

# A simple model predicts household lead exposure risk

March 1 2022, by Alexandra K. Scammell

---



Lead remnants can be found in household dust, posing a risk to people, especially children, if ingested. New research has found a simple model that can predict whether a home likely has a low or high risk of lead concentrations.

Credit: Mariakray, Pixabay

Although it is a naturally occurring metal, lead can be toxic to humans, especially children. Since 1978, lead has been phased out of many products in the United States (including paint and gasoline), but its

remnants can still be found in soil, paint in older homes, and household dust.

In a new study, Dietrich et al. turned to a crowdsourced science data set to help predict the possibility of lead [dust](#) contamination in a household's indoor environment. The scientists used data from [DustSafe](#), an initiative in which participants completed an [online survey](#) about their home's condition and sent samples of household dust to a lab. Dietrich and colleagues used hundreds of samples throughout the United States in this data set, along with various predictor variables—including the age of the house, the presence of paint peeling on the interior and/or exterior of the home, and whether there was a recent home renovation—to inform a simple logistic regression model. The researchers then tested to see whether the model could predict whether a house had low (

Citation: A simple model predicts household lead exposure risk (2022, March 1) retrieved 26 April 2024 from <https://phys.org/news/2022-03-simple-household-exposure.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.