

High lead levels found in some spices purchased abroad

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Investigations of lead poisoning cases in New York City (NYC) have found high levels of lead in certain spices purchased abroad, reports a study in the *Journal of Public Health Management and Practice*, part of a special supplement devoted to Lead Poisoning Prevention.

The study by Paromita Hore, Ph.D., MPH, and colleagues at the NYC Department of Health and Mental Hygiene highlights the potential risks of lead exposure from "non-traditional" sources, even as US population blood levels continue to decline. "While lead-based paint and occupational lead hazards remain the primary sources of lead exposures among New York City's lead-poisoned children and men, respectively, these are not the only possible lead sources," the researchers write.

Spices Are a Common Source of Lead Exposure for Some New Yorkers

Dr. Hore and colleagues share their experience with investigating spices as a potential source of lead exposure. Between 2008 and 2017, the NYC Health Department tested over 3,000 samples of consumer products during investigations of lead poisoning cases and surveys of local stores. Spices were the most frequently tested product: nearly 1,500 samples from 41 countries were tested.

More than half of the <u>spice</u> samples had detectable lead concentrations, and more than 30 percent had lead concentrations greater than 2 parts



per million (ppm) - a permissible limit for lead in certain food additives used as a guidance value by NYC Health Department.

Spices purchased abroad had much higher average lead content than spices bought in the US. For example, turmeric and Georgian kharcho suneli purchased in NYC had average lead concentrations below 2 ppm, but when the same spices were purchased abroad, the average concentrations exceeded 50 ppm. "The highest concentrations of lead were found in spices purchased in the countries Georgia, Bangladesh, Pakistan, Nepal, and Morocco," Dr. Hore and co-authors write.

In NYC, children and pregnant women of Georgian and South Asian ancestry are disproportionately represented among the lead-exposed population. Although not the only source of lead exposure, spices are an important factor to consider in these high-risk groups. "Public health professionals and medical providers should also be aware of spices as a potential risk factor for lead <u>exposure</u> and screen at-risk populations," according to the authors.

Most of the contaminated spices purchased abroad were in unmarked containers without brand name information. The highest lead levels were measured in the Georgian spice kviteli kvavili, or "yellow flower." Examples of other contaminated spices purchased abroad included turmeric, hot pepper, chili powder, and paprika.

The study has important implications for public <u>health</u> programs, policy, and international food safety regulations, Dr. Hore and colleagues believe. They note that adulteration of spices, intentional or inadvertent, may occur anywhere along the supply chain. The authors conclude, "Overall, a solely localized or national approach to address spice contamination will not be adequate, as the problem is global."

More information: Paromita Hore et al, A Spoonful of Lead, Journal



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