



NHS North Essex

Clostridium difficile

What Is it?

Your Questions Answered

Clostridium difficile

What Is It?

Clostridium difficile (sometimes referred to as *C.difficile* or *C.diff*) is a bacterium (germ) which can be found in small numbers in the intestine of a small proportion of healthy people (less than 3% - known as carriers) and sometimes in the intestine of healthy babies under the age of two.

The intestines of healthy people contain normal/helpful germs (good bacteria) which are destroyed by antibiotic treatment.

C. difficile germs are able to increase when there are less 'good' bacteria in the intestine. This means people with *C.difficile* germs in their intestine are at risk of infection if they are treated with antibiotics.

C. difficile germs produce two toxins (poisonous substances) that cause diarrhoea and damage the lining of the intestine. *C.difficile* germs also produce spores (reproductive cells) which means the germ can live for a long time on floors, surfaces, toilets etc (you may hear this referred to as the environment). These spores are resistant to general everyday cleaning detergents and chemical disinfectants.

How Is The Infection Caught?

The spores of the *C.difficile* germs (which are invisible) can be picked up onto the hands either from the environment, an infected person or healthcare staff. If the hands are not washed properly before eating, the spores can be transferred to the mouth and swallowed, allowing the germs to enter the intestine. If the 'good' bacteria are reduced by antibiotic treatment *C.difficile* infection can occur.

Research suggests that other drugs or treatments that affect the normal bacteria in the intestine such as anti-ulcer medication (eg Omeprazole, Lansoprazole) and laxatives may also contribute to *C.difficile* infection.

How Is The Infection Diagnosed?

C.difficile infection should be suspected in anyone with diarrhoea who has recently had antibiotic treatment, a recent hospital stay and is over 65 (although it affects younger people). If *C.difficile* infection is suspected a specimen of your bowel movement is sent to the hospital laboratory to test for the toxins (poisonous substances) that the germ produces. Relapse or reactivation of the infection can happen in around 20-30% of people.

What Are The Symptoms?

Diarrhoea is the most common symptom but you could also have tummy pain/cramps and fever. In most people symptoms are mild and a full recovery is made. Although diarrhoea in elderly people can result in dehydration (loss of water from the body) leading to serious illness. Some strains of *C.difficile* are more likely to lead to severe life threatening illness. Patients who develop a severe form of the infection where the intestine is seriously damaged may need to have an operation.

How Long Will The Symptoms Last?

7 to 10 days is the most common length of time, generally symptoms will start to settle down within a few days of treatment although this varies from person to person.

How Is It Treated?

Fortunately, most people only develop a mild illness. Stopping the antibiotics that may have resulted in the *C.difficile* infection (if this is possible), together with fluid replacement either by mouth or intravenous drip, greatly improves the symptoms. Often it is necessary to treat

infected people with an antibiotic that is active against *C.difficile*. Metronidazole is the first choice for non-severe infection and Vancomycin if this is not effective or for severe cases of infection. These antibiotics are usually taken in tablet form for fourteen days. To prevent a relapse or re-activation (a further episode of *C.difficile* diarrhoea) it is important to complete the whole course, even if the diarrhoea has gone.

You may also be given a Pro-biotic supplement while you are in hospital which is thought to help restore the balance of 'good' bacteria. You should avoid taking further antibiotics and medication such as Loperamide to stop the diarrhoea. If *C.difficile* infection is suspected (medical advice should be taken).

Can It Be Prevented?

Where possible in confirmed or suspected cases of *C.difficile* infection within health and social care settings, must be cared for in a single room. Disposable gloves and aprons should be worn by staff when caring for infected people. Thorough and vigorous hand washing with liquid soap and water (especially after using the toilet and before eating) is of the utmost importance in preventing the spread of *C.difficile*. ***It is important to note that anti-bacterial hand gels are not effective on C.difficile spores although you may use it after your hands have been washed with liquid soap and water.*** Toilets, surfaces, floors, commodes/bedpans, bedding etc should be washed regularly.

This leaflet is aimed at providing general advice; if you require further information, please contact:

**The Infection Control Team
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