



HYGIENIC ASPECTS OF USING MOBILE COMMUNICATION BY STUDENTS

Niyazova O. A., Kosimova Kh.T., Jalolov N.N.
Tashkent Medical Academy, Tashkent, Uzbekistan

Relevance. The problem of the adverse effects of electromagnetic radiation (EMR) on humans has now become extremely relevant due to the increasing number of cellular communication devices and their spread among the population. The number of subscribers to mobile communication systems has increased dramatically in record time and continues to grow. Students often use a mobile phone.

Many scientists from different countries of the world admit a high risk of exposure to electromagnetic fields of mobile phones on the human body. The effects of cell phones on the brain can cause headaches, fatigue, and insomnia. A number of authors believe that the increase in headache complaints is directly related to the use of cellphones. A very important conclusion is made in scientific papers: the number of complaints of headache and fatigue depends on the duration of mobile conversations during the day.

Purpose of the study. To study the prevalence and use of cellular communication among students, the impact of EMF emitted by mobile phones on their health.

Materials and methods of research. A survey of 208 students of the Tashkent Medical Academy, courses 1-4, was conducted. The questionnaire contained 30 questions with programmable answers. All questions on the content can be divided into 4 blocks: the prevalence of mobile phones among students, features and modes of using mobile phones, features and modes of using personal computers, laptops (associated radiation), indicators of morbidity and functional state of the body. Further, statistical data processing was carried out.

Research results. The prevalence of mobile phone users among students of the Tashkent Medical Academy is very high and amounts to 100%, while personal phones are also used by 100% of students.

The most common way to carry mobile phones, regardless of age, is in the pockets of the 2nd layer of clothing-82%, and only 18% of students carry a mobile phone in a briefcase, bag, backpack. From a hygienic point of view, carrying a phone on your chest and in the pockets of your clothes is a risk factor for mobile phone users.

When studying the gender specifics of mobile phone use, a significant difference was found between boys and girls in terms of the number of mobile phone conversations and the total conversation time per day. So, it was found that girls speak 1.4-1.9 times more on the phone than boys.

The conducted studies revealed the cumulative effect of the negative impact of mobile phones, depending on the length of time spent using cellular communications. The study of health indicators among students with 4-5 years, 6-7 and 8-9 years of

experience in using the phone revealed a deterioration in indicators with an increase in the length of time spent using the phone. Thus, the frequency of headaches increased by 3.4% with 6-7 years of experience compared to 4-5 years of experience. Difficulties of conception were detected 2.6% more often in the group with 8-9 years of experience compared to the group with 6-7 years of experience. The most significant deterioration was observed in the indicator of the number of diseases per year with an increase in temperature. The incidence of diseases increased by almost 6%.

Conclusion. The combined effects of a mobile phone (ultra-high frequency EMF) and computer load (low frequency EMF) have the greatest negative impact on the health of students working on a PC for more than 2 hours a day, with a maximum daily mobile phone conversation time of more than 40 minutes.

Used literature.

1. Niyazova, O. A. (2018). STUDY OF THE INFLUENCE OF PHYSICAL EDUCATION ON THE FUNCTIONAL STATE OF THE ORGANISM OF PUPILS OF COMPREHENSIVE SCHOOLS. *Medical Scientific Bulletin of Central Chernozemye (Naučno-medicinskij vestnik Central'nogo Černožem'â)*, (73), 54-58.

2. Ниязова, О. А., & Хайитов, Ж. Б. (2018). ОСНОВНЫЕ ПРИЧИНЫ ПИЩЕВЫХ ОТРАВЛЕНИЙ у ДЕТЕЙ. *Детская медицина Северо-Запада*, 7(1), 234-234.

3. Niyazova, O. A., & Mirsagatova, M. R. (2024). THE STUDY OF RISK FACTORS FOR THE DEVELOPMENT OF CARIES IN PUPILS OF THE FIRST GRADES IN SECONDARY SCHOOLS.

4. Ниязова, О., & Саломова, Ф. (2022). Studying changes in the health state of school children arising from incorrect fitting.

5. Ниязова, О. А., & Валиулин, Р. И. (2022). *Изучение и гигиеническая оценка фактического питания студентов (Doctoral dissertation, Молодежный инновационный вестник. Научно-практический журнал Том 11)* (Doctoral dissertation, Doctoral dissertation, Молодежный инновационный вестник. Научно-практический журнал).

6. Саломова, Ф. И., Ахмадалиева, Н. О., Ниязова, О. А., & Хайруллаева, Л. Г. (2022). Изучение и гигиеническая оценка питания студентов Высших учебных заведений (узбекистан, германия).

7. Ниязова, О., Ахмадалиева, Н. О., Саломова, Ф. И., & Валиулин, Р. И. (2022). Определение степени удовлетворенности студентов питанием в столовых высших учебных заведений. In *Сборник материалов международной научно-практической конференции*.

8. Niyazova, O. A. (2024). Nutritional features of pregnant women.

9. Юлдашева, Ф. У., & Ниязова, О. А. (2025). МЕДИКО-СОЦИАЛЬНОЙ ПОМОЩЬ НАСЕЛЕНИЮ. *Empowerment of youth intellectual success (EYIS)*, 1(1), 35-37.

10. Niyazova, O. A., & Rustamova, B. B. (2024). Studying The Duration And Nature Of The Use Of Cell Phones, Laptops And Their Impact On The Health Of Students Of Higher Education Institutions.

11. Niyazova, O. A. (2024). Analysis of the influence of nutrition on the frequency of gastritis in students of tashkent.

12. Косимова, Х. Т., & Садирова, М. К. (2018). Нормативная база для проведения мониторинга по изучению влияния соединений азота на здоровье населения. In *INTERNATIONAL SCIENTIFIC REVIEW OF THE PROBLEMS OF NATURAL SCIENCES AND MEDICINE* (pp. 30-32).
13. Косимова, Х. Т., & Садирова, М. К. (2018). ОЦЕНКА ТЯЖЕСТИ И НАПРЯЖЕННОСТИ ТРУДОВОЙ ДЕЯТЕЛЬНОСТИ ВРАЧЕЙ ФИЗИОТЕРАПЕВТИЧЕСКИХ КАБИНЕТОВ. In *WORLD SCIENCE: PROBLEMS AND INNOVATIONS* (pp. 276-278).
14. Kasimova, K. T. (2024). The Role Of Ecology In The Development Of Cardiovascular Diseases.
15. Khilola, T. K. (2024). Assessment of environmental conditions in tashkent and relationship with the population suffering from cardiovascular diseases.
16. Косимова, Х. Т., Мамаджанов, Н. А., & Ибрагимова, Ш. Р. (2020). РОЛЬ СОВРЕМЕННЫХ ПЕДАГОГИЧЕСКИХ ТЕХНОЛОГИЙ В ДАЛЬНЕЙШЕМ СОВЕРШЕНСТВОВАНИИ СИСТЕМЫ ВЫСШЕГО МЕДИЦИНСКОГО ОБРАЗОВАНИЯ В РЕСПУБЛИКЕ УЗБЕКИСТАН. *Новый день в медицине*, (1), 88-90.
17. Акромов, Д. А., & Касимова, Х. Т. (2017). Результаты изучения токсикологических свойств фунгицида "Вербактин". *Молодой ученый*, (1-2), 2-3.
18. Salomova, F. I., & Kosimova, H. T. (2017). RELEVANCE OF STUDYING INFLUENCE OF THE BONDS OF NITROGEN POLLUTING THE ENVIRONMENT ON HEALTH OF THE POPULATION SUFFERING CARDIOVASCULAR ILLNESSES (REPUBLIC OF UZBEKISTAN). In *INTERNATIONAL SCIENTIFIC REVIEW OF THE PROBLEMS AND PROSPECTS OF MODERN SCIENCE AND EDUCATION* (pp. 81-83).
19. Tursunov, D., Sabiorva, R., Kasimova, X., Azizova, N., & Najmiddinova, N. (2016). Status of oxidant and antioxidant systems in alloxan diabetes and ways its correction. In *Science and practice: a new level of integration in the modern world* (pp. 188-190).
20. Sadullaeva, K. A., Salomova, F. I., & Sadirova, M. K. (2023). CAR WASHES AS A SOURCE OF ENVIRONMENTAL POLLUTION. *Academia Repository*, 4(12), 340-344.