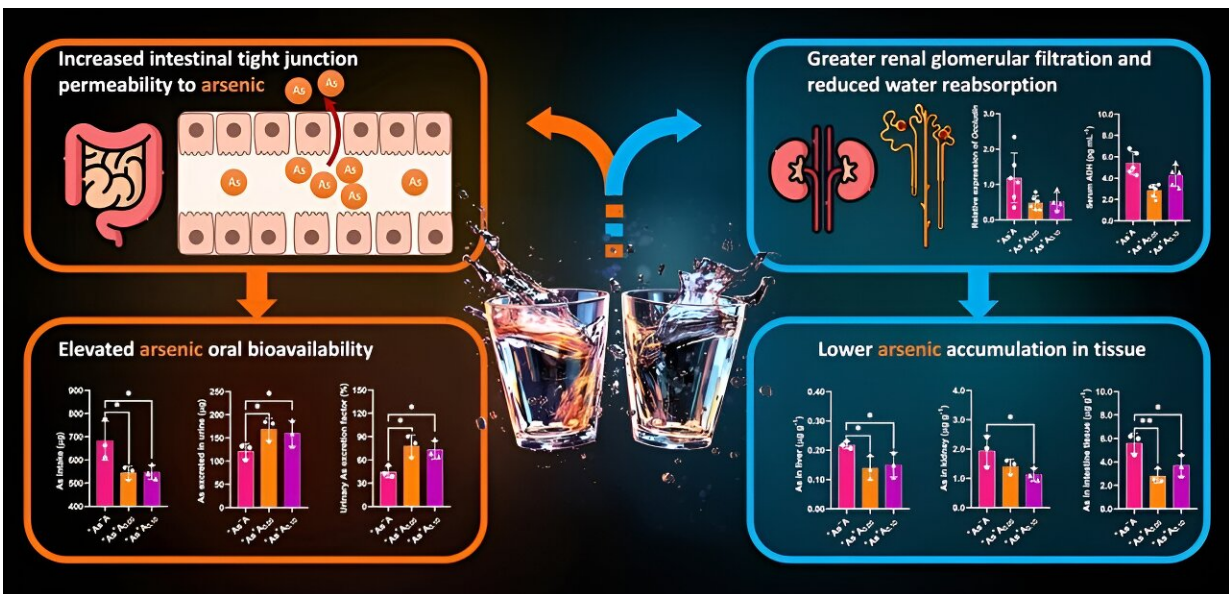


Alcohol may help flush out arsenic from the body, study finds

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Graphical abstract. Credit: Eco-Environment & Health

A [study](#) published in *Eco-Environment & Health* sheds light on the complex impact of alcohol consumption on arsenic bioavailability and how it accumulates in tissues. It investigates how alcohol changes the gut microbiota and intestinal barriers, influencing how arsenic is absorbed and distributed throughout the body.

In this study, researchers investigated how alcohol affects the body's processing of arsenic, a widespread environmental poison. Mice were

given arsenate-enriched diets and daily amounts of Chinese liquor, simulating human alcohol intake.

Interestingly, while alcohol boosted arsenic absorption in the gut, it surprisingly lessened its buildup in crucial organs. This unexpected effect stems from alcohol's damage to intestinal barriers and changes in gut microflora, which increases arsenic's entry into the bloodstream.

Crucially, alcohol also increased kidney filtration and lowered antidiuretic hormone levels, leading to more arsenic being flushed out via urine. Essentially, alcohol accelerates arsenic's exit from the body, reducing its harmful potential. This study reveals the intricate interaction between common substances and their unforeseen health effects, providing a new angle on arsenic toxicity and alcohol's influence.

Dr. Hongbo Li, the corresponding author, emphasizes the significance of understanding alcohol's role in arsenic bioavailability. "Given the widespread exposure to both substances, it's vital to comprehend how they interact within the body to better predict and mitigate [health risks](#)," he states.

The results indicate that although [alcohol consumption](#) might raise the amount of arsenic absorbed, it also enhances its removal from the body, possibly decreasing its buildup in tissues and lessening certain toxicity risks. This information is especially pertinent for groups exposed to both [arsenic](#) and alcohol, offering a detailed view of the risk factors and their interactions.

More information: Hongyu Wang et al, Alcohol consumption promotes arsenic absorption but reduces tissue arsenic accumulation in mice, *Eco-Environment & Health* (2023). [DOI: 10.1016/j.eehl.2023.06.003](#)

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