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## Reports from University of Ottawa Add New Data to Findings in Chemicals and Chemistry (Health Risk Assessment of Inorganic Arsenic Exposure Through Fish Consumption In Yellowknife, Northwest Territories, Canada).

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2021 MAY 1 (NewsRx) -- By a News Reporter-Staff News Editor at Obesity, Fitness & Wellness Week -- Current study results on Chemicals and Chemistry have been published. According to news reporting out of Ottawa, Canada, by NewsRx editors, research stated, "Yellowknife, Northwest Territories, Canada, is located near two closed gold mines. Elevated arsenic concentrations reported in fish are a public health concern."

Financial supporters for this research include Department of Environmental and Natural Resources, Government of Northwest Territories, Natural Sciences and Engineering Research Council of Canada Strategic Partnerships of Projects, Crown-Indigenous Relations and Northern Affairs Canada.

Our news journalists obtained a quote from the research from the University of Ottawa, "We collected 180 samples of three species of commonly consumed fish in 2013-2018 and analyzed arsenic species, including inorganic arsenic (As(III) and As(V)), monomethylarsonate (MMA), dimethylarsinic acid (DMA), and arsenobetaine. The average total arsenic concentration in fish muscle tissue was 2.30 +/- 1.72 mu g/g dry weight, and that in burbot liver tissue was 3.16 +/- 2.49 mu g/g dry weight. Nontoxic arsenobetaine was the main arsenic species in fish muscle (mean = 58.6 +/- 34.5%), whereas DMA was the predominant species in burbot liver (mean = 76.6 +/- 21.6%). On average, inorganic arsenic species accounted for less than 20% of the arsenic detected in fish. Data on the consumption of locally caught fish were collected from 1611 residents in Yellowknife in 2017 and 2018, including 1417 general residents and 194 members of the Yellowknives Dene First Nation. We evaluated the health risks from inorganic arsenic exposure using Monte Carlo simulations."

According to the news editors, the research concluded: "Our results indicated that there were negligible non-cancer health risks, and the cancer risk was below the baseline cancer risk level of arsenic exposure among the Canadian general population."

This research has been peer-reviewed.

For more information on this research see: Health Risk Assessment of Inorganic Arsenic Exposure Through Fish Consumption In Yellowknife, Northwest Territories, Canada. Human and Ecological Risk Assessment An International Journal, 2021;27(4):1072-1093. Human and Ecological Risk Assessment An International Journal can be contacted at: Taylor & Francis Inc, 530 Walnut Street, Ste 850, Philadelphia, PA 19106, USA.

Our news journalists report that additional information may be obtained by contacting Hing Man Chan, University of Ottawa, Dept. of Biology, 30 Marie Curie Private, Ottawa, On K1N 6N5, Canada. Additional authors for this research include Claudia Tanamal, Jules M. Blais and Emmanuel Yumvihoze.

Keywords for this news article include: Ottawa, Canada, North and Central America, Chemicals and Chemistry, Arsenic, Cancer, Cancer Risk, Oncology, Risk and Prevention, University of Ottawa.

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