

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 the 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.

What are the symptoms of C. difficile infection?

Clostridium 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 do you catch it?

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

How is it treated?

In most patients the disease can be treated with antibiotics.

How Clostridium 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 does it affect? Are some people more at risk?

Those who have taken antibiotics, particularly the elderly; over 80% of cases are reported in the over 65s. Immuno-compromised patients are also at risk. Children under the age of 2 years are not usually affected.

How can hospitals prevent the spread of Clostridium difficile?

As antibiotics sensitise patients to *Clostridium difficile* infection, ensuring they are used only when really necessary is a very effective control measure.

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. *Clostridium difficile* contamination should be removed from the environment by daily thorough cleaning using a bleach containing cleaning agent.

In an outbreak situation, the Infection 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 of to others?

Because *Clostridium difficile* is able to produce a form of cell that is highly resistant to chemicals (spores), hand washing using soap and water rather than alcohol is recommended after contact with a patient with *Clostridium difficile*. 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 the leave.

I have heard that some patients are at increased risk for *Clostridium difficile* disease. Is that true?

It is true. The risk for disease increases in patients with the following:

- antibiotic exposure
- gastrointestinal surgery/manipulation
- long length of stay in healthcare settings
- a serious underlying illness
- immuno-compromising conditions
- advanced age

Does somebody who has had a *Clostridium 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.

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