

New study finds little-known toxic crop chemical in four out of five people tested

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A new Environmental Working Group study has found chlormequat, a little-known pesticide, in four out of five people tested. Because the chemical is linked to reproductive and developmental problems in

animal studies, the findings suggest the potential for similar harm to humans.

EWG's research, published February 15 in the *Journal of Exposure Science and Environmental Epidemiology*, tested the urine of 96 people for the presence of chlormequat, finding it in 77 of them.

"EWG's new study on chlormequat is the first of its kind in the U.S.," said EWG Toxicologist Alexis Temkin, Ph.D, lead author of the study. "The ubiquity of this little-studied pesticide in people raises alarm bells about how it could potentially cause harm without anyone even knowing they've consumed it."

Some animal studies show that chlormequat can damage the [reproductive system](#) and disrupt fetal growth, changing development of the head and bones and altering key metabolic processes. This research raises questions about whether chlormequat could also harm humans.

For its study, EWG sourced [urine samples](#) collected between 2017 and 2023 from 96 people in the U.S. and tested them for chlormequat at a specialized lab in the United Kingdom.

The tests found chlormequat in the urine of more people and at higher concentrations in samples collected in 2023 than in earlier years, suggesting consumer exposure to chlormequat could be on the rise.

Environmental Protection Agency regulations allow the chemical to be used on [ornamental plants](#) only—not [food crops](#)—grown in the U.S.

But since 2018, the EPA has permitted chlormequat on imported oats and other foods, increasing the allowed amount in 2020. Both regulatory changes took place under the Trump administration. Many oats and oat products consumed in the U.S. come from Canada.

In April 2023, in response to an application submitted by chlormequat manufacturer Taminco in 2019, the Biden EPA proposed allowing the first-ever use of chlormequat on barley, oats, triticale and wheat grown in the U.S. EWG opposes the plan. The proposed rule has not yet been finalized.

"The [federal government](#) has a vital role in ensuring that pesticides are adequately monitored, studied and regulated," Temkin said. "Yet the EPA continues to abdicate its responsibility to protect children from the potential health harms of toxic chemicals like chlormequat in food."

EWG urges the Agriculture Department and the Food and Drug Administration to test foods for chlormequat and requests that the Centers for Disease Control and Prevention add chlormequat to its biomonitoring program. The organization also calls for more research on the effects of chlormequat on human health.

EWG conducted its own tests of oat-based foods in 2022 and 2023, finding chlormequat in numerous non-organic oat-based products. Organic oat products had little to no detections of the chemical.

More information: A pilot study of chlormequat in food and urine from adults in the United States from 2017 to 2023, *Journal of Exposure Science & Environmental Epidemiology* (2024). [DOI: 10.1038/s41370-024-00643-4](#)

Provided by Environmental Working Group

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