



ORGANIZING COURSES ON THE EFFECTS AND CONSEQUENCES OF ELECTRIC CURRENT ON THE HUMAN BODY

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Abstract: *This article explains how to set up lessons for students on the physical characteristics of electricity, how to use it safely, and how to administer first aid in case of an accident. Additionally, details are provided regarding the direct current electrical conductivity of biological tissues and liquids.*

Key words: *electricity, injuries, first aid, human health, biological tissues.*

One of the main elements determining success in this direction is the acquisition of modern knowledge, skills, and qualifications by the leaders and pedagogues of educational institutions, as well as scientific research of innovative informational and didactic forms of education. Comprehensive reforms implemented in our nation's education system are intended to ensure the high quality of education. This in turn necessitates a thorough overhaul of the educational system, as a strong educational system is crucial to producing graduates who are independent and creative in every way, hence deciding the intellectual potential and future growth of our country.

Research is now being done on the topics of enhancing the educational system based on cutting-edge technology, bolstering its national foundation, and developing qualified, competitive, socially active individuals at the level of global standards. Quality improvements and high effectiveness in education depend on how well they align with international educational standards and how much they put pedagogues' newly acquired skills to use in their future employment. A pedagogical innovation process is established as a result of quality improvements and high educational efficiency, as well as the introduction of beneficial innovations in this area.

In order to prepare future specialists for work in new environments, pedagogical innovation involves making improvements to education on the basis of previously acquired knowledge and developing fresh strategies for achieving high productivity. The objective of such a system is to enhance the quality indicators of the educational system, which represent the fundamentals of education, signs, opportunities, and tasks, as well as the mechanisms and guiding principles of development, methodological recommendations for their application, and the process of developing the relevant pedagogical qualities. understood. The capacity of the teaching staff is currently a factor in the challenges of educational reform.

Studies and analyses reveal that modern pedagogues fall short of the standards set by rapidly evolving educational processes in terms of professional competence. This circumstance demonstrates the importance of issues pertaining to the advancement of pedagogical education and the enhancement of pedagogues' training in the process of continuous education. The severity of these issues is undeniable, including the lack of pedagogical staff who are adequately prepared to



respond to and overcome changes brought about by the rapid updating of the educational system, the presence of modern social demands for education, the character and work of teachers, and the training of pedagogical staff who are not adequately responsive to these requirements, the state of the retraining and professional development system is reflected.

The training sessions on the effect of electric current on the human body and the first medical aid provided are also organized directly based on pedagogical skills. Extensive use of didactic tools ensures that students acquire deep understanding and skills of the topics to be covered.

The electrical conductivity of some parts of the body between the electrodes placed directly on the body depends on the resistance of the skin and subcutaneous layers. In the body, the current spreads mainly through the blood and lymphatic vessels, muscles, and the sheaths of the nerve columns.

The electrical conductivity of tissues and organs depends on their functional state, so it can be used as a diagnostic indicator. For example, when cells swell during inflammation, cross-sections of intercellular junctions decrease and electrical resistance increases. Physiological events that cause excessive sweating are observed along with an increase in skin electrical conductivity.

Ions and electrons in the air can combine with neutral molecules and suspended particles to form more complex ions. Such ions in the atmosphere are called aeroions. They differ not only in their signs, but also in their mass. They are conventionally divided into light (gas ions) and heavy suspended charged particles (dust, moisture and smoke particles) ions.

Natural aeroionotherapy associated with standing of the patient in places with high air ionization in natural conditions (mountains, waterfalls, etc.) can be replaced by artificial aeroionotherapy carried out using special devices aeroionizers. However, artificial aeroionotherapy should be harmless to the body when used for therapeutic purposes.

One of its types is an electrostatic shower (franklinization). A high-voltage (up to 50 kV) direct electric field is used during Franklinization. At this time, the generated aeroions and a small amount of azone show a therapeutic effect. Frankinization is carried out in the form of general and local treatment measures. During general franklinization, the patient sits on a wooden chair with an insulated metal plate, the metal plate is connected to the positive pole of the apparatus. A "spider"-shaped electrode is placed on the top of the patient's head at a distance of 10-15 cm. This electrode is connected to the negative pole of the device.

Procedures for saving an electrocuted person from electrocution. It should never be forgotten that it is dangerous to touch a person who is under the influence of electricity. Caregivers should take the following precautions:

- In order to save the injured person from the effects of current, it is necessary to disconnect the rubilpnik that is closest to him.
- If it is not possible to disconnect the rubyapnik quickly, the injured person

in order to separate from the effect of the current, the rescuer should wear rubber gloves or wrap a scarf on his hand, lower his arm, and if possible, put a dry board under his feet. It is recommended to work with one hand during the rescue. If the voltage is lower than 400 volts, it is necessary to short-circuit the wires or cut the wires with a dry-handled ax.

Artificial respiration. A person who has been electrocuted may lose consciousness, have a pulse, and may stop breathing. In such cases, urgent measures should be taken to restore the breathing process.

Method 1. The injured person is placed on his stomach with his face turned to one side. He puts one hand under his head to raise his head a little. The helper should stand on his knees and put his



palms on the lower ribs of the injured person, holding them from the side with his fingers, and crush them in one rhythm (15 times per minute).

In case 2, the injured person should be blown into the mouth 10-12 times per minute.

Method 2. The injured person is laid on his back. The head should be slightly lower. The artificial respiration person puts the injured person with his knee on the head side and alternately puts his hands on one chest and raises them (15 times per minute). The second person pulls out the injured person's tongue. He should continue artificial respiration until the doctor arrives. It is necessary to massage the heart to ensure blood circulation. For this, it is necessary to press the chest 60-70 times per minute. It is absolutely impossible to bury a person who has been hit by a vine in the mud.

Conclusion. The following are the safety rules for working with electric tools:

- ✓ students who know how to work with this tool and have certain training are allowed to work with the permission of the teacher and under his supervision.
- ✓ The student should learn the rules of using an electric tool, the specific features of each tool, and the teacher should give him permission to master the instructions.
- ✓ The teacher should first personally inspect all electrical equipment used by students and ensure that the wiring is intact, grounded, and that the electrical equipment is working properly.

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