



Our Mission:

The Saint Louis University School of Public Health is dedicated to the discovery, translation, and dissemination of public health knowledge to improve the health and well being of all.



Removal of Lead Contaminated Dusts from Hard Surfaces

This project is funded by US Department of Housing and Urban Development (HUD) to evaluate fine lead dust removal efficiency of various cleaning agents from hard surfaces. The cleaning agents are lead specific detergent, trisodium phosphate (TSP), anionic detergent, non-ionic detergent.

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Discovery

What is the health problem?

- ❖ Lead poisoning has been known for decades to affect the neurological and developmental well being of children
- ❖ HUD in 2002 found that about 38 million housing units in the U.S. contain some lead paint. Also, approximately 24 million housing units in the U.S. were found to have significant levels of lead from dust, soil, or paint.
- ❖ On the basis of the best available evidence, HUD recommended the use of lead-specific cleaning agents or trisodium phosphate.
- ❖ Trisodium phosphate “TSP” was the mostly commonly used chemical in lead remediation projects around the nation, and it is bad for the environment since algal blooms occur after they wash into streams and rivers.

Translation

What did we learn and how do we take what we know to benefit the local health department, homeowner, or lead abatement company/contractor?

- ❖ We tested how well various detergents removed lead dust from three different building materials: linoleum, wallpaper, and pine veneer. We now know there are no differences among detergents for lead removal and that common house cleaning detergents can be used instead of TSP or expensive, lead-specific agents to remove lead dust.
- ❖ Recommendations can be made to local health departments, homeowners, and abatement contractors that general house cleaning detergents can be substituted for more harmful or more expensive detergents in order to remove lead dust.

Dissemination

How did we disseminate Removal of Lead Contaminated Dusts from Hard Surfaces project?

- ❖ The findings have been published in the scientific literature (Environmental Science & Technology, 40(2): 590-594).
- ❖ Interviews were held with national media about the findings including the American Chemical Society Press www.pubs.acs.org/subscribe/journals/esthag-w/2005/dec/business/pt_lead.html
- ❖ The results have been posted on scientific websites on continents around the world.

Change

What change occurred because of the dissemination?

- ❖ New HUD guidelines to be released soon will no longer recommend either phosphate detergent or lead-specific cleaning agents. The environment will be improved and less expensive detergents will be used in lead clean-up.