

# Health Care Providers' Computer Keyboards & Bacteria Hazards Fact Sheet

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The widespread use of computers and key covers in health care facilities has improved efficiency but also created new infection prevention challenges. Computer keyboards and keypads can harbor harmful bacteria for extended periods, which is especially risky in places like hospitals where patients can easily get infections.



## Key Bacteria of Concern

Research has identified several problematic bacteria that can survive on keyboards:

- **Vancomycin-resistant Enterococcus faecium (VRE).**  
VRE can cause serious infections in people with weak immune systems.
- **Methicillin-resistant Staphylococcus aureus (MRSA).**  
MRSA causes antibiotic-resistant staph infections that are hard to treat.
- **Pseudomonas aeruginosa (PSAE).**  
PSAE is a common cause of health care-associated infections.

VRE and MRSA can survive for at least 24 hours on computer and keypad equipment,<sup>1</sup> while PSAE can last up to an hour on keyboards.<sup>2</sup>

## Transmission Risks

- A study found that 98.5% of hospital computer keyboards were colonized by pathogens.<sup>3</sup>
- A separate systematic review reported a 96.7% transmission rate from keyboards to hands.<sup>4</sup>

Once on health care workers' hands, bacteria can easily spread to patients.

## Prevention Strategies

To reduce transmission risks:

- Practice proper hand hygiene before and after computer use.
- Wash hands after patient contact.
- Develop protocols to regularly disinfect computer equipment.
- Consider using washable, antimicrobial keyboards and covers.
- Implement no-touch computer interfaces where feasible.

## Best Practices

The [National Center for Health Research](#) recommends:

- Disinfecting hospital keyboards at least once daily

- Staff hand washing before and after using shared computers

Some manufacturers now offer hospital-grade keyboards with antimicrobial coatings,

## Conclusion

Computer use in health care settings has many advantages, but it is important to keep things clean to prevent infections from dirty keyboards and other surfaces that people touch. Regularly cleaning and disinfecting these surfaces, along with washing hands often, are the key ways to prevent the spread of germs. For more details on how to wash hands properly, check out the Texas Department of Insurance, Division of Workers' Compensation publication, "Hand Hygiene Fact Sheet ([English](#))/([Spanish](#)).

## References

- <sup>1</sup> National Center for Health Research, "Are There More Bacteria on Computer Keyboards Than Toilet Seats." Website. <https://www.center4research.org/bacteria-computer-keyboards-toilet-seats/#:~:text=Keyboards%20and%20Bacteria&text=That%20study%20took%20samples%20from,could%20survive%20for%20an%20hour>. Accessed September 10, 2024.
- <sup>2</sup> Science Daily, "Northwestern Memorial Study Finds That Computer Keyboards May Harbor Harmful Bacteria." Website. <https://www.sciencedaily.com/releases/2005/04/050418094918.htm>. Accessed September 10, 2024.
- <sup>3</sup> Hussain, Sarah. "Computer Keyboards Transmitting More Than Words: A Knowledge Synthesis of Computer Keyboards in Hospitals as a Reservoir for Methicillin-resistant Staphylococcus aureus Infection." PDF. [https://ccnse.ca/sites/default/files/Full%20Document%20EN%20-Hussain\\_0.pdf](https://ccnse.ca/sites/default/files/Full%20Document%20EN%20-Hussain_0.pdf). Accessed September 10, 2024.
- <sup>4</sup> National Center for Biotechnology Information, "What's on your keyboard? A systematic review of the contamination of peripheral computer devices in healthcare settings." Website. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6429971/>, Accessed September 10, 2024



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