

# CLOSTRIDIUM DIFFICILE

## Human pathogen information sheet – hygiene keeps you safe!

### What is Clostridium difficile?

Clostridium difficile is a bacterium that occurs around the world. It is found in the environment and also occurs in the intestines of healthy persons and animals. Clostridium difficile bacteria may, however, become a problem if extended taking of antibiotics has changed or even destroyed the usual intestinal flora. Clostridium difficile bacteria may excrete toxins that may cause intestinal inflammation with severe diarrhoea in certain cases. Clostridium difficile disease occurs most often in hospital patients.

### How does Clostridium difficile spread?

The pathogens are excreted in the stool. They are highly contagious. Even a small amount of the germs is sufficient for contagion. Not everyone will fall sick, however.

#### *Person-to-person*

Infection usually happens person-to-person by contact infection. Clostridium difficile bacteria are passed on in minute traces of faecal matter from patients to others via the hands. From the hand, the pathogens enter the mouth.

#### *Via contaminated objects*

In their resistant permanent forms, the spores, the bacteria may also survive outside of the gastrointestinal tract, and can sometimes do so for years. Therefore, they can also be transmitted via contaminated objects and areas, such as toilets, door handles, handles or hand rails.

### What symptoms do the patients show?

The intestinal infection shows itself in the form of sudden, watery diarrhoea, nausea, stomach ache and fever. The diarrhoea has a typical rotting smell and can be bloody. In some cases, the disease will heal on its own.

*Possible complications* are ileus, acute expansion of the large intestine, a hole or tear in the intestinal wall or blood poisoning (sepsis).

### What's the incubation period – and how long are you contagious?

A person's intestinal flora can have the Clostridium difficile bacteria without causing any complaints.

The time between antibiotics therapy and the occurrence of symptoms usually is only a few days. In rare cases, there may be several weeks or even months before the symptoms appear.

The danger of infection is highest during the acute illness. Patients may excrete the pathogens in their stool for some time after the symptoms end.

### Who is most at risk?

Clostridium infections most frequently happen in hospital patients. Older persons with underlying medical conditions as well as persons who have taken antibiotics in the last two months are particularly at risk. Older persons and persons with weakened immune systems also are at an increased risk of severe progress. Relapses after the end of the symptoms are more likely among older persons. The bacteria can be documented in 20% to 40% of all hospital patients. However, most show no complaints.

### What should I do if I fall ill?

- ▶ In case of strong diarrhoea, compensation for the loss of fluids and salt is particularly important. This means that you have to drink a lot.
- ▶ Eat easy-to-digest food with a sufficient salt content.
- ▶ Particularly older and weakened persons should see a doctor for examination and treatment. The doctor will take all measures required if the stool sample shows evidence of Clostridium difficile and its toxins.

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### What to do in case of illness?

#### *Observe the following precautionary measures:*

##### *1. Hand hygiene*

Generally: Wash your hands at regular intervals! Wash your hands thoroughly with soap and water after going to the toilet and before preparing any food or eating! The spores are washed off with water and soap as well. Dry your hands carefully using a clean cloth after washing. Patients and their household members should observe particularly thorough hand hygiene.

##### *2. Other hygiene procedures*

- ▶ Avoid direct contact with others during the term of the acute disease where possible.
- ▶ If the disease occurs during a hospital stay, the hospital staff will take special hygiene measures to avoid contagion of other patients. For this, the number of visitors is kept as low as possible.
- ▶ If sick, do not prepare any food for anyone else if possible.
- ▶ Do not share washing rags and flannels: always use your own.
- ▶ Frequently change bedclothes, flannels and washing rags and wash them at a minimum of 60°C. Wash the patient's things separately from those of others.
- ▶ Wash dishes in the dishwasher at the hottest programme, a minimum temperature of 60°C is recommended.
- ▶ Use the usual cleaning agents at home to clean toilets and door handles, fittings or light switches. But do clean these areas and objects more frequently. Use several wipes and wash them at once after use.
- ▶ If possible, use a separate toilet in case of diarrhoea.
- ▶ Antibiotics should only be taken in a targeted manner and in coordination with your doctor.
- ▶ If you handle food in your job and suffer from any contagious vomiting and/or diarrhoea, you must not attend work for the time.
- ▶ Children younger than 6 years who have been diagnosed with contagious vomiting and/or diarrhoea or where this is suspected, must not attend community facilities such as schools or nurseries. Parents must inform the community facility of the child's illness. The facility usually must not be attended again until at least 2 days after the symptoms disappear. The precise time is determined by the relevant health office. A written medical certificate is not required.
- ▶ Observe particularly careful hand and toilet hygiene for at least 2 weeks after the end of the symptoms.

### Where can I find out more?

Your local health authority can provide you with further advice. Since contagious diarrhoea is subject to the rules of the German Prevention of Infection Act, they will also have the latest information and be very experienced in dealing with the disease.

More (specialist) information is also available online from the Robert Koch Institute ([www.rki.de/clostridium](http://www.rki.de/clostridium)).

For more information about how hygiene can guard against infection, please visit the Federal Centre for Health Education website ([www.infektionsschutz.de](http://www.infektionsschutz.de)).



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