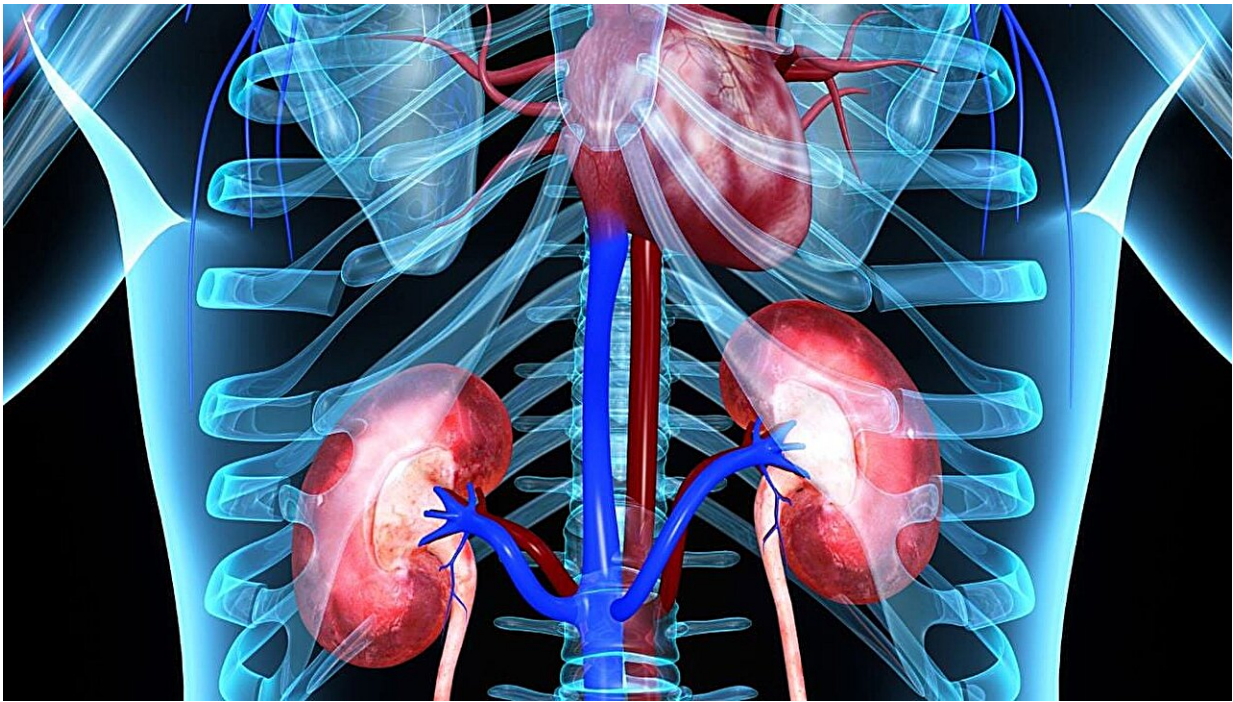


Study shows amino acids reduce acute kidney injury after cardiac surgery

June 18 2024, by Lori Solomon



Among adult patients undergoing cardiac surgery, infusion of amino acids reduces the occurrence of acute kidney injury (AKI), according to a study [published](#) online June 12 in the *New England Journal of Medicine* to coincide with the annual [Critical Care Reviews Meeting](#), held from June 12 to 14 in Belfast, Northern Ireland.

Giovanni Landoni, M.D., from the IRCCS San Raffaele Scientific Institute in Milan, and colleagues examined the efficacy of amino acids in reducing the occurrence of AKI after cardiac surgery. The analysis included 3,511 [adult patients](#) who were scheduled to undergo [cardiac surgery](#) with cardiopulmonary bypass who were randomly assigned to receive an [intravenous infusion](#) of either a balanced mixture of amino acids (2 g per kilogram of ideal body weight per day) or placebo (Ringer's solution) for up to three days.

The researchers found that AKI occurred in 26.9% of patients in the amino acid group and in 31.7% of the placebo group (relative risk, 0.85). Stage 3 AKI occurred in 1.6 and 3.0% of patients, respectively (relative risk, 0.56). Kidney replacement therapy was needed in 1.4% of patients in the amino acid group versus 1.9% in the placebo group. Secondary outcomes and reports of adverse events were found to be similar between the groups.

"These findings appear to be clinically and epidemiologically important because they may apply to more than two million patients who undergo heart surgery worldwide every year and because AKI is an [independent risk factor](#) for subsequent chronic kidney disease," the authors write.

More information: Giovanni Landoni et al, A Randomized Trial of Intravenous Amino Acids for Kidney Protection, *New England Journal of Medicine* (2024). [DOI: 10.1056/NEJMoa2403769](https://doi.org/10.1056/NEJMoa2403769)

© 2024 [HealthDay](#). All rights reserved.

Citation: Study shows amino acids reduce acute kidney injury after cardiac surgery (2024, June 18) retrieved 11 July 2024 from

<https://medicalxpress.com/news/2024-06-amino-acids-acute-kidney-injury.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.