

Bacteria can linger on airplane surfaces for days

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Disease-causing bacteria can linger on surfaces commonly found in airplane cabins for days, even up to a week, according to research presented at the annual meeting of the American Society for Microbiology.

"Many air travelers are concerned about the risks of catching a disease from other passengers given the long time spent in crowded air cabins," says Kiril Vaglenov, of Auburn University who presented the data. "This report describes the results of our first step in investigating this potential problem."

In order for disease-causing [bacteria](#) to be transmitted from a cabin surface to a person, it must survive the environmental conditions in the airplane. In the study Vaglenov and his colleagues tested the ability of two pathogens, methicillin-resistant *Staphylococcus aureus* (MRSA) and *E. coli* O157:H7 to survive on surfaces commonly found in airplanes. They obtained six different types of material from a major airline carrier (armrest, plastic tray table, metal toilet button, window shade, seat pocket cloth, and leather), inoculated them with the bacteria and exposed them to typical [airplane](#) conditions.

MRSA lasted longest (168 hours) on material from the seat-back pocket while *E. coli* O157:H7 survived longest (96 hours) on the material from the armrest.

"Our data show that both of these bacteria can survive for days on the

selected types of surfaces independent of the type of simulated body fluid present, and those pose a risk of transmission via skin contact," says Vaglenov.

This research is laying the groundwork for important work to come.

"Our future plans include the exploration of effective cleaning and disinfection strategies, as well as testing surfaces that have natural antimicrobial properties to determine whether these surfaces help reduce the persistence of disease-causing bacteria in the passenger aircraft cabin," says Vaglenov.

They currently have ongoing trials with other human pathogens including the bacteria that cause tuberculosis.

More information: This research was presented as part of the 2014 General Meeting of the American Society for Microbiology held May 17-20, 2014 in Boston, Massachusetts.

Provided by American Society for Microbiology

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