DIARRHEAL DISEASES: GLOBAL IMPACT, RISKS, AND PREVENTION

Ibraximova H.R., Artiqov I.A., Yoqubov Q.Y., Atadjanova O.N.
Urgench State Medical Institute, Urgench, Uzbekistan

Received: 28.11.2025
Revised: 29.11.2025
Accepted: 01.12.2025
Key words:
Prevention, diarrhea, children, transmission route,infectious diseases.

Annotation. Socio-economic, cultural and geographical factors, the age of patients, their body condition and living conditions play an important role in the occurrence and development of intestinal diseases in adults. The improvement of living conditions and sanitation for children in our country is probably due to a decrease in the incidence rate in the country. When developing practical recommendations to study the causes of the increase in the number of diseases and deaths among children and to reduce them, it is necessary to take into account all factors affecting the health of the population, including the degree of infection.

Diarrheal diseases are widespread and common across the globe. They are among the illnesses that not only occur frequently but also cause significant economic losses, making them a central focus for researchers worldwide. The severe and prolonged course of these diseases, particularly in children, leads to a considerable increase in mortality rates, which drives continuous scientific inquiry and research in this field.

It is particularly important to note that these diseases not only lead to the premature death of children or cause substantial economic damage, but also pose a threat to the foundation of forming a healthy generation. This, in turn, affects both the physical and mental development of the child — resulting in irritability, apathy, weakness, and a greater susceptibility to superstitions and illnesses. Consequently, it leads to both moral and additional economic losses for society.

Moreover, diarrheal diseases often create the foundation for chronic somatic illnesses such as gastritis, enteritis, enterocolitis, colitis, and others — leaving individuals suffering for a lifetime or even becoming disabled. Intestinal infections are widespread worldwide, and millions seek medical help each year due to these conditions. These infections are prevalent not only in developing countries but also in developed ones. They are typically transmitted through contaminated food or water, with primary causes being poor sanitation and improper food handling and storage practices.

Diarrheal diseases can be caused by bacteria, viruses, or parasites. During the summer months, rising temperatures and increased human interaction with water, fruits, vegetables, and food lead to a surge in intestinal infections and gastroenteritis. These seasonal infections are mainly due to failure to follow hygiene and safety guidelines

and consuming unclean water or contaminated food. In hot weather, food spoils quickly, allowing bacteria and viruses to proliferate. Many people also neglect hygiene rules during eating, and drinking untreated water adds further risk.

In the summer, people often travel more and go to beaches and recreational areas, increasing interpersonal contact and facilitating the spread of viruses and bacteria — such as norovirus and rotavirus, which spread rapidly during summer. Lack of clean water and neglect of sanitation in this season significantly heighten infection risks. Diarrheal diseases are often transmitted through unboiled water. Children and the elderly are especially vulnerable due to weaker immune systems.

Despite increasing temperatures in summer, storing food for long periods, not maintaining required temperatures, or consuming improperly stored food all contribute to rising infections. Intestinal infections are particularly dangerous for children, the elderly, and pregnant women. Their underdeveloped or weakened immune systems make it harder to fight off infections.

In children, intestinal infections can lead to severe complications very quickly — especially dehydration, as the loss of water and electrolytes becomes a major issue. This can rapidly turn critical and require immediate medical attention. Children often experience fever and pain during such infections, which may distress them physically and emotionally. Children also spend a lot of time in public spaces (schools, kindergartens, etc.), contributing to the wide spread of infections.

Elderly individuals, especially those over 65, often have weakened immune systems and declining physical conditions, increasing the likelihood of severe complications from intestinal infections. They also struggle more with maintaining hydration, and infections can rapidly accelerate fluid loss, requiring urgent medical care. Dehydration, salt imbalance, and the effects of infections can cause drastic changes in blood pressure and demand precise diagnosis and treatment. Elderly individuals typically require prompt and effective medical care to manage these conditions.

Pregnant women are also at special risk from intestinal infections, as the infections can harm both the mother and the developing fetus. The body of a pregnant woman undergoes specific changes that can intensify the impact of infections. Additionally, fluid and mineral loss may harm the fetus. Toxicoses resulting from infections, such as high fever and headaches, can also negatively affect fetal development. If a pregnant woman contracts an infection, medical supervision is essential to ensure it does not adversely affect the fetus. Infection may result in low birth weight, making timely treatment of any infection crucial.

To prevent intestinal infections, it is important to follow these key measures:

- Wash hands thoroughly before eating and after using the restroom to reduce the spread of infections.
- Ensure food is properly cooked and kitchen utensils are cleaned thoroughly.
- Avoid drinking unclean or untreated water, as it increases the risk of infection.
- Protect food from flies and other carriers of infection.

- Use vaccines — for example, rotavirus vaccine is recommended for children to prevent viral intestinal infections.
- Seek medical help immediately if signs of intestinal infection appear, as delayed treatment can lead to serious complications.

Conclusion: In summary, significant progress has been made in treating and preventing acute diarrheal diseases, and there are a number of effective recommendations and practices that are crucial for their rational management and prevention. However, developing and implementing simpler, more effective, and more practical prevention methods tailored to specific climatic and geographic regions remains a current necessity. Building knowledge and skills for primary prevention of diarrheal diseases — especially among sensitive groups like children — will not only help prevent acute diarrheal diseases but also reduce the spread of other infectious diseases.

References

1. SH, Y. S., YOQUBOV, Q., & NURLLAYEV, R. (2025). FEATURES OF THE COURSE OF THE HERPES TYPE 4 VIRUS IN CHILDREN. Multidisciplinary Journal of Science and Technology, 5(3), 397-402.
2. NURLLAYEV, R., SH, Y. S., & YOQUBOV, Q. (2025). PECULIARITIES OF THE ETIOLOGICAL STRUCTURE OF ACUTE DIARRHEAL DISEASES IN THE CONDITIONS OF THE SOUTHERN ARAL REGION. Multidisciplinary Journal of Science and Technology, 5(3), 403-408.
3. Razzokberganova, D. O., Ibragimov, S. J., Bobojonov, Y. B., & Yoqubov, Q. Y. (2025). EPIDEMIOLOGICAL AND CLINICAL CHARACTERISTICS OF ENTEROBIASIS. Multidisciplinary Journal of Science and Technology, 5(2), 665-668.
4. Yoqubov, Q. Y., Bobojonov, Y. B., Razzokberganova, D. O., & Ibragimov, S. J. (2025). FEATURES OF THE COURSE AND SPREAD OF TENIARINCHOSIS DISEASE. Multidisciplinary Journal of Science and Technology, 5(2), 669-672.
5. Sadullaev, S. E., Ibragimov, S. J., Bobojonov, Y. B., Yoqubov, Q. Y., Abdullayeva, D. K., & Khasanova, J. R. (2024). PREVALENCE OF DIARRHEAL DISEASES IN THE REPUBLIC OF UZBEKISTAN. International Journal of Education, Social Science & Humanities, 12(3), 356-363.
6. Атаджанова Ойдин Нуруллаевна, & Хасанова Мохира Фархадовна (2024). ПЕРСПЕКТИВА ПРИМЕНЕНИЯ ФИТОТЕРАПИИ У БОЛЬНЫХ ТУБЕРКУЛЕЗОМ ЛЕГКИХ. Вестник науки и образования, (1 (144)-2), 73-77.

7. Хасанова Мохира Фархадовна, Атаджанова Ойдин Нуруллаевна, & Худойберганов Расулбек Тураевич (2024). СРАВНИТЕЛЬНЫЙ АНАЛИЗ СОЦИАЛЬНЫХ, ЭКОНОМИЧЕСКИХ ФАКТОРОВ РАЗВИТИЯ ТУБЕРКУЛЕЗА СРЕДИ ПОДРОСТКОВ ШКОЛЬНОГО ВОЗРАСТА. Вестник науки и образования, (4 (147)-2), 92-96.
8. Атаджанова, О. Н., Юсупов, Ш. Р., & Хасанова, М. Ф. (2024). Анализ социальных, экономических факторов развития туберкулеза среди подростков школьного возраста. ВЕСТНИК НАУКИ И ОБРАЗОВАНИЯ, 65-67.
9. Атаджанова Ойдин Нуруллаевна (2023). ОСОБЕННОСТИ ТЕЧЕНИЯ ЗАБОЛЕВАНИЯ ПЛЕВРЫ И ЛЕГКИХ У ВИЧ АССОЦИРОВАННЫХ БОЛЬНЫХ. Academy, (3 (76)), 21-24.
10. ARTIQOV, I., & ABDULLAYEVA, D. (2025). THE SPREAD OF DIARRHEAL DISEASES IN THE KHOREZM REGION. Multidisciplinary Journal of Science and Technology, 5(3), 672-677.
11. ARTIQOV, I., & ABDULLAYEVA, D. (2025). CHICKENPOX: AMONG YOUNG CHILDREN IN KHOREZM REGION. Multidisciplinary Journal of Science and Technology, 5(3), 678-683.
12. Машарипова, Ш. С., Артиков, И. А., & Матякубова, О. У. (2021). РАСТРОЙСТВА ПСИХИКИ У БОЛЬНЫХ ДЕСТРУКТИВНЫМИ ФОРМАМИ ТУБЕРКУЛЕЗА В УСЛОВИЯХ ПАНДЕМИИ COVID-19. Journal of cardiorespiratory research, 2(3), 73-77.
13. Urinovna, M. O., Kadamovna, A. D., Axmedjonovich, A. I., & Salibayevna, I. S. (2025). CLINICAL FEATURES OF SALMONELLOSIS IN CHILDREN. Multidisciplinary Journal of Science and Technology, 5(5), 333-339.
14. Urinovna, M. O., Kadamovna, A. D., Axmedjonovich, A. I., & Salibayevna, I. S. (2025). CLINICAL FEATURES OF HYMENOLEPIASIS IN CHILDREN. Multidisciplinary Journal of Science and Technology, 5(5), 340-346.
15. Артиков, И. А., Отажанов, Ш. З., & Садуллаев, С. Э. (2025). ПАТОМОРФОЛОГИЧЕСКИЕ АСПЕКТЫ ДЕТСКОГО ЛИМФОБЛАСТНОГО ЛЕЙКОЗА. Multidisciplinary Journal of Science and Technology, 5(6), 257-264.
16. Urinovna, M. O., Axmedjonovich, A. I., Salibayevna, I. S., & Odilbekovna, R. D. (2025). COVID-19 INFECTION AND MENTAL DISORDERS. Multidisciplinary Journal of Science and Technology, 5(5), 900-905.
17. Urinovna, M. O., Axmedjonovich, A. I., Salibayevna, I. S., & Odilbekovna, R. D. (2025). PRINCIPLES OF TREATMENT AND PREVENTION OF

ACUTE INTESTINAL INFECTIONS. Multidisciplinary Journal of Science and Technology, 5(5), 906-912.
18. Urinovna, M. O., Axmedjonovich, A. I., Salibayevna, I. S., & Odilbekovna, R. D. (2025). GASTROINTESTINAL SYSTEM AND IMMUNITY. Multidisciplinary Journal of Science and Technology, 5(5), 913-918.
19. Ibrakhimova, H. R., & Nurllayev, R. R. (2023). A method for obtaining precipitating serums for the detection of human seminal fluid used in the study of physical Evidence in forensic biological laboratories. World Bulletin of Management and Law, 19, 42-44.
20. Машарипова, Ш. С., Ибрахимова, Х. Р., & Машарипов, С. М. (2023). Анализ эпидемиологических особенности диарейных заболеваний у детей южного приаралья. O'ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 2(15), 884-887.
21. Ибрахимова, Х. Р., Нурллаев, Р. Р., & Артиков, И. А. (2020). ВЫЯВЛЕНИЕ ТУБЕРКУЛЕЗА В ХОРЕЗМСКОЙ ОБЛАСТИ. Наука и образование сегодня, (6-1 (53)), 83-84.
22. Rustamovna, I. H. (2024). Pathogenetic principles of acute infectious intestinal infections and features of clinical course among children of different ages. Multidisciplinary Journal of Science and Technology, 4(2), 357-365.
23. Аскарова, Р. И., Юсупов, Ш. Р., & Ибрахимова, Х. Р. (2020). Анализ причин развития туберкулеза у детей и подростков. Главный редактор–ЖА РИЗАЕВ, 27.
24. Ибрахимова, Х. Р., Отажанов, Ш. З., & Матякубова, О. У. (2019). ТУБЕРКУЛЕЗНЫЙ МЕНИНГИТ У БОЛЬНЫХ, ПРОЖИВАЮЩИХ В ХОРЕЗМСКОЙ ОБЛАСТИ. In INTERNATIONAL SCIENTIFIC REVIEW OF THE PROBLEMS OF NATURAL SCIENCES AND MEDICINE (pp. 96-104).
25. Ibraximova, H. R., Nurllayev, R. R., & Matyaqubova, O. U. (2023). KICHIK YOSHDAGI BOLALAR ORASIDA ICHAK PARAZITAR KASALLIKLARINING EPIDEMIOLOGIK XUSUSIYATLARI. Новости образования: исследование в XXI веке, 2(15), 109-114.
26. Ибрахимова, Ҳ. Р. (2022). ПАРАЗИТАР КАСАЛЛИКЛАР ТАШҲИСЛАНГАН ТУРЛИ ЁШДАГИ ОДАМЛАРДА ИММУН СТАТУСИГА ТАВСИФ. Academic research in educational sciences, 3(4), 812-819.
27. Юсупов, Ш. Р., Абдуллаева, Д. К., Машарипова, Ш. С., & Матякубова, О. У. (2020). Применение пектина в комплексной терапии при острых кишечных инфекциях. Вестник науки и образования, (5-2 (83)), 51-56.

28. Юсупов, Ш. Р., Ибрагимова, Х. Р., Машарипова, Ш. С., Якубова, У. Б., & Рахимбаев, М. Ш. (2015). Особенности этиологической структуры острых диарейных заболеваний в условиях Южного Приаралья. Вісник проблем біології і медицини, (3 (1)), 246-248.
29. Игамова, М. А., & Облокулов, А. Р. Иброхимова ҲР (2023). Тениаринхоз ташҳисланган турли ёшдаги беморларда иммун ва цитокин статусига тавсифи. Тиббиётда янги кун-2023.-5 (55)-Р, 613-618.
30. Ibrakhimova, H. R. (2023). Masharipova Sh. S, & Artikov IA, 103-108.
31. Ibraximova, H. R., Mo'minov, I. X., & Niyazmetov, T. O. (2025). OVQATLANISH VA IMMUNITET. Journal of science-innovative research in Uzbekistan, 3(2), 134-138.
32. Sh, Y. S., & Ibrakhimova, H. R. (2023). IMMUNOLOGICAL CHARACTERISTICS OF PATIENTS WHOSE BODY IS INFECTED WITH CATTLE SOLITAIRE. Новости образования: исследование в XXI веке, 2(15), 120-124.
33. Ibraximova, H. R., Nurllayev, R. R., Bazarov, M. Y., & Rajabova, M. Q. (2025). BASICS OF PREVENTING PARASITIC INFECTIONS AMONG CHILDREN. Multidisciplinary Journal of Science and Technology, 5(2), 306-310.
34. Ибрахимова, Х. Р., Нурллаев, Р. Р., & Раззокберганова, Д. О. (2025). ПОКАЗАТЕЛИ РАСПРОСТРАНЕННОСТИ ПАРАЗИТАРНЫХ ЗАБОЛЕВАНИЙ В НАСЕЛЕНИИ. Multidisciplinary Journal of Science and Technology, 5(6), 1234-1240.
35. Ibraximova, H. R., & Sadullaev, S. E. (2025). THE EFFECT OF PROPER NUTRITION ON IMMUNITY IN CHILDREN. Multidisciplinary Journal of Science and Technology, 5(6), 1229-1233.