of glutathione - the most important antioxidant produced by the body itself. Glutathione is a powerful protector of nerve tissue.

Apples contain one of the most powerful antioxidants, quercetin and phenolic acids, which improve the state of the cardiovascular system and prevent the formation of blood clots.

Tomatoes contain one of the most powerful natural antioxidants, lycopene, which also regulates gene functions, affects the immune system and accelerates tissue renewal. Tomato products also serve as a source of lycopene: sauces, pastas, tomato soup, canned, salted tomatoes, etc. The daily norm is contained in 200-500 g of tomatoes, in 500 g of tomato juice or 200 g of tomato paste.

Numerous studies have established that powerful gerontoprotectors are dark grape varieties containing the resveratrol antioxidant, as well as well-known beets, blackcurrant, chokeberry (chokeberry), cabbage, especially red and purple, dark eggplant, dark cherries and cherries, spinach, artichokes, raspberries, pomegranates, grapefruit, strawberries, cranberries, garlic, onions, tea, cocoa and low-calorie products from it, nuts and most types of greens.

Based on the foregoing, we conducted a series of experiments on the development of jelly and whipped desserts from fruit and vegetable compositions of the geroprotective direction. The fruit and vegetable composition in the form of mashed pureed fruits, berries and vegetables was mixed with chilled eggwhite and whipped until a lush mass was formed, at the end of whipping, prepared gelatin was introduced, the mass was poured into molds and cooled. The sources of geroprotectors were beetroot juice and puree - a source of betaine, apricot juice and puree - a source of easily digestible potassium, blueberry juice and puree - a source of anthocyanins and an retinal blood flow improver, pumpkin puree and juice - a source of iron, zinc, vitamins K, E, carotenoids and a rare vitamin T, contributing to the breakdown of fats, tomato juice and puree - a source of antioxidant lycopene. In the prescription mixture, sugar was replaced with fructose and maltodextrin. During the studies, the physicochemical and organoleptic indicators of the quality of the finished desserts were studied. New types of products and technologies for their production are protected by patents.

### References

1. Биология старения / Руководство по физиологии. — Л.: Наука, 1982. — 616 с.
2. Григоров Ю.Г., Семесько Т.М., Козловская С.Г. и др. Сравнительная оценка фактического питания и состояния здоровья людей старших возрастов // Проблемы старения и долголетия. — 2002. — Т. 11, № 1. — С. 78—86.
3. <https://cyberleninka.ru/article/n/k-voprosu-o-zdorovom-pitanii-v-pozhilom-i-starcheskom-vozhraсте>
4. <http://geront.kiev.ua/>

5. <https://www.bsmu.edu.ua/blog/3405-osoblivosti-harchuvannya-u-litnomu-i-starechomu-vitsi/>
6. <http://dspace.nuft.edu.ua/jspui/handle/123456789/15665>