

***Clostridium difficile* INFECTION**

What is *Clostridium difficile* infection?

Clostridium difficile, is an organism that is frequently found in water, soil and the feces of both, humans and animals. *C. difficile* can live in the gut of healthy human beings without causing disease but, given the right circumstances, such as antibiotic use or use of proton pump inhibitor medications (such as omeprazole, pantoprazole, nexium), *C. difficile* can flourish and cause a severe infection. The infection, known as colitis, is a life-threatening inflammation of the colon that leads to severe, prolonged diarrhea. People with *C. difficile* colitis may become septic and die as a direct consequence of the infection.

What are the symptoms of *C. difficile* colitis?

The most common symptom is severe watery diarrhea, at least three bowel movements per day for two or more days. Other symptoms may include: abdominal pain, fever, nausea and vomiting

How is *C. difficile* spread?

Clostridium difficile is shed in feces. Surfaces, devices, or materials (e.g., toilets, bathing tubs, high touch objects) may become contaminated with *Clostridium difficile* spores. *Clostridium difficile* spores are transferred to patients mainly via the hands of those who have touched a contaminated surface or item. *Clostridium difficile* can live for long periods on surfaces. It is resistant to many commonly used cleaners and disinfectants.

How long are people contagious?

A person is typically considered infectious while s/he is still having diarrhea. Because the organisms may survive in the environment for months and infect susceptible individuals, it is very important to practice environmental cleaning and disinfection, as well as consistent hand washing.

Who gets *C. difficile* colitis? Anyone can get *C. difficile* but the risk for disease increases in people with:

- Antibiotic exposure
- Proton pump inhibitors
- Gastrointestinal surgery/manipulation
- Long length of stay in healthcare settings
- A serious underlying illness
- Immunocompromising conditions
- Advanced age

What treatment is available for people with *C. difficile*?

The best first step in the treatment is to discontinue antibiotics that are not absolutely necessary. Treatment options include using vancomycin or fidaxomicin. Other drug combinations may be used for the treatment of relapses, which may occur in up to 25% of people with *C. difficile* associated diarrhea. Stool transplantation has been used with success in specialized centers with sufficient expertise and resources. The number of centers where stool transplants can be safely done is limited. This is not currently considered community standard of care but transferring patients to a medical center with the ability to perform stool transplants may be an option for patients with multiple recurrences. Severely ill patients may require surgical intervention. Surgery may be a life-saving intervention in extremely severe cases.

Do infected people need to be kept home from school, work or daycare?

Infected children should stay home from day care until diarrhea has resolved, AND proper hygiene measures can be maintained. Food handlers should be excluded from work until diarrhea has resolved and observe thorough handwashing practices with soap and water as alcohol-based hand rubs are not effective against *C. difficile*. People who provide patient care should consult with their facility's policy on returning to work.

How can I protect myself and my family from getting *C. difficile*?

- Avoid the use of unnecessary antibiotics and/or proton pump inhibitors
- Alert your health care provider should you develop symptoms, including diarrhea while taking these medications or, within 3 months of having completed a course of antibiotics
- Exercise frequent hand washing
- Always wash your hands with soap and water before eating or putting anything in your mouth
- Alcohol based hand sanitizers do not suffice eradicating the spores. Hand washing is the recommended way of preventing infection.