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The "Radium Girls"

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The story of the "radium girls" is one of the most notorious but little-known chapters in history of occupational medicine. By careful examination of contemporary evidence we demonstrate the impact of this episode on both our understanding of the effects of radiation exposure in the head and neck and on legal precedent in occupational disease.

A literature search was performed on two bibliographic databases (Medline and Scopus) using the key words "radium AND girls", which revealed 32 articles.

In 1898 Marie and Pierre Curie discovered radium, an element that became extremely popular and was included in numerous products such as toothpastes and facial creams. It was noted that mixture of a zinc compound with radium salts would result in a pale glowing paint. It was thought that military troops during WWI would benefit a great deal from having their watches glow in the dark. U.S Radium Corporation was contracted by the military to produce such watches and hired 4,000 young women to paint the dials. They were advised to lick the tips of the camel hairbrushes to maintain a fine tip. By 1922, many of these women developed a number of medical problems such as rotten jaws, tooth loss and oral infections. In 1927, five disabled employees, the "radium girls", sued U.S Radium seeking \$250,000 in damages.

This was amongst the first cases to connect media, doctors, public and legislative bodies. The hazardous effects of radium were made known and the concept of dose was introduced.