

# Hand Hygiene in Healthcare Settings

## Show Me the Science

Learn how clean hands count to protect patients and healthcare providers.

### Is There Such a Thing as Too Clean?

- Germs are everywhere. They are within and on our bodies and on every surface you touch. But not all germs are bad. We need some of these germs to keep us healthy and our immune system strong.
- Your hands have good germs on them that your body needs to stay healthy. These germs live under the deeper layers of the skin.
- Your hands can also have bad germs on them that make you sick. These germs live on the surface and are easily killed/wiped away by the alcohol-based hand sanitizer.
- Using an alcohol-based hand sanitizer is the preferred way to keep your hands clean.
- Alcohol-based hand sanitizers kill the good and bad germs, but the good germs quickly come back on your hands.

### Washing with Soap and Water: 15 vs. 20 Seconds

- Wash your hands for at least 15 seconds, not specifically 15 seconds.
- The time it takes is less important than making sure you clean all areas of your hands.
- Alcohol-based hand sanitizers are the preferred way to clean your hands in healthcare facilities.

### References

1. Guidelines for Hand Hygiene in Healthcare Settings Published 2002  [PDF – 496 KB] ; pp. 8 and 32.

### Which One? Soap and Water vs. Alcohol-Based Hand Sanitizer

An alcohol-based hand sanitizer is the preferred method for cleaning your hands when they are not visibly dirty because it:

- Is more effective at killing potentially deadly germs on hands than soap
- Is easier to use during the course of care, especially
  - when moving from soiled to clean activities with the same patient or resident

- when moving between patients or residents in shared rooms or common areas
- Improves skin condition with less irritation and dryness than soap and water

## References

1. Core Infection Prevention and Control Practices for Safe Healthcare Delivery in All Settings
2. Guidelines for Hand Hygiene in Healthcare Settings Published 2002 [PDF – 496 KB]; 25.

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## Areas Frequently Missed When Cleaning Your Hands

These areas are most often missed by healthcare providers when using alcohol-based hand sanitizer:

- Thumbs
- Fingertips
- Between fingers

## References

1. Widmer, A. F., Dangel, M., & RN. (2004). Alcohol-based hand rub: evaluation of technique and microbiological efficacy with international infection control professionals. *Infection Control and Hospital Epidemiology*, 25(3), 207-209.

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## Glove Use is Not a Substitute for Cleaning Your Hands

- Always clean your hands after removing gloves. Dirty gloves can soil hands.
- It is important to change your gloves:

IF:

- **Gloves are Damaged**
- **Moving from contaminated body site to clean body site**
- **Gloves look dirty or have blood or bodily fluids on them after completing a task**

THEN:

- **Gloves look dirty or have blood or bodily fluids on them after completing a task**

- **References**

## Technique Matters

- Use the right amount of alcohol-based hand sanitizer product to clean your hands
- The efficacy of alcohol-based hand sanitizer depends on the volume applied to the hands

### References

1. Widmer, A. F., Dangel, M., & RN. (2007). Introducing alcohol-based hand rub for hand hygiene: the critical need for training. *Infection Control and Hospital Epidemiology*, 28(1), 50-54.

## *C. difficile* and Alcohol-Based Hand Sanitizer

- *C. difficile* is a common healthcare-associated infection that causes severe diarrhea.
- *C. difficile* forms spores that are not killed by an alcohol-based hand sanitizer.
- The spores can be transferred to patients via the hands of healthcare providers who have touched a contaminated surface or item.
- If you have a *C. difficile* infection, make sure your healthcare providers wear gloves when examining you.
- The most important way that you can prevent the spread of *C. difficile* is by washing your hands with soap and water after touching potentially contaminated surfaces.

### References

1. Guidelines for Hand Hygiene in Healthcare Settings Published 2002 [PDF – 496 KB]; 5, 16-17.

## Alcohol-Based Hand Sanitizers Do Not Cause Antibiotic Resistance

- The antimicrobial activity of alcohols can be attributed to their ability to denature proteins. They kill germs quickly and in a different way than antibiotics.
- Alcohol-based hand sanitizers containing at least 60%-95% alcohol are most effective at denaturing proteins.
- There is no chance for the germs to adapt or develop resistance.

### References

1. Guidelines for Hand Hygiene in Healthcare Settings Published 2002 [PDF – 496 KB]; pp. 8 and 32.

Studies show that some healthcare providers practice hand hygiene less than half of the times they should. Healthcare providers might need to clean their hands as many as 100 times per 12-hour shift, depending on the number of patients and intensity of care. Know what it could take to keep your patients safe.