

EXPOSURE AND RISK ASSESSMENT FOR ELONGATE MINERAL PARTICLES

Learning Outcomes

- Characterize human health effects of asbestos
- Recognize sources of asbestos exposure in current settings.
- Describe exposure assessment methods for asbestos and other elongate mineral particles.
- Compare various dose-response models for carcinogenic risk assessment.
- Characterize carcinogenic risk for workers and communities using exposure data and dose-response models.

Abstract

Asbestos and other fibrous minerals remain significant occupational and environmental concerns worldwide. This Professional Development Course (PDC) will present a framework for exposure assessment and risk characterization based on the most advanced methods and recently published models. We will show the applications of quantitative risk assessment for different situations that occupational and environmental health professionals worldwide may encounter. Examples will include potential exposure to erionite fibers during forestry activities; exposure to legacy asbestos in buildings with partially disturbed asbestos-containing materials; exposure of populations near current or former mines or other point sources such as former asbestos cement plants and shipyards; exposure during recreational activities at sites containing naturally occurring asbestos (NOA), and others. The PDC will be presented by the leading scientists in the area of asbestos risk assessment, known for their numerous peer-reviewed publications.

Agenda

Time	Topic
00:00 – 00:05	Welcome
00:05 – 00:45	Asbestos and its health effects: State-of-the science and new findings
00:45 – 01:30	Asbestos exposure assessment for the purposes of risk evaluation
01:30 – 02:00	Break
02:00 – 02:30	Asbestos dose-response assessment: How exposure is related to risk?
02:30 – 03:25	Asbestos risk assessment for workers and communities: Case studies
03:25 – 03:30	Wrap up

Presenters, affiliations, and biography *



Andrey Korchevskiy, PhD, DABT, CIH
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Andrey Korchevskiy is a certified toxicologist (DABT), certified industrial hygienist (CIH), and is the Director of Research and Development at C&IH, Inc (Arvada, CO). He holds a Ph.D. in applied mathematics, and a doctorate in biology. He published numerous peer-reviewed papers on asbestos risk assessment.



Bruce Case, PhD, MD
McGill University, Montreal, Canada

Dr. Case is a pathologist and epidemiologist in Montreal, Canada. Dr. Case published landmark works in the areas of pathology, epidemiology and occupational health, including studies on asbestos and its health effects.



Lucy Darnton,
HSE, Liverpool, UK

Lucy Darnton is a statistician and epidemiologist in HSE's Science Division. She is well known for her studies and publications on asbestos epidemiology.



James Rasmuson, PhD, DABT, CIH
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Dr. Rasmuson holds a PhD in Analytical Chemistry from Iowa State University, is a certified industrial hygienist (CIH), certified toxicologist (DABT), AIHA Fellow (FAIHA), and is the founder and Senior Scientist at C&IH. He published on various aspects of asbestos science.