

Lead contamination in Philadelphia's Chinatown discovered

February 28 2011

Recently, a research team from the Department of Emergency Medicine at Jefferson Medical College of Thomas Jefferson University discovered an alarming amount of lead contamination in ceramic cooking and eating utensils sold in Philadelphia's Chinatown. The team, led by Gerald O'Malley, D.O., director of Clinical Research; and Thomas Gilmore, M.D., resident, purchased and tested a sampling of Chinese ceramics.

Using a LeadCheck, one area on each item was rubbed with a lead-detecting solution. In almost 30 percent of the items, the area turned pink or red, with red indicating a higher concentration of [lead](#). The results were so alarming, the [Food and Drug Administration](#) (FDA) has decided to instigate further studies of ceramics items imported from Chinese and Mexican cookware.

A Walk and a Hunch

This whole investigation started as a hunch. Dr. O'Malley began working in the emergency department at Jefferson this past July so he decided to familiarize himself with the neighborhood. On an excursion to Philadelphia's Chinatown, he noticed many shops selling ceramic kitchenware. Knowing that both Mexico and China are major sources of imports containing lead, he wondered if those Chinese ceramics also contained lead. Prior to joining Jefferson, Dr. O'Malley completed a fellowship in medical toxicology at the University of Colorado's Rocky Mountain Poison and Drug Center. In Denver he had been involved with

studying the [lead poisoning](#) problem that is pervasive among the Mexican population there.

"Lead poisoning is especially harmful to young children because it affects their developing [central nervous system](#) and can cause serious problems like learning difficulties, developmental delays, [brain damage](#) or even death," said Dr. O'Malley. "Perhaps not as devastating for adults, lead poisoning can still lead to significant health problems like kidney damage and anemia."

Alarming Finding

Dr. O'Malley discussed his concern with Dr. Gilmore, and they formulated a plan to purchase and test a sampling of the Chinese ceramics. Together, with a team of interested medical students, the physicians systematically tested the items for lead content and discovered that 25.3 percent of the items tested positive.

"This test only confirms that there is some level of lead," said Dr. Gilmore. "It's possible that the items tested are within acceptable limits, so we can't say they are illegal at this point. However, this makes for a reasonable inference that many are above the limit, especially those where the area became red."

FDA Interested

With testing completed, Drs. O'Malley and Gilmore contacted the Health Department and the FDA. The officials were so alarmed at the significant amount of affected items, that the agency is initiating further studies of imported Chinese and Mexican cookware.

One of Dr. O'Malley's former colleagues in Denver, who is the leader of

the Center for Disease Control's (CDC) Advisory Committee on Childhood Lead Poisoning Prevention, invited him to present Jefferson's findings at a CDC committee meeting in Atlanta, Georgia. Dr. O'Malley was unable to attend due to prior commitments, so Dr. Gilmore presented in his absence. After the presentation, the committee members remarked that the potential hazards associated with lead paint and glazes on Chinese ceramics sold in Philadelphia were of great interest to them. In addition, they believe the public health community has not appreciated the potential significance of this particular source of lead exposure.

"The next step in the study is for our team to identify how much of the lead is getting into the food and liquids contained in the contaminated articles through a leaching test," said Dr. O'Malley. "The results of that will quantitatively identify whether or not the levels exceed governmental allowable limits. If it's as high as we suspect, we'll work on eliminating this public health hazard and treating people affected by it. My concern is that this is an unrecognized source of lead poisoning in a large population of patients that aren't normally tested for lead."

More information: To read a blog entry about this story, log onto The Daily Dose @ Jefferson: www.jeffersonhospital.org/The-...-town-and-beyond.aspx

Provided by Thomas Jefferson University

Citation: Lead contamination in Philadelphia's Chinatown discovered (2011, February 28) retrieved 19 July 2024 from <https://phys.org/news/2011-02-contamination-philadelphia-chinatown.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.