

Stoned by the Philosopher: The Tragic Case of the Mercurious Neighbor

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Background: In alchemy, the process of chrysopoeia is the act of transmuting a “base” metal (e.g. lead or mercury) into a “noble” metal (e.g. gold or silver). We report one attempt at mercury transmutation by an amateur alchemist that resulted in death and EPA-directed clean up.

Hypothesis: Attempted creation of gold from mercury can be lethal and results in severe collateral damage.

Methods: This is a single case report of a man who attempted to create gold by boiling mercury with calcium hydroxide. His parents found him dead in his condominium and tried to clean up the scene themselves. His official autopsy report deemed his cause of death as mercury toxicity and the manner of death accidental.

Results: 2/26 units in his building were condemned; 3 additional units had elevated mercury levels. The EPA-directed remediation found extremely elevated ambient mercury concentrations throughout the decedent's residence, personal items, clothes, and car. Crews deconstructed the condominium unit down to the studs and base floors for adequate decontamination.

Significantly elevated mercury concentrations were found in the adjacent unit that was also condemned and deconstructed to the studs. Officials theorized that the lack of a firewall and leakage between the shared heating pipes and holes around electrical outlets contributed to mercury diffusion. Fortunately, that dwelling was unoccupied. A sink two apartments away used during initial clean up required removal as hazardous waste. The dumpster used to throw away the decedent's belongings was contaminated and was sealed and transported as hazardous materials. His father's washing machine also required hazardous disposal.

Discussion: Elemental mercury inhalation can lead to severe toxicity and death. The potential for collateral contamination may be underappreciated especially since mercury can track into unaffected areas through contaminated clothing and shoes. This should be considered when caring for poisoned patients. Prompt involvement of public health officials is essential to evaluate the scene and encourage others to seek medical evaluation.

Conclusion: The creation of elemental mercury in a condominium or apartment can permeate through walls potentially causing toxicity in adjoining residences. Attempts at cleaning by laypersons do more harm than good.