

Clostridium difficile Fact Sheet

What is *Clostridium difficile*?

Clostridium difficile (also known as “*C. difficile*” or “*C. diff*”) is a bacterium that can be found in people’s intestines (their “digestive tract” or “gut”). However, it does not cause disease by its presence alone; it can be found in healthy people, about 3% of adults and two thirds of babies with no symptoms. It causes disease when the normal bacteria in the gut, with which *C. difficile* competes, are disadvantaged, usually by someone taking antibiotics, allowing *C. difficile* to grow to unusually high levels. This allows the toxin they produce to reach levels where it attacks the intestine and causes symptoms of disease. Ensuring antibiotics are used only when really necessary is very important.

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

C. difficile causes diarrhoea (mild to severe) and, unusually, life-threatening inflammation of the intestines. Other symptoms can include fever, loss of appetite, nausea and abdominal pain or tenderness.

How is the infection transmitted from one patient to another?

Patients can be infected with *C. difficile* by ingesting the bacteria through contact with the contaminated environment or another patient. In most healthy people *C. difficile* will not be able to multiply in the gut and they will not develop disease. However some people will be more susceptible, particularly those whose normal gut bacteria have been disrupted by antibiotic treatment. *C. difficile* may be able to multiply in the gut and go on to cause disease.

How is it treated?

The disease can be treated with appropriate antibiotics that target *C. difficile*.

How is *C. difficile* infection diagnosed?

Initial diagnosis can be on the symptoms and patient history (e.g. having taken antibiotics). Such a preliminary diagnosis can initiate increased levels of infection control precautions, such as isolation of a patient in a single room, to prevent spread. This can be followed up with looking for *Clostridium difficile* toxins in the faeces, but this test will take a day to do.

Who is most at risk of *C.difficile*?

C. difficile mostly affects people who:

- have been treated with broad-spectrum antibiotics (antibiotics that work against several types of bacteria) or several different antibiotics at the same time, or those taking long-term antibiotics
- have had to stay in a healthcare setting, such as a hospital or care home, for a long time

- are over 65 years old
- have certain underlying conditions, including inflammatory bowel disease (IBD), cancer or kidney disease
- have a weakened immune system, which can be because of a condition such as diabetes or a side effect of a treatment such as chemotherapy or steroid medication
- are taking a medication called a proton pump inhibitor (PPI) to reduce the amount of stomach acid they produce
- have had surgery on their digestive system

C.difficile infections used to occur in places where patients are in close proximity to each other or where antibiotics may need to be used more frequently, such as hospitals and care homes. However, strict infection control measures have helped reduce this risk and an increasing number of *C.difficile* infections now occur outside these settings.

How can hospitals prevent the spread of *Clostridium difficile*?

Identifying patients in the early stages of this disease and introducing enhanced infection control measures, such as placing them in a single room, helps limit spread. Staff should wear disposable gloves and aprons when caring for infected patients, and wash their hands after contact with a patient who has the infection. *C. difficile* contamination is removed from the environment by thorough cleaning using a bleach based cleaning agent. In an outbreak situation, the Infection Prevention and Control Team may introduce additional special measures for staff, patients and visitors.

If I have *Clostridium difficile* what should I do to prevent the spread to others?

Clostridium difficile is able to produce a form of cell called a spore which is highly resistant to chemicals. Hand washing using soap and water rather than alcohol hand rub is recommended. Soap and water will remove the microorganisms (including spores) from the hands, whilst alcohol hand rubs will not destroy the spores. In order to reduce the chance of spreading the infection to others: it is advisable to wash hands with soap and water, especially after using the toilet and before eating. You should also encourage your visitors to wash their hands when they leave.

Does somebody who has had a *C. difficile* infection pose a risk to others after they have been discharged?

There should be no restriction on the discharge or transfer of patients who have had *Clostridium difficile* diarrhoea but have recovered. Once someone has recovered clinically they are not a risk to others even if they continue to carry the organism in their intestines provided that they observe normal personal hygiene precautions such as hand washing after using the toilet. Thus having had *Clostridium difficile* infection is not a restriction to a patient returning to a care home/nursing home/community hospital.

Adapted from:

HPA *Clostridium difficile* Factsheet (last reviewed 1 February 2009) Available from:

<https://www.gov.uk/government/publications/clostridium-difficile-what-it-is-how-to-prevent-how-to-treat>

NHS Choices *C.difficile* (last reviewed 3 February 2016) Available from:

<http://www.nhs.uk/conditions/clostridium-difficile/pages/introduction.aspx>