

CLOSTRIDIODES DIFFICILE (*C. DIFFICILE*)

What is *C. difficile*?

Clostridioides difficile (*C. difficile*) is a spore-producing bacteria that causes mild to severe diarrhea and intestinal conditions such as inflammation of the colon. *C. difficile* is the most frequent cause of infectious diarrhea in hospitals and long-term care homes in Canada and other industrialized countries.

Some people can carry *C. difficile* in their intestines without it causing them any harm or symptoms of infection. This is called colonization.

How does *C. difficile* spread?

C. difficile is typically spread in health care facilities such as hospitals and long-term care homes, which is why infection prevention and control best practices are to be followed at these facilities.

C. difficile bacteria is spread to other people through direct contact (usually from the hands or gloves of health care workers) or indirectly through contact with shared items or high touch surfaces (e.g., bathrooms, commodes, bed/handrail, walkers etc.). *C. difficile* spores can survive for weeks on flat and frequently touched surfaces and equipment if they are not properly cleaned and disinfected.

The bacteria spores need to be swallowed and when people are prescribed antibiotics because they have another illness, the *C. difficile* bacteria can cause infection. It is important to always wash your hands before eating, drinking, or touching your face or after using the bathroom. Those that provide care to others must wash their hands after touching blood and body fluids and after removing gloves.

Due to the ability of *C. difficile* to produce spores, the bacteria are resistant to many environmental disinfectants, making them hard to kill.

What are risk factors for *C. difficile* infection?

C. difficile infection is more likely to develop among the elderly, individuals who are hospitalized and those with severe disease or weakened immune systems.

Other factors that increase the risk of getting *C. difficile* infection include:

- *C. difficile* colonization
- Use of antibiotics especially when taken over a prolonged period
- Cancer chemotherapy

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How is *C. difficile* treated?

If a person has *C. difficile* bacteria present in their body (colonization) but has no symptoms of an infection, they do not usually need treatment. If a person who is colonized takes antibiotics for a prolonged time the *C. difficile* bacteria can overgrow in their intestine and cause symptoms.

If a person has a *C. difficile* infection and it is detected early and symptoms are mild, it will often resolve on its own once the antibiotic is discontinued or altered. In severe cases, a physician will determine the best course of treatment. Antibiotics or surgery to remove the damaged section of the bowel may be needed.

What can be done to prevent the spread of *C. difficile*?

HAND HYGIENE

Proper hand hygiene is one of the most effective ways to reduce the risk of getting colonized or infected with *C. difficile*.

Practice good hand hygiene before and after contact or care with patients/residents.

Proper hand hygiene techniques include washing hands for 15 seconds with soap and running water or applying alcohol-based hand rub (70-90% ethanol or isopropyl alcohol) to all areas of your hands (use a thumb-sized amount) and rubbing hands until they are dry.

If using hand rubs, be mindful that they are less effective than washing with soap and water as they do not destroy *C. difficile* spores.

Hands should be cleaned:

- After using the bathroom
- After blowing your nose
- Before eating and drinking
- Before and after touching dressings or wounds
- When hands are visibly dirty (soiled)
- Before entering or leaving a patient/resident room

It is also important to educate and remind patients/residents about the proper way to perform hand hygiene.



ADDITIONAL MEASURES

Additional measures need to be taken in the health care facility to stop *C. difficile* from spreading to other people. The following measures should be taken for a colonized or infected individual:

- Private room accommodation is preferred (the door can remain open)
- Hand hygiene is performed by everyone who enters and leaves the room
- Long-sleeved gown and gloves are worn by everyone who provides direct care
- The proper steps for putting on and taking off personal protective equipment are followed
- Signage is placed on the door to remind anyone entering the room what measures need to be taken
- Equipment should be dedicated to the patient/resident or adequately cleaned and disinfected after each use if it is shared. This includes transport equipment (e.g., wheelchairs)
- The room and equipment used in the room is cleaned and disinfected twice daily using a health care-grade disinfectant or a sporicidal agent
- The bathroom is cleaned and disinfected twice daily using a sporicidal agent
- The room and bathroom are terminally cleaned with a sporicidal agent upon discharge or after Additional Precautions have been discontinued. Fresh supplies should be stocked including toilet brushes

References

https://www.publichealthontario.ca/-/media/Documents/E/2023/ec/environmental-cleaning-significant-microorganisms-faqs.pdf?rev=f7aa82226ed54c6d8ee00760860b9b12&sc_lang=en

<https://www.canada.ca/en/public-health/services/infectious-diseases/fact-sheet-clostridium-difficile-difficile.html>