

Blood transfusions during heart surgery may up pneumonia risk

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But study found overall rate was under 4 percent.

(HealthDay)—Receiving a blood transfusion during heart bypass surgery may raise a patient's risk of pneumonia, researchers report.

"The ability to store and transfuse blood is one of medicine's greatest accomplishments, but we are continuing to see that receiving a [blood transfusion](#) may alter a patient's ability to fight infection," Dr. James Edgerton, of The Heart Hospital, Baylor Plano in Texas, said in a Society of Thoracic Surgeons news release. He was not involved in the study.

For the current study, investigators looked at data on more than 16,000 patients who had [heart bypass surgery](#). The surgeries took place at 33 U.S. hospitals between 2011 and 2013.

Nearly 40 percent of those surgical patients received red blood cell transfusions, the findings showed. Just under 4 percent of the entire group developed [pneumonia](#).

People given one or two units of [red blood cells](#) were twice as likely to develop pneumonia compared to those who didn't receive blood transfusions. Those who received six units or more were 14 times more likely to develop pneumonia, the researchers found.

Pneumonia is a known risk following [coronary artery bypass](#) grafting (CABG) surgery, and developing it has been shown to significantly increase a patient's risk of illness and death, study leader Donald Likosky, from the University of Michigan Health System, explained in the news release.

"Previous research has shown that one in every 20 CABG patients develop a major infection, with pneumonia being the most common type of infection," Likosky said.

The findings were to be presented Tuesday at the annual meeting of the Society of Thoracic Surgeons in San Diego. Findings presented at meetings are generally considered preliminary until they've been published in a peer-reviewed journal.

"Patients should receive red blood cell transfusions based on clinical need," Likosky said. "Surgical teams may have opportunities to reduce the need for transfusions among patients, thereby reducing the risk of secondary complications."

Edgerton added that the study shows "an increased risk of pneumonia after [transfusion](#), which is an important breakthrough because it allows physicians to remain vigilant for the onset of pneumonia and initiate therapy early in hopes of shortening its course and severity. It also

enables physicians to initiate preventive therapies in patients who have been transfused, which will contribute to better care of our patients."

Although the study found an association between blood transfusions and pneumonia, it did not prove a cause-and-effect relationship.

More information: The U.S. National Heart, Lung, and Blood Institute has more about [coronary artery bypass surgery](#).

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