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Weighing the methylmercury risk: What researchers say about country food



After the Muskrat Falls reservoir is flooded, people who eat country food will have to make a choice

[Bailey White](#) · CBC News · Posted: Jul 26, 2019 7:00 AM NT | Last Updated: an hour ago



People in the small community of Rigolet are concerned about the increases in methylmercury in Lake Melville. (Alyson Samson/CBC)

When the Muskrat Falls reservoir is flooded next month, people who harvest food from Lake Melville will have to make a decision.

Should they keep the same eating habits they've always had, and risk consuming higher levels of methylmercury? Or, should they cut down on nutrient-rich country food like salmon and opt for store-bought items that are more expensive and not always as healthy?

It's a question that has stirred a desperate anxiety among Labrador Inuit and another Labradorians whose way of life depends on traditional hunting and fishing.

The issue came to a head in 2016, when Nunatsiavut released research that suggested flooding the Muskrat Falls reservoir could make such foods unsafe to eat.

But a growing body of research — including data gathered during initial flooding — suggests that, while methylmercury levels will rise, the increase will not force most people to change their diets.

"People reducing their consumption of local foods is probably a bigger risk than methylmercury," said Ryan Calder, post-doctoral associate in Duke University's department of civil and environmental engineering.

Calder is one of three authors of a study, published in the journal *Environmental Research*, that examines the trade-offs between a diet higher in methylmercury and one lower in traditional food.

"What happens when you flood a hydroelectric reservoir [is] fish and other seafood methylmercury levels increase," Calder said.

There are several variables that could affect the level of methylmercury, and the researchers considered a broad range, Calder said. On average, they estimate methylmercury consumption will double.





Ryan Calder is a post-doctoral associate in the department of civil and environmental engineering at Duke University. (Submitted)

"That sounds like a lot, and for some people it might be," he said. But for most, doubling methylmercury intake would still be within the limits Health Canada considers safe.

Calder stressed that any increase in methylmercury translates into increased risk, but compared with a diet that includes less country food, it's the lesser of two evils for most people.

"There's a small population of people who already have very high methylmercury exposures at present day who eat a lot of local foods," he said. "For those people, there might be some appreciable risks."

To cap or not to cap

Calder's work has been cited by the Muskrat Falls independent expert advisory committee, and by provincial government officials, who this week announced plans to disburse money set aside for methylmercury mitigation.

Nalcor, the Crown corporation building the Muskrat Falls hydroelectric dam, budgeted \$30 million to cap wetlands in the reservoir area, which would reduce the release of methylmercury.

The province and Nalcor missed a deadline to complete the work, so instead [offered \\$10 million each to three Labrador Indigenous groups](#).



Premier Dwight Ball announced a deal to share money originally allocated for methylmercury mitigation. (Patrick Butler/CBC)

Calder said the measure would reduce methylmercury levels, but it wouldn't eliminate the risk entirely.

"There's a question about how much are you reducing methylmercury risk versus how much is it costing? And then what else could you use that money for?" he said.

"Would you be better off spending that money on some other strategy to make sure Indigenous people have access to healthy foods? Or some other environmental mitigation measure?"

Plans for Nalcor money

Innu Nation and NunatuKavut Community Council have both signed agreements with Nalcor to spend their millions on health and social programs. Nunatsiavut was also offered a similar agreement but has not signed.

In a statement Wednesday, a Nalcor spokesperson said the corporation did not direct the Indigenous groups on how to spend the money. It's not clear how that language ended up in the written agreement.

- [Nalcor's \\$10M deal with NunatuKavut hammered out in a page and a half](#)
- [Methylmercury deal struck with 2 of 3 Labrador Indigenous groups](#)

Gregory Rich, grand chief of the Innu Nation, said it will be up to the board of directors how to divvy up the money between the Innu communities of Natuashish and Sheshatshiu, and up to the band councils how to spend it.

Personally, the chief said, he'd like to see it invested in the education system and other programs for children.

Rich said Innu Nation remains committed to a plan to monitor methylmercury levels and to make decisions based in science.

"We'll be talking in the coming days with the scientists and others involved," Rich said. "We'll be monitoring."

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