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Title

The Dose from Environmental Exposure to Radiation (DEER) Report

Abstract

There are many sources of radiation present throughout the environment to which we are exposed on a daily basis. For the most part, exposure to ionizing radiation does us no harm, and is a natural part of life. In the past, Health Canada's Radiation Protection Bureau has published several Environmental Radioactivity in Canada (ERIC) reports to share data on background radiation from their monitoring networks. As this data is now available on Open Data, the nature of the report has changed. Health Canada is currently writing the next version of the ERIC report, renamed the Dose from Environmental Exposure to Radiation (DEER) report, with a focus on communicating the doses that Canadians receive from radiation within the environment. This presentation outlines the goals of the DEER report and summarizes the data, assumptions and methodology for the following exposure pathways: inhalation (primarily radon and thoron), external radiation (terrestrial and cosmic), and ingestion (radionuclides in food and drinking water). Doses to residents of a number of Canadian cities are presented, as well as various scenarios with different characteristics of the exposed person. For the majority of Canadians, radon exposure in homes is the largest contributor to the dose. This publication is expected to give the most-up-to-date estimates of background radiation and dose to the public from environmental exposure to radiation in Canada.