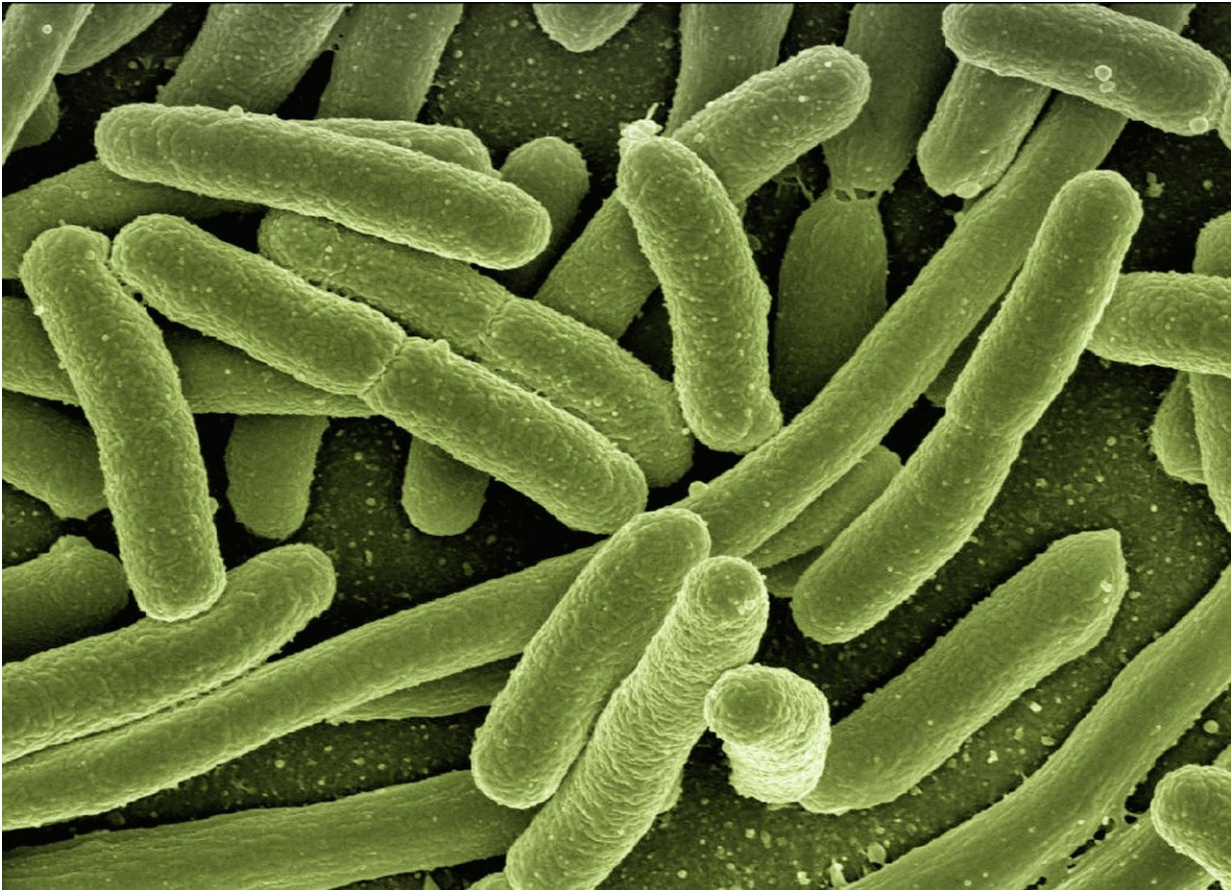


# Copper hospital beds kill bacteria, save lives, study finds

November 13 2019, by Nancy Clanton

---



Credit: CC0 Public Domain

Hospital infections sicken about 2 million Americans every year and kill nearly 100,000, according to the co-author of a new study.

Those deaths are "roughly equivalent to the number of deaths if a wide-bodied jet crashed every day," said Michael G. Schmidt, professor of microbiology and immunology, Medical University of South Carolina, Charleston.

Hospital-acquired infections are the eighth leading cause of death in the U.S., and one of the main culprits for spreading germs is the hospital bed.

"Despite the best efforts by environmental services workers, they are neither cleaned often enough, nor well enough," Schmidt said.

Beds with [copper surfaces](#), however, were found to harbor an average of 94% fewer bacteria than conventional hospital beds, which have plastic surfaces.

Copper's antimicrobial properties have been known since ancient Ayurveda, when drinking water was often stored in copper vessels to prevent illness. Ayurveda is one of the world's oldest holistic healing systems, according to Science Daily.

In the modern medical era, [numerous studies](#) have noted copper's antimicrobial properties. But few if any hospital beds have been made with copper.

"Based on the positive results of previous trials, we worked to get a fully encapsulated copper bed produced," Schmidt said. "We needed to convince manufacturers that the risk to undertake this effort was worthwhile."

The study's researchers compared the rails, footboards and controls of the traditional [hospital](#) bed to those of the copper bed. Nearly 90% of the bacterial samples taken from the tops of the plastic rails had

concentrations of bacteria that exceed levels considered safe, tests found.

"The findings indicate that antimicrobial copper beds can assist [infection](#) control practitioners in their quest to keep healthcare surfaces hygienic between regular cleanings, thereby reducing the potential risk of transmitting bacteria associated with healthcare associated infections," Schmidt said.

Not only did the copper beds have fewer microbes, but they also remained below the safe level through the duration of patients' visits.

The study, published in the journal of *Applied and Environmental Microbiology*, recommends a broader study to determine [copper](#) beds' long-range efficacy for reducing healthcare-associated infections.

©2019 The Atlanta Journal-Constitution (Atlanta, Ga.)  
Distributed by Tribune Content Agency, LLC.

Citation: Copper hospital beds kill bacteria, save lives, study finds (2019, November 13)  
retrieved 8 May 2024 from  
<https://medicalxpress.com/news/2019-11-copper-hospital-beds-bacteria.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--