

RESEARCH OF FEATURES OF LITHIUM BATTERY MANAGEMENT OF KhNMU STUDENTS

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Introduction. Modern society seeks to live in an environmentally friendly environment, so the problem of preserving and purifying nature from pollutants, such as batteries.

Aim: to study the features of spent battery using by students of KhNMU.

Scientists have proven that various chemical elements of lithium batteries are dangerous if they are released into the environment. When disposed of in a landfill, it discharges, during decomposition, a mass of toxic substances that contribute to soil, water and air pollution (one battery can contaminate 15 to 20 m² of soil). Storage of used batteries at home results in the evaporation of hazardous substances into the air, which has a detrimental effect on human health. The spent batteries contain various poisonous compounds that accumulate in our body and after a while lead to damage to different organs and systems. For example, lead affects the urinary, nervous system, motor; cadmium - can provoke the development of cancer; mercury - affects the kidneys, liver, respiratory, nervous system, organs of vision and hearing, brain, musculoskeletal system; nickel and zinc - injury the skin; alkalis - cause chemical burns of mucous membranes and skin and the like.

Materials and methods: in order to achieve the goal of our work, a survey was conducted in which 100 students of 2 and 3 courses of KhNMU participated. They were asked about particularities of spent batteries using.

Results. 90% of students use batteries in everyday life, including toys (40%) and computer technology (40% for "mice"). When buying batteries, the crucial criterion (50% of respondents) is the cost of the product, 15% of students pay attention to the shelf life and only 5% to the peculiarities of the chemical composition. Particular attention should be paid to disposal methods. So only 10% of users bring batteries to special collection points, 65% of students throw them into household waste, and 15% leave at home. At the same time, only 30% say that used batteries are environmentally hazardous, and 25% are not at all interested in this issue.

Conclusions. The lack of development of a culture of spent battery management requires immediate attention from preventive medicine specialists. Ways to solve the problem should be: constant explanatory work on this issue, the installation of specialized containers, the recommendation to buy batteries without mercury and cadmium, throw batteries into specialized containers or refer to points of reception; it is better to replace them with batteries or domestic appliances that run on alternative electric power sources.