



MICROFLORA OF THE INTESTINAL TRACT HUMAN IMMUNE DEFENSE

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Abstract: *This article explores the importance of the role of intestinal microflora in the formation and development of the immune system of the human body. In the digestive section of the human body and other mammals there are many groups of bacteria, most of which are symbiont bacteria. They actively participate in the digestive processes and at the same time influence the protective function, including the body's immune system. It was found that when there is an imbalance between beneficial and frankly pathogenic bacteria, there is a sharp increase in the number of immune cells responsible for the inflammatory response.*

Key words: *digestive system, intestinal microbiota, microflora, microflora imbalance, intestinal immune system, foreign microorganisms.*

Аннотация: *Данная статья исследует важности роли микрофлоры кишечного тракта в формировании и развитие иммунной системы человеческого организма. В пищеварительном отделе человеческого организма и прочих млекопитающих находятся множество групп бактерий, большинство из них которые являются бактериями-симбионтами. Они активно участвуют в процессах пищеварения и одновременно влияют на защитную функцию, в том числе иммунную систему организма. Было установлено, что при дисбалансе между полезными и откровенно патогенными бактериями наблюдается резкое повышения количества иммунных клеток, ответственных за воспалительную реакцию.*

Ключевые слова: *система пищеварения, микробиота кишечника, микрофлора, дисбаланс микрофлоры, иммунная система кишечника, чужеродные микроорганизмы.*

The intestinal microbiota plays a big role in the strength of the body's immune system. The main functions of the intestinal tract are food processing, assimilation of necessary beneficial molecules, removal of toxins and protection from microorganisms foreign to the body. Processing of food and elimination of unnecessary substances occurs as a result of the actions of enzymes, bile acids, and intestinal motility.

Representatives of the intestinal microflora produce vitamin K and B vitamins (B1, B2, B3, B5, B6, B7, B9 and B12). In turn, these vitamins are responsible for nervous regulation, immunity, cell growth and development, the condition of the skin and mucous membranes, and the ability to cope with stress. Almost a quarter of the intestinal mucosa is considered immunologically active tissue that constantly fights against foreign agents. It is 80% of the immune cells that protect our body from harmful bacteria that are concentrated in the human intestines.



Our microflora performs the function of a filter and is formed under normal microflora. In order to firmly resist all external threats, for excellent well-being and good health, the intestinal microflora must consist exclusively of the necessary microorganisms in sufficient quantities. Beneficial intestinal microflora helps regulate immune responses to invading pathogenic bacteria. In addition, a healthy digestive system is the main condition for the proper absorption of food and beneficial components that enter our body. This is very important, because vitamins and minerals must be absorbed and not passed through in transit. Their absorption occurs in the intestines.

Proper nutrition is the most important thing in improving bowel function and ensuring a strong immune system. Therefore, you need to add as many vegetables and fruits, dairy products, fish and lean meat to your diet as possible. To maintain a strong immune system, the most important condition is a comprehensive, proper diet. Follow these helpful nutrition tips:

- give up smoked foods, sweet carbonated waters, chips, French fries, semi-finished products;
- avoid eating products containing artificial colors and preservatives;
- prepare food by steaming or baking;
- balance your diet in terms of mineral and vitamin composition;
- limit your consumption of alcoholic beverages.

All intestinal problems can be solved on your own, but do not forget to consult with specialists. It is advisable to solve problems in the early stages of their manifestation. Play sports, protect yourself from stress and negative emotions. A negative emotional state is a serious threat to intestinal health and immunity. Think positively, since the health of the digestive system and the body as a whole depends at least 30% on this.

LITERATURE:

1. Александров В.А. Основы иммунной системы желудочно-кишечного тракта.- методическое пособие.- Санкт -Петербург: МАПО. 2006.-С.44.
2. Мухина Ю.Г., Дубровская М.И., Кафарская Л.И. Иммунная система и микрофлора кишечника у детей. Обоснование функционального питания. Фарматека.- 2006.-№2.-С. 22-28.
3. Блат С.Ф., Хавкин А.И. Микробиоценоз кишечника и иммунитет // Рос. вестн. перинатол. и педиат. 2011. Т. 1 (56). С. 66–72 [Blat S.F., Havkin A.I. Mikrobiocenozi kishechnika i immunitet // Ros Vestn Perinatol Pediat 2011. T. 1 (56). S. 66–72 (in Russian)].
4. Kurbanova, I., Kamalova, D., Djalolova, D., & Akhmedov, M. (2021, November). Dynamical analysis of improvement of the needle mechanism in sewing machines. In *AIP Conference Proceedings* (Vol. 2402, No. 1). AIP Publishing.
5. Kamalova, D. (2023). YOD TANQISLIGINING TA'SIRI. *Евразийский журнал академических исследований*, 3(4), 135-139.



6. Камалова, Д. А. (2019). Изменения в практике оплаты труда на производстве. *Международный научно-исследовательский журнал*, (10-2 (88)), 67-69.
7. Камалова, Д. А., & Искандарова, Ш. Т. (2013). Организация эффективных медико-санитарных мероприятий в борьбе с алкоголизмом и наркоманией. *Вестник экстренной медицины*, (3), 213-214.
8. Zafarbek Mirzaolimovich Komilov, & Qo'chqorov Oybek G'ulomovich. (2023). UBAYDULLON KANHOL – XVI ASR O'RTA SHARQ YIRIK OKULISTI . *Новости образования: исследование в XXI веке*, 2(15), 217-220.
9. Комилова Дилдора Алишеровна. (2023). АДАПТАЦИЯ И АДАПТАЦИОННЫЕ РЕЗЕРВЫ ОРГАНИЗМА. *Новости образования: исследование в XXI веке*, 2(15), 221–223.
10. Kamalova, D. (2023). The value of the universal progressive model in working with mothers and children in the primary care system. *Texas Journal of Multidisciplinary Studies*, 20, 60-62.
11. Рузматова, Х. К., Камалова, Д. А., & Мухаммадова, Г. К. (2023). НАРОДНОЕ ЛЕЧЕНИЕ РАКА ЛЕГКИХ. "GERMANY" MODERN SCIENTIFIC RESEARCH: ACHIEVEMENTS, INNOVATIONS AND DEVELOPMENT PROSPECTS, 9(1).