

Cancer and newly discovered radium



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The Uses and Health Related Claims Made for Radium during the Early 1900s

During the early 1900s, newly discovered radium was quite popular. People were awed by its mysterious properties rather than its lethal effects. Many uses were found for its luminescence when mixed with a phosphor. Initially, radium was widespread among everyday necessities such as toothpaste, hair tonic, ointments, elixir etc. Furthermore, radium was also one of the first cancer treatments; it was used as a radiation source.

Limited quantities were implanted in tumors to eliminate cancerous cells; ironically, one of the reasons radium was, for the most part, discontinued, was because it turned out to be a cancer carcinogen itself. Many people drank radium in hopes to cure their stomach cancer. While many uses of radium were halted, it was still widely used in luminescent paints. It sprung in World War II when it was essential for soldiers to be able to see their instruments in the dark.

It was used to paint aircraft dials, gauges, and watch faces. Although radium reached great popularity shortly after its discovery, its lethal potential was eventually recognized as well. The workers who painted dials were subject to severe health effects which included sores, anemia, and bone cancer. This is because radium is treated as calcium by the body, and deposited in the bones, where radioactivity degrades marrow and can mutate bone cells.

Radium can damage and weaken the cells lining the airways, potentially leading to lung cancer over time if inhaled. The early history of radium and its uses illustrates the need for people to understand the connection among science, technology, society, and the environment. It proves the crucial point that to everything there are many effects that relate to several aspects.

For example, radium turned out to be very beneficial to the war because it glowed in the dark when mixed with a phosphor but its other effects were underestimated. It had adverse effects on health that were simply overlooked in the beginning. This example illustrates that there is a direct connection between aspects such as technology, environment, and health etc. it proves that they all link to each other and it is important to fully understand something from every direction before applying it.