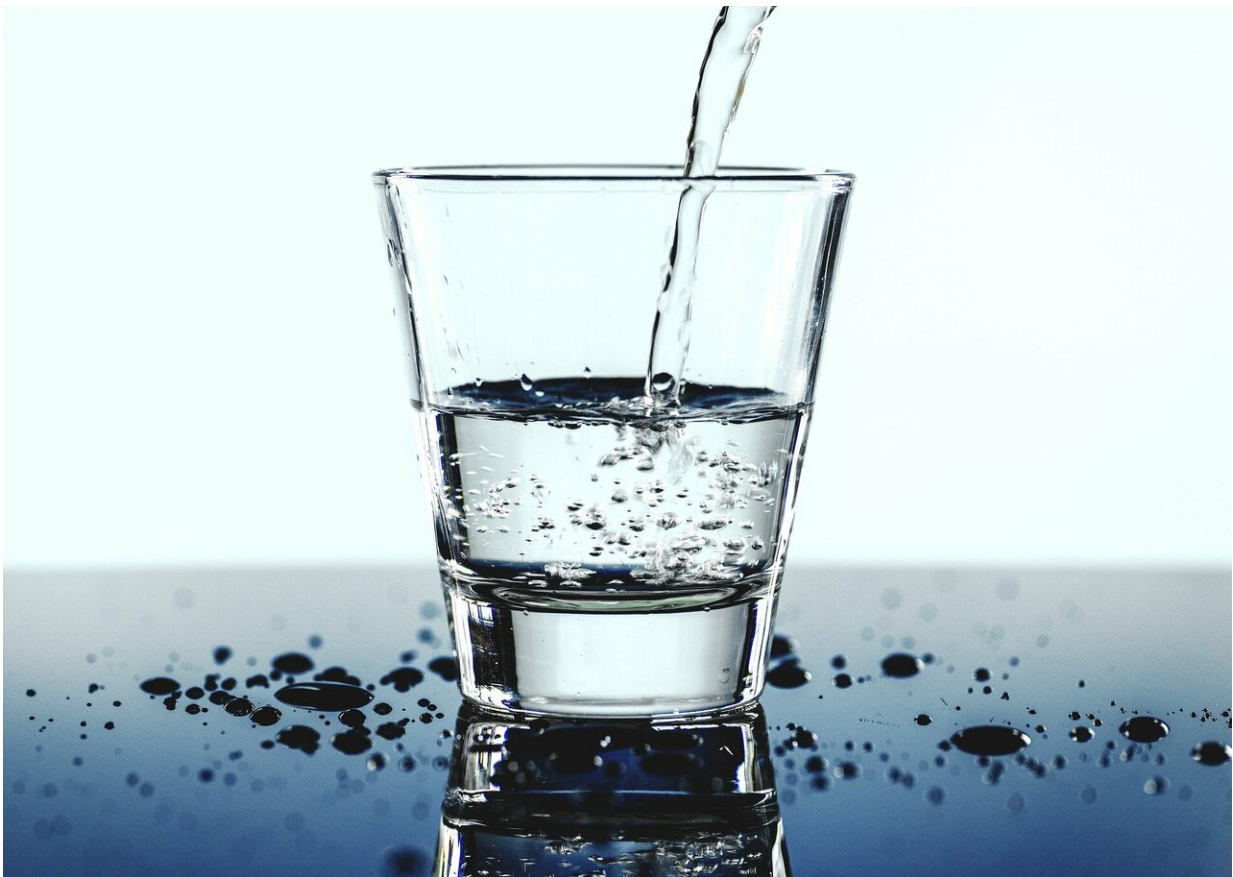


Possible link found between exposure to household chemical and heart disease and cancer

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Dichlorophenols (DCPs) are chemicals known to disrupt hormone

systems. DCPs can be found in a variety of consumer and industrial products, such as deodorizers, antibacterial additives and even chlorinated drinking water.

A new University of Minnesota School of Public Health study, recently published in the journal *Occupational and Environmental Medicine*, investigated two types of DCPs (2,5-DCP and 2,4-DCP) and found that exposure to them suggests a possible link with a higher prevalence of heart disease and cancer.

Lead author and Ph.D. candidate Mary Rooney found the link between DCPs and the diseases by analyzing data from the National Health and Nutrition Examination Survey (NHANES), a program of the National Center for Health Statistics at the U.S. Centers for Disease Control and Prevention. The survey of 3,617 participants included information on their self-reported history of illness, as well as urine tests, that estimated their exposure to DCPs.

The study found:

- higher urinary 2,5-DCP concentrations were associated with greater prevalence of heart disease and greater prevalence of all cancers combined;
- participants with higher concentrations of 2,5-DCP and 2,4-DCP tended to be obese, have a lower income-to-poverty ratio and were less likely to be non-Hispanic white;
- no statistically significant associations were found between 2,5-DCP and lung diseases (e.g., asthma, [chronic bronchitis](#) and emphysema), thyroid problems or liver conditions.

Previous NHANES research showed that 81 percent of people tested positive for the presence of 2,4-DCP and 2,5-DCP in urine tests.

"Given that 81 percent of Americans show evidence of exposure to these chemicals, we need to understand more about how they may influence health," said Rooney.

Rooney recommends that environmental health researchers continue investigation of the effects of DCP exposure to determine if and how it actually causes such diseases in people. She said the findings will hopefully increase awareness of DCPs and other chemicals that may potentially make people sick.

More information: Mary R Rooney et al. Urinary 2,5-dichlorophenol and 2,4-dichlorophenol concentrations and prevalent disease among adults in the National Health and Nutrition Examination Survey (NHANES), *Occupational and Environmental Medicine* (2018). [DOI: 10.1136/oemed-2018-105278](https://doi.org/10.1136/oemed-2018-105278)

Provided by University of Minnesota

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