

# How is pharmaceutical pollution affecting the world's rivers?

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During their production, use, and disposal, pharmaceutical ingredients in prescription and over-the-counter drugs are released into the environment, especially in surface waters. Results from a recent study published in *Environmental Toxicology and Chemistry* indicate that pharmaceutical pollution is a global problem that is likely negatively

affecting the health of the world's rivers.

Approximately 43.5% of the 1,052 locations that were assessed in the study across 104 countries had concerning concentrations of pharmaceutical ingredients. Twenty-three pharmaceutical ingredients occurred at concentrations exceeding 'safe' concentrations, including substances from the antidepressant, antimicrobial, antihistamine, benzodiazepine, painkiller, and other classes.

"This is the first truly global assessment of the impacts of single pharmaceuticals and mixtures of pharmaceuticals in riverine systems," said corresponding author Alejandra Bouzas-Monroy, a Ph.D. student at the University of York. "Our findings show that a very high proportion of [rivers](#) around the world are at threat from pharmaceutical pollution. We should therefore be doing much more to reduce the emissions of these substances into the environment."

**More information:** Assessment of the Potential Ecotoxicological Effects of Pharmaceuticals in the World's Rivers, *Environmental Toxicology and Chemistry* (2022). [DOI: 10.1002/etc.5355](https://doi.org/10.1002/etc.5355)

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