

About *Clostridioides difficile*

Clostridioides difficile—or *C. difficile*—is a type of bacterium that can live in human intestines.¹ *C. difficile* infection (CDI) can cause diarrhea. It can be serious and potentially fatal and occurs worldwide.^{2,3,4}



C. difficile bacteria can be anywhere and persistent.

The spores are found throughout the environment in soil, household objects such as bathroom fixtures, human and animal feces, and in contaminated food products.^{1,4,5,6} It has the ability to exist and spread in an inactive state known as spores, which are highly resilient and easily transmissible.⁷ *C. difficile* spores are resistant to heat and other common cleaning agents like detergents and alcohol-based hand sanitizers,^{8,9} and the bacteria can persist on hard surfaces for up to five months.^{10,11}

Despite more than a decade of intervention, the burden of *C. difficile* remains high.

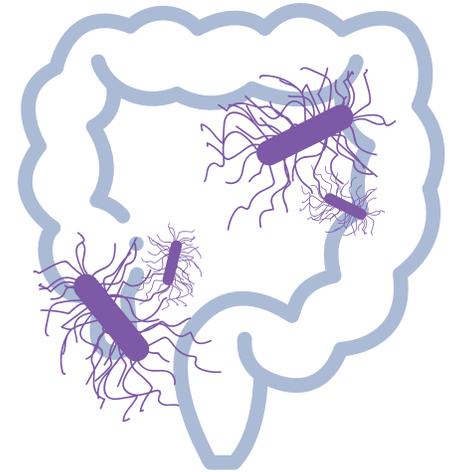
An estimated 462,000 *C. difficile* infections (CDIs) occur yearly in the US alone.¹²

In the past, there had been a focus on the risk of contracting infections from healthcare settings like hospitals and nursing homes. Now, however, an increasing number of cases are being reported outside of these settings.^{5,13,14}

According to the CDC's Emerging Infections Program (EIP) for CDI, nearly 50% of CDIs were found to be community-associated.¹⁵



C. difficile has been recognized by the World Health Organization (WHO) as a priority pathogen and, by the US Centers for Disease Control and Prevention (CDC) as a public health threat that requires urgent and aggressive action.^{16,17}



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Who is likely to get a CDI?

C. difficile infection disproportionately affects older adults and represents an important health burden in adults 65 years of age and older.¹⁸ Nearly two-thirds of cases occur in individuals over 65 years of age, and one out of 11 US adults aged 65 and older with healthcare-associated CDI will die within one month of diagnosis.¹⁹



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Despite apparent recovery from an initial episode, as many as one in five people treated for CDI will experience at least one recurrence of the infection.²⁰ Of those who experience recurrence, an estimated 40% to 60% will experience multiple episodes.²¹ With each recurrence, treatment options become more limited.⁸

The impact of CDI goes beyond infection...

The burden associated with CDI can have negative emotional, social and financial impacts on the affected individual.^{22,23}

Each year, the US spends around \$4.8 billion, and Europe spends around \$3 billion, in healthcare-related CDI costs.^{13,24} The disease also can contribute to:

- Longer hospital stays^{13,25}
- Decreased productivity²⁴
- Reduced quality of life^{5,25}
- Increased risk of morbidity and mortality⁵

CDI can have effects on a patient's mental and emotional health, with some experiencing anxiety and fear about recurrence.²³

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Risk Factors

Antibiotic use is the primary risk-factor for developing CDI.²⁶



Although antibiotics are critically important in treating specific infectious diseases, they also kill "good" bacteria that may help keep an individual free from *C. difficile* overgrowth and infection.^{1,5}

Other risk factors for CDI include:^{1,26}

- Advanced age
- A weakened immune system
- Hospitalization
- Previous infection with *C. difficile* or known exposure to the bacteria

Symptoms

Common symptoms of CDI include watery diarrhea more than three times a day;^{1,26} abdominal tenderness or pain; fever; nausea; loss of appetite.^{1,27}



Severe symptoms may include swelling or inflammation of the large intestine, toxic megacolon (a rare yet life-threatening complication of severe colon disease or infection), and in some cases may even result in death.¹



Prevention and Treatment

***C. difficile* infection is primarily transmitted through contact with a contaminated surface or from a person who has the germ.²⁷**

The importance of educating about good preventative measures for the patient and those in contact with them to limit the spread, both in hospitals and the community, is paramount.



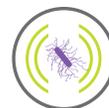
Thorough hand washing



The use of spore-killing disinfectants



Judicious use of antibiotics



Isolation of those who are infected

Current CDI prevention primarily focuses on thorough hand washing, the use of spore-killing disinfectants, such as hypochlorite solutions, judicious use of antibiotics, and the isolation of those who are infected.¹ While these methods may help limit spread of the infection, the impact remains high for those who contract the disease.^{8,12}

If infection is not prevented, CDI is typically treated with antibiotics.²⁸

You can find more information from the Centers for Disease Control *C. difficile* Factsheet at the following link: <https://www.cdc.gov/cdiff/pdf/Cdiff-Factsheet-508.pdf>

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