

Lead in the blood increases women's mortality

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Lead concentrations in the blood are associated with an increased risk of death from coronary heart diseases (CHD). A study of 533 American women, published in BioMed Central's open access journal *Environmental Health*, has shown that those with blood lead concentrations above 8 μ g/dL were three times more likely to die of CHD.

Naila Khalil worked with a team of researchers from the University of Pittsburgh and the University of Maryland to study the effects of lead on the mortality of a group of 65-87 year old [women](#) who had joined an earlier study between 1986 and 1988. These women have been followed ever since and their causes of death recorded. Khalil said, "Despite population-wide declines in blood lead concentrations during the past 30 years, environmental lead exposure continues to be a public [health](#) concern. Lead is a toxic metal, and our results add to the existing evidence of adverse affects of lead on health as seen in an older cohort who experienced greater historic environmental lead exposure".

The average population blood lead concentration in the most recent US National Health and Nutrition Examination Survey (2001-2002) had declined to 1.45 μ g/dL. The women studied in Dr. Khalil's research, however, were alive while lead was still used in paints, water systems and as a gasoline additive. They had an average blood concentration of 5.3 μ g/dL, with some women showing levels as high as 21 μ g/dL. According to Khalil, "Women with a blood lead concentration above 8 μ g/dL had a 73% increased risk of dying. In particular, blood lead was

associated with almost three-fold risk in CHD mortality".

This study shows that environmental toxicants, such as lead, may account for some of the burden of cardiovascular disease, which is the leading cause of mortality worldwide. It kills nearly half a million women in the United States every year, more than the next five causes of death combined and nearly twice as many as all forms of cancer, including breast cancer. The authors conclude, "While the damage may already have been done for some older people, it is important that we recognize the harm that environmental exposure to lead can cause. We must remain vigilant and ensure that lead pollution is minimized for the sake of future generations' health".

Source: BioMed Central ([news](#) : [web](#))

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