

Pre-operative statins can help patients who undergo heart surgery

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Pre-operative statin therapy can reduce the chance of post-operative atrial fibrillation and shortens the stay on the intensive care unit (ICU) and in the hospital in patients who undergo cardiac surgery, according to a new systematic review by Cochrane researchers. However, statin pre-treatment had no influence on the risk of dying, stroke, heart attack or kidney failure around the time of the operation.

Statins are known to help lower the levels of lipids in people's blood. This in turn reduces the risk of patients with [coronary heart disease](#) dying. Before this study, it was unclear whether patients who are about to undergo heart surgery would also benefit if they took statins before the operation.

A team of researchers based at the University of Cologne in Germany, analysed data found in 11 randomized controlled studies. These studies included a total of 984 participants who were undergoing different forms of heart surgery.

They found that giving statins before surgery reduced the incidence of post-operative [atrial fibrillation](#), suggesting a beneficial effect for patients with a statin treatment when compared to patients without a statin therapy. In addition, they discovered that patients who had statins before the operation tended to leave the ICU about three-and-a half hours earlier, and left hospital about half a day earlier. There was, however, no significant reduction in the proportion of people who had a heart attack or [kidney failure](#) subsequently. Furthermore, statins had no

effect on the number of people who died or had a stroke soon after the operation.

The researchers point to one limitation of their findings. "Since the data we analysed had come mainly from patients having [coronary artery bypass](#) operations, the results cannot be extrapolated to patients undergoing other cardiac procedures such as heart valve or aortic surgery," says lead researcher Oliver J. Liakopoulos, who works in the Department of Cardiothoracic Surgery at the University of Cologne's Heart Centre.

At the same time, the researchers emphasise the need for more data. "To get a clearer picture of the potential benefits of taking statins before a heart operation, we need to have more clinical trials and find out whether clinical outcomes can be further improved if patients use special statin dosing regimens shortly before a heart procedure," says Liakopoulos.

More information: Liakopoulos OJ, Kuhn EW, Slottosch I, Wassmer G, Wahlers T. Preoperative statin therapy for patients undergoing cardiac surgery. *Cochrane Database of Systematic Reviews* 2012, Issue 4. Art. No.: CD008493. [DOI: 10.1002/14651858.CD008493.pub2](https://doi.org/10.1002/14651858.CD008493.pub2)

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