Clostridium difficile Infection (C. diff, CDI)

What is Clostridium difficile (C. diff)?

Clostridium difficile ("C. diff") is a spore-forming bacterium that can cause diarrhea and inflammation of the colon, known as colitis. C. diff is a leading cause of infectious diarrhea in health care settings in the United States, and recent studies show increasing rates of C. diff infection in the community setting as well.

How do you get it?

Clostridium difficile spores are shed in feces. Any surface, device, or material (e.g., toilets, bathing tubs, electronic rectal thermometers) that becomes contaminated with feces may serve as a reservoir for the C. diff spores, which can live for long periods of time. People can become infected if they touch items or surfaces contaminated with feces and then touch their mouth or mucous membranes. Spores can also be passed on the hands of healthcare workers.

People who are on antibiotics for extended periods of time are at greater risk for acquiring this infection, because antibiotics kill good germs that normally protect against C. diff infection. Other risk factors include older age and recent or current hospitalization.

Some people can carry C. diff without any symptoms, this is called “colonization”.

What are the symptoms of C. diff infection?

Once it has established an infection, C. diff can produce toxins that attack the lining of the intestine. These toxins destroy cells and cause symptoms including watery diarrhea, fever, loss of appetite, nausea, and abdominal pain/tenderness. C. diff can sometimes lead to serious complications and, rarely, death.

When do symptoms start?

Not all people who are colonized with C. diff develop a symptomatic infection. Of people who do become ill, it usually takes about three days between exposure and the development of symptoms.

What is the treatment for C. diff?

Treatment might not be necessary for those who are only colonized with C. diff. For people with infection (i.e., symptoms), there are some antibiotics available for treatment. All other current antibiotics should be stopped, if possible. Additionally, patients can be on supportive therapy (e.g., fluids) to avoid dehydration. Transplanting feces from a healthy person to the colon of a patient with repeat C. diff infections has been shown to successfully treat C. diff, although this procedure may not be widely available and its long-term safety has not yet been established.

How can you avoid getting it?

- Take antibiotics only as prescribed by a doctor and complete the prescribed course of treatment.
- Tell your doctor if you have been on antibiotics and get diarrhea within a few months.
- Wash your hands before eating and after using the bathroom.
- Try to use a separate bathroom if you have diarrhea, or be sure the bathroom is cleaned well if someone with diarrhea has used it.

For more information, see the CDC’s website at https://www.cdc.gov/hai/organisms/cdiff/cdiff_infect.html