

# HDL and kidney injury after surgery

January 18 2018, by Jenelle Grewell

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Higher concentrations of high-density lipoproteins—HDL, the "good" cholesterol—may be protective against acute kidney injury (AKI) after cardiac surgery, Vanderbilt researchers have discovered. AKI affects up to 30 percent of patients after cardiac surgery.

Loren Smith, MD, Ph.D., and colleagues evaluated 391 patients participating in a [randomized clinical trial](#) of a statin drug to reduce AKI after [cardiac surgery](#). They found that a higher preoperative HDL concentration was associated with decreased postoperative creatinine change (a measure of kidney function). The association was strongest in patients who were long-term statin users and was further enhanced in patients who had perioperative statin treatment.

The findings, reported in the *Journal of the American Heart Association*, identify HDL as a potentially modifiable risk factor for postoperative AKI. The researchers stress, however, that perioperative statins have not prevented AKI in three randomized clinical trials and that other agents which improve HDL function are needed.

**More information:** Loren E. Smith et al. High-Density Lipoprotein Cholesterol Concentration and Acute Kidney Injury After Cardiac Surgery, *Journal of the American Heart Association* (2017). [DOI: 10.1161/JAHA.117.006975](https://doi.org/10.1161/JAHA.117.006975)

Provided by Vanderbilt University

Citation: HDL and kidney injury after surgery (2018, January 18) retrieved 20 November 2023 from <https://medicalxpress.com/news/2018-01-hdl-kidney-injury-surgery.html>

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