

Taking statins before heart surgery can help reduce post-surgical complications

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Using statins before and after coronary artery bypass grafting (CABG) surgery can help reduce cardiac complications, such as atrial fibrillation, following surgery and also can reduce the risk of death during and after surgery, according to a review article posted online today by *The Annals of Thoracic Surgery*. The article will appear in the February issue of the journal.

Key Points:

- Using [statins](#) before and after CABG surgery can help reduce [cardiac complications](#), such as atrial fibrillation, following surgery.
- Statin use also seemed to be associated with a reduced risk of death during and immediately after CABG surgery.
- More research is needed on optimal dose and duration of statin use, as well as its benefits in reducing the risk of stroke, [heart attack](#), or kidney problems after surgery.

The body often responds to CABG surgery and other major operations that involve prolonged anesthesia with an intense inflammatory reaction, which has been linked to postoperative complications. Statins are cholesterol-lowering drugs that also have anti-inflammatory properties.

"Previous research has shown that discontinuation of the medication at the time of surgery is common practice," said Amr F. Barakat, MD, from the Cleveland Clinic Foundation. "The results of our review call for proactive efforts to counsel patients and surgeons about the benefit of statins—a benefit that definitely outweighs the risk of rare potential side effects."

Dr. Barakat and colleagues, including Islam Y. Elgendy, MD, from the University of Florida in Gainesville, examined statin use both before and after surgery to evaluate the medication's impact on patient outcomes. They reviewed all related

articles in the Medline database through July 2015.

"It appears that taking statins prior to CABG surgery can help protect patients against developing [atrial fibrillation](#), an irregular heartbeat that is a common complication following heart surgery," said Dr. Elgendy. "Statin use also seems to be associated with a [reduced risk](#) of death during and immediately after surgery."

The researchers also found that taking statins prior to surgery appeared to be well-tolerated by patients, and the risk of side effects was low compared to the potential benefits.

They added that further research is needed on optimal statin dose and duration, as well as on the impact statins may have in other areas. "The current evidence suggested that the benefit of statin use in reducing the risk of stroke, heart attack, or kidney problems after [surgery](#) is not well established," said Dr. Barakat. "Further research is needed to study these associations to determine if the benefits of statins expand beyond cardiac complications."

More information: Barakat A, Saad M, Abuzaid A, Mentias A, Mahmoud A, Elgendy I. Perioperative Statin Therapy for Patients Undergoing Coronary Artery Bypass Grafting. *Ann Thoracic Surg* 2015; DOI: doi.org/10.1016/j.athoracsur.2015.09.070

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