US physician and social reformer

Born in New York City, she graduated in medicine from the University of Michigan. After further training in pathology and bacteriology in Europe, she was made professor of pathology at the Woman's Medical College of North Western University (1897). She combined medical practice with social concerns, particularly the links between environment and disease, and served on state and national advisory committees on occupational disease. In 1919 she became the first woman professor at Harvard, almost 30 years before Harvard accepted women medical students, and retired in 1935. Considered the leading authority on lead poisoning in particular and industrial diseases in general, she published extensively, including a classic textbook, *Industrial Toxicology* (1934).

Summary Article: Hamilton, Alice (1869–1970)
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ALICE HAMILTON (1869–1970) shaped the field of industrial medicine in the United States beginning in the Progressive Era through research on the urban environment. She advanced knowledge of the health effects of chemicals, particularly lead, and successfully campaigned for protections such as workers’ compensation and basic environmental standards. Hamilton staunchly supported labor movements, especially in their crusades for health and safety.

Decades before the birth of modern environmentalism, she criticized industrial practices that harm human health.

Hamilton was born in 1869 and grew up in Fort Wayne, IN, in a close-knit and well-to-do family. She earned her medical degree—when women doctors were rare—from the University of Michigan. Upon joining the faculty at Northwestern University in 1897, she moved into Jane Addams’s Hull House in Chicago. Settlement houses like Hull House served as community centers in poor, urban neighborhoods, where live-in activists from privileged families offered education, political organizing, and self-help opportunities. At Hull House, Hamilton provided health education and studied neighborhood illnesses including typhoid and tuberculosis.

Her investigations into tuberculosis, which she believed was exacerbated by factory conditions, led Hamilton to her career studying the “dangerous trades.” Though the field of industrial medicine was at the time respected and active in Europe, industrial disease received little attention among American physicians. To take an interest in working conditions was to risk being deemed a Socialist or merely sentimental.

Both doctors and industrialists denied the importance of workplace illnesses such as phosphorus and lead poisoning. When they acknowledged disease, they often blamed workers themselves for neglecting proper hygiene or engaging in bad habits at home. Company doctors often seemed to
favor their employers over their patients. Workers, furthermore, tended to hide their illnesses in order to avoid losing their jobs. Hamilton succeeded in reversing many of these circumstances, often cooperating closely with labor unions and activists, and sometimes industry leaders.

Hamilton conducted the first U.S. studies on lead in the workplace for the Illinois Commission on Occupational Diseases and the U.S. Bureau of Labor Statistics. Often shocked by the conditions she found, Hamilton confronted employers to urge immediate changes to the factory environment. While some employers were eager to comply, some resisted her work, and company doctors accused her of exaggeration and slander. The American Association of Labor Legislation used her findings to craft a bill, adopted by several states, setting basic standards for lead in the workplace. In later years Hamilton urged that industries substitute a less toxic substance for lead, particularly in the 1920s, when gasoline companies began adding tetraethyl lead to their product.

In 1919 Hamilton became the first woman faculty member at Harvard Medical School. Harvard’s creation of a program in industrial medicine was a sign of the growing recognition of the field. Hamilton continued her studies for the Bureau of Labor Statistics, examining trades that exposed workers to industrial solvents, mercury, granite dust, radium, and other dangerous substances. Increasingly granted access to the shop floor, Hamilton was able to work with employers and unions to devise remedies and alternatives to the hazards she found. She also systematized the practices of company doctors to ensure future surveillance of the health effects of industrial processes. Hamilton maintained a special concern about women’s exposure to environmental hazards; she considered women more vulnerable and exploitable. This belief led her to take a controversial stance against the Equal Rights Amendment because she thought it would expose more working-class women to exploitation and gender-specific health effects.

Hamilton died at the age of 101 in 1970, the same year that Congress created the Occupational Safety and Health Administration, an agency that brought many of her ideals to fruition.

**SEE ALSO:**
Addams, Jane; Sewer Socialism; Health; Lead; Mercury; Radioactivity; Urbanization; Workplace Hazards.

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