



## IMPORTANCE OF DIETARY FIBERS IN HEALTH

**Hamzayeva Nargiza Rajabbayevna<sup>1</sup>,**

<sup>1</sup>Assistant teacher, Department of Zoology and Physiology, Faculty of Natural Sciences, Karshi State University. Karshi "Kuchabog"-17 [galorisbk@mail.ru](mailto:galorisbk@mail.ru)  
+998938022117

**Do`stov Karim Turayevich<sup>2</sup>,**

<sup>2</sup>Assistant teacher, Department of Zoology and Physiology, Faculty of Natural Sciences, Karshi State University. Karshi "Kuchabog"-17 [dustov-karim@mail.ru](mailto:dustov-karim@mail.ru)  
+998995051436

**Buranova Gulnoza Boymuratovna<sup>3</sup>,**

<sup>3</sup>Assistant teacher, Department of Zoology and Physiology, Faculty of Natural Sciences, Karshi State University. Karshi "Kuchabog"-17 [gulnoza.2015@mail.ru](mailto:gulnoza.2015@mail.ru)  
+998939051085

**Hazratova Hulkar Normurodovna<sup>4</sup>**

<sup>4</sup>Assistant teacher, Department of Zoology and Physiology, Faculty of Natural Sciences, Karshi State University. Karshi "Kuchabog"-17 [hulkarhazratova@mail.ru](mailto:hulkarhazratova@mail.ru)  
+998939357686

Article history:	Abstract:
<b>Received:</b> April 1 <sup>th</sup> 2021 <b>Accepted:</b> April 11 <sup>th</sup> 2021 <b>Published:</b> April 30 <sup>th</sup> 2021	Daily intake foods also contain substances that are not digested in the gastrointestinal tract, do not undergo chemical breakdown and therefore they are not absorbed into the blood and lymph. Such non-nutrients include primarily plant fibers or dietary fiber. Digestive enzymes do not affect the noted high molecular weight organic matter. Therefore, they are often excreted from the body. Satiety effects of dietary fibers are also beneficial for health. It is an important concept in calorie restriction that is crucial in protection some degenerative diseases

**Keywords:** Dietary fibers, digestive system, satiety, degenerative diseases

### INTRODUCTION

Nutrients usually mean digestible substances - proteins, fats and carbohydrates - that are absorbed into the body through food and are absorbed into the blood and lymph due to appropriate physical and chemical changes in the gastrointestinal tract. These minerals also include minerals, vitamins and water that pass unchanged into the blood and lymph in the digestive tract. Digestible nutrients provide the body with the necessary energy and serve as a plastic (building) material for the renewal and regeneration of tissue cells. In addition, they are involved in the formation of various biologically active substances, as well as in a number of chemical processes.

Daily intake diet also rich in non-digestible substances. Such non-nutrients include primarily plant fibers or dietary fiber. Examples include cellulose, hemicellulose, pectin and lignins. The bran of wheat, barley and other grains are the richest in dietary fiber, with up to 50% of this substance. There are some other products such as cereals, buckwheat are also rich in dietary fiber. Black bread, breads with partially wheat bran, also contain 5-10% of this non-digestible substance. Melons, carrots, cabbage, pumpkins, watermelons, are also high in dietary fibers and with the least common occurrence being in fine rice (0.5%). These fibers are not found at all in animal products and sugar. Dietary fiber is found in the peels of fruits such as carrots, cucumbers, apples, plums, cherries, apricots, as well as in pomegranate and grape seeds. Therefore, the consumption of recorded melon products and fruits with peeled seeds by healthy people of the gastrointestinal tract plays an important role in meeting the body's need for these non-toxic substances. Products rich in dietary fiber also include all greens (parsley, green onions, lettuce, etc.).

Although these non-digestible substances are not digested, they are important for the body and should be consumed regularly along with nutrients. Based on the above considerations, it should be focused on the unique properties of dietary fiber, which play an important role in maintaining the health of the human body.

Firstly, they improve the motor function of the gastrointestinal tract, ensuring that the food consumed undergoes timely and appropriate chemical decomposition. In particular, as a result of the occasional contraction and relaxation of the stomach and intestines, nutrients mix with digestive juices, facilitating the action of appropriate enzymes. If the dietary fiber content is very low or non-existent, the motility of the gastrointestinal tract is sharply reduced, the digestive process is disrupted, and a number of diseases related to digestion occur. This is due to the consumption of foods made from highly refined products. Nowadays, as a result of eating bread and various pastries made from high-quality flour, which is often completely free of bran, the body's supply of dietary fiber is deteriorating.

Therefore, when preparing various products from high-grade flour, it is recommended to add a certain amount of wheat bran to them.

Secondly, when there is enough dietary fiber in the diet, cholesterol and bile acids in the intestines accumulate and leave the body. In this way, the increase in cholesterol in the blood is prevented, and the processes of weed formation and decomposition are normalized. Its adequacy in the gastrointestinal tract accelerates the absorption of carbohydrates into the blood in the form of sugar. Therefore, it is very useful for people with diabetes (which is why the bread recommended for such people is rich in bran).

### **SATIETY EFFECTS OF DIETARY FIBERS**

Eating more foods rich in fiber (cabbage, carrots, beets, greens, fruits, etc.) is important in controlling the appetite. As mentioned, they suffocate by absorbing large amounts of water, filling the stomach and making them feel full. Therefore, foods rich in dietary fiber (calorie foods) are effective in helping obese people lose weight. It has been clear that fibers have variety physiological effects and provide a variety of health benefits, such as satiety. Satiety is the feeling of fullness after feeding. It is an important concept in preventing weight gain or promoting weight loss.

### **PROTECTIVE AND SUPPLY FUNCTIONS**

Dietary fiber absorbs and removes various harmful and even toxic substances formed during digestion or taken with food. This situation can be explained by the high water retention property of the recorded bran. For example, wheat bran has the ability to absorb 5 times more water than itself. Therefore, digestion of food consumed without dietary fiber can also lead to intoxication of the body with various iodine substances, reducing the motor function of the gastrointestinal tract. The water-absorbing properties of dietary fiber help to eliminate constipation (constipation) that occurs in the gastrointestinal tract. Constipation can be cured by keeping 3-4 tablespoons of wheat bran in boiling water for 30-40 minutes, then pouring water, squeezing and consuming little (1-2 tablespoons) liquid food, porridge, yoghurt.

Some rich fiber foods, such as wheat and other grains, contains many minerals and vitamins, the body's need for these micronutrients (minerals and vitamins) is not met as a result of a regular diet without dietary fiber. As a result, various diseases (lack of vitamin C, iron, iodine deficiency) associated with micronutrient deficiency occur. Dietary fiber is partially broken down under the influence of microorganisms present in the colon, emits a certain amount of heat and serves to maintain body temperature in the cold season. Therefore, it is difficult to tolerate cold conditions without dietary fiber or if it is consumed with very poor foods. The fact that the local population prefer intake foods rich in dietary fiber (cereals, pumpkin seeds, etc.) in winter and on cold days can also be explained by the fact that such foods do not lower body temperature. It has also been proven that in animals living on the north side, the colon is much longer than on animals living on the south side. This condition keeps the body from cooling down, as the food mixture rich in dietary fiber is stored longer in the recorded intestine. Complete separation of grain bran from their flour leads to peeling of the skin when eating carrots, cucumbers, apples, separation of their seeds when eating fruits such as grapes, pomegranates, as we have seen above, unknowingly does not meet the body's need for nutrients. Also, peeling a carrot to be eaten is to lose part of it that stores the necessary vitamins and minerals.

In short, dietary fiber, along with protein, fat, carbohydrates, vitamins and minerals, are essential products for the body, and their intake in the required amount (an average of 30 g per day) helps to maintain good health.

### **REFERENCES**

1. J. Slavin 2007 "Dietary fiber and satiety" British Foundation,4
2. Витебский Я.Д. Питайтесь рационально. Курган, 1991.
3. Smolyar V.I. Ratsionalnoye pitaniye. Kiyev, 1991.
4. Ratsion, pitaniye i preduprejdeniye xronicheskix zabolevaniy. Doklad issledovatel'skoy gruppi VOZ. Jeneva, 1993.
5. Knyajev V.A., Suxanov B.P., Tutelyan V.A. Pravilnoye pitaniye. Moskva, 1998.
6. Qurbonov Sh.Q., Qurbonov A.SH. Ovqatlanish fiziologiyasining asoslari. Qarshi, 2000.