



## Silica exposure and silicosis among Ontario hardrock miners: II. Exposure estimates.

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Abstract:

An epidemiological investigation was carried out to determine the relationship between silicosis in hardrock miners in Ontario and cumulative exposure to silica (free crystalline silica--alpha quartz) dust. This second report describes a side-by-side air-sampling program used to derive a konimeter/gravimetric silica conversion curve. A total of 2,360 filter samples and 90,000 konimeter samples were taken over 2 years in two mines representing the ore types gold and uranium, both in existing conditions as well as in an experimental stope in which dry drilling was used to simulate the high dust conditions of the past. The method of calculating cumulative respirable silica exposure indices for each miner is reported.

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