

Edgewood Arsenal Chemical Agent Exposure Studies 1955 - 1975

Background

Edgewood Arsenal has been the center of chemical warfare research and development since 1918. Therefore, it is not surprising that Edgewood Arsenal became the research hub for chemical agent testing on human subjects from 1955 through 1975. The great majority of the use of volunteers in medical (chemical) research occurred at this installation.



Human Experimentation

From 1955 until 1975, the Army Chemical Corps Medical Department conducted classified medical studies involving nerve agents, nerve agent treatments (antidotes), psychochemicals (hallucinogenic drugs), irritants, and blistering agents. The purpose of the studies was to ensure that the U.S. military could adequately protect its Service members from possible wartime exposures to chemical warfare agents. As part of this effort, the Army conducted testing on approximately 7,000 volunteers at Edgewood Arsenal. These studies exposed participants to a number of different chemicals. The study objectives were to determine specific health effects associated with exposure, to assess various pre- and post-exposure medical treatments, and to evaluate the effectiveness of personal protective equipment in preventing exposure.

The program evaluated the effects of exposures to chemical agents and their treatments, how well personnel performed mentally and physically following exposure, how easily some chemicals were absorbed into the body through the skin, and the effectiveness of personal protective equipment. Not all volunteers were exposed to chemical agents. Some only received placebos or performed stress or performance tests without any exposure to chemicals.

Initially, investigators determined exposure levels based on known safe levels in laboratory animals. If required, the volunteers received treatment for any adverse health effects.

Additional testing of chemical agents took place at Edgewood Arsenal outside the auspices of 1955-1975 Medical Research Volunteer Program. This testing lasted from 1951 through 1972, with most of the testing occurring in 1959. Various organizations at Edgewood conducted these tests. Agents tested included nerve agents, irritants and hallucinogens. Not all testing involved exposing volunteers to chemical warfare agents. Some participated in equipment or performance tests that did not involve chemical agents.

Summary

The Institute of Medicine (IOM) published a three-volume series of study between 1982 and 1985 on the long-term health effects of exposure to the chemicals tested. The study did not detect any significant long-term health effects on the Edgewood Arsenal volunteers.