

# Blood transfusions in cardiac surgery may up infections

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Transfusion of red blood cells during or after surgery may increase the risk of major infections, such as pneumonia and bloodstream infections, according to research published in the June issue of the *Annals of Thoracic Surgery*.

(HealthDay)—Transfusion of red blood cells (RBCs) during or after surgery may increase the risk of major infections, such as pneumonia and bloodstream infections, according to research published in the June issue of the *Annals of Thoracic Surgery*.

Keith A. Horvath, M.D., of the National Institutes of Health in Bethesda, Md., and colleagues conducted an observational study of 5,158 adults undergoing cardiac surgery at 10 medical centers in the United States and Canada to identify practices in medical management associated with risk for infections. The effects of blood and platelet transfusions on major infections within 60 ± 5 days following surgery were examined.

The researchers found that RBCs and platelets were transfused in 48 and 31 percent, respectively, of patients undergoing cardiac surgery. Each RBC transfusion was significantly linked with a 29 percent increase in the crude risk of major infection. The most common postoperative infections were pneumonia (3.6 percent) and [bloodstream infections](#) (1.9 percent). Factors associated with increased risk for infection

included number of RBC units transfused postoperatively, longer duration of surgery, and type of surgery (transplant or implantation of ventricular assist device), as well as patient characteristics, including [comorbid conditions](#) such as [chronic obstructive pulmonary disease](#), heart failure, and elevated preoperative serum creatinine levels. Platelet transfusion significantly decreased the risk of postoperative infection.

"The findings reported here are sobering: per unit of [red blood cells](#) transfused, the risks of infection increase 29 percent," Bruce D. Spiess, M.D., of the Virginia Commonwealth University Medical Center in Richmond, writes in an accompanying editorial. "Medicine is in need of a new and educated contemporary methodology for deciding when a transfusion should be indicated and useful."

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