

MEDICAL AND BIOLOGICAL PHYSICS AS AN EDUCATION COMPONENT IN THE STRUGGLE AGAINST TOBACCO SMOKING

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This paper discusses the role of the discipline "Medical and Biological Physics" in the area of medical education as a component of educational work upon the negative impact of smoking on human health. Some Ukrainian legislative acts for regulation of tobacco smoking are emphasized. Statistical data of tobacco smoking in Ukraine are shown.

The problem of smoking, the use of electronic cigarettes and their effects on human health are intensively studied in the research of Ukrainian and foreign authors, but the description of negative smoking impact is not presented from the point of view of physical processes. Therefore, it became necessary to illustrate the most important problems from the point of view of medical physics

The latest medical data allows including in the educational process on the discipline "medical and biological physics" some information about the negative effects of smoking on processes and phenomena in the human body, interpreting them from a physical point of view. The medical and biological orientation of the discipline is shown.

The paper illustrates examples from this topic with the description of physical phenomena and physical regularities which explain the results of tobacco smoking. They are applied in educational process of the Biological Physics and Medical Informatics Department at the Higher State Educational Establishment of Ukraine "Bukovinian State Medical University". The most important examples in studying tobacco influence on human health are discussed in the lessons on: "Ultrasound, its application in treatment and diagnostics", "Fluid mechanics. Viscosity of liquids", "Liquids surface tension", "Thermal radiation of biological objects", "Radioactivity. Dosimetry"

The relationship between clinical subjects and medical and biological physics is shown.

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