



## UNDERSTANDING C. DIFFICILE

### Overview

*Clostridium difficile* (*C. difficile*) is a common bacterium that occurs naturally in some people. *C. difficile* can grow and release toxins that can damage the large bowel and cause diarrhea. These bacteria can also cause more serious inflammation in the large bowel called "pseudomembranous colitis" which can lead to more severe diarrhea and bleeding from the bowel. Very rarely severe colitis can lead to death because of perforation of the large bowel.

Those at risk include the elderly, people treated for cancer with chemotherapy, and those taking anti-secretory drugs. People taking antibiotics, especially those in an intensive care unit, are also at increased risk of infection from *C. difficile*. This is because using antibiotics alters the normal levels of good bacteria found in our bodies. When there are fewer good bacteria in our intestines and colon, *C. difficile* has the chance to thrive and produce toxins that affect our good health.

In the industrialized world, *C. difficile* is one of the most common diarrheal infections in hospitals and long-term care facilities. Within Canada, persons aged 60 - 90 years are most at risk of death from *C. difficile* infections. The strain of *C. difficile* called NAP1 causes death in less than 40% of infected patients. Fortunately the NAP1 strain is not common in North America. All other strains of *C. difficile* lead to death in less than 6% of infected patients. Today,

approximately 75% of Canadian health care facilities have specific infection control guidelines pertaining to *C. difficile* to help control the spread of infection.

### Symptoms

The most common symptom the *C. difficile* infection causes is watery diarrhea. Diarrhea can lead to very serious complications, including dehydration. Other symptoms of the disease that occur when colitis develops may include fever, loss of appetite, nausea, and abdominal pain or tenderness.

### What causes *C. difficile*?

*C. difficile* bacteria are found in feces. Infection caused by *C. difficile* can spread when individuals come into contact with objects such as clothing, toilets, bedpans and eating utensils that are contaminated with these bacteria. When someone uses their hands to touch surfaces contaminated with feces, and then touches their mouths or eyes, they may become infected.

### How do we prevent the spread of infection?

**Wash your hands:** As with most and infectious diseases, cleaning your hands is the most important way to protect

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yourself — and others — from contracting or spreading *C. difficile* infections. People working at or visiting a hospital or long-term healthcare facility should wash their hands often with an alcohol-based hand sanitizer or soap and water, especially after using the toilet. At home or in the community, hands should be washed for at least 15 seconds after using the toilet or touching dirty surfaces and before eating or preparing meals.

**Keep things clean:** When clothing has become heavily soiled with feces, the feces must be rinsed off then wash separately in a hot water cycle with soap and then dried in a dryer on high heat. Dishes and utensils should be cleaned using a dishwasher or by hand using warm soap and water.

**Take antibiotics as prescribed:** When prescribed antibiotics, follow your doctor or healthcare provider's instructions and the directions on the label. Keep taking the antibiotics as long as your doctor or healthcare provider recommends and all of the medicine is gone to kill all of the bacteria.

### Tests & Diagnosis

People who have symptoms of *C. difficile*, will be asked for a sample of the watery stool. A laboratory will test the stool to see if *C. difficile* toxins are present. If the test is positive, recommendations for treatment will be given by the doctor.

### How is *C. difficile* treated?

Treatment depends on how the severity of illness. People with mild symptoms may not need treatment. However, for severe cases, medication and surgical intervention may be required. It is important not to use any over the counter medications from the drugstore that will stop diarrhea (e.g. Imodium) and to contact a doctor if diarrhea persists or comes back.

People contracting *C. difficile* in the hospital will be put on medication until they are free from diarrhea for at least two days. As with all prescriptions, it is very important that medication be taken as prescribed by the doctor and that all antibiotics be taken — not just until symptoms disappear.

### Related Federal and Provincial Links :

It is important to understand the potentially serious effects of an infection caused by *C. difficile*. Our provincial and federal governments have additional information available at the links below.

#### Health Canada:

[http://www.hc-sc.gc.ca/hl-vs/alt\\_formats/pacrb-dgapcr/pdf/iyh-vsv/diseases-maladies/cdifficile-eng.pdf](http://www.hc-sc.gc.ca/hl-vs/alt_formats/pacrb-dgapcr/pdf/iyh-vsv/diseases-maladies/cdifficile-eng.pdf)

#### Public Health Agency of Canada :

<http://www.phac-aspc.gc.ca/id-mi/cdiff-eng.php>

#### Ministry of Health and Long Term Care (Ontario) :

[http://www.health.gov.on.ca/patient\\_safety/public/cdad/cdad\\_pub.html](http://www.health.gov.on.ca/patient_safety/public/cdad/cdad_pub.html)

#### Vancouver Island Health Authority

[http://www.viha.ca/NR/rdonlyres/E5F58346-ED1D-4957-806C-751CC24F0343/0/fs\\_c\\_difficile\\_outbreak\\_nrgh.pdf](http://www.viha.ca/NR/rdonlyres/E5F58346-ED1D-4957-806C-751CC24F0343/0/fs_c_difficile_outbreak_nrgh.pdf)

#### Alberta:

<http://www.health.alberta.ca/documents/Guidelines-Clostridium-difficile-Associated-2011.pdf>

#### Ontario:

[http://www.health.gov.on.ca/patient\\_safety/pro/cdad/pro\\_resource/guide\\_cdi\\_infect\\_control.pdf](http://www.health.gov.on.ca/patient_safety/pro/cdad/pro_resource/guide_cdi_infect_control.pdf)

#### Manitoba:

<http://www.gov.mb.ca/health/publichealth/cdc/protocol/cdifficile.pdf>

#### British Columbia:

[http://www.bcguidelines.ca/guideline\\_diarrhea.html](http://www.bcguidelines.ca/guideline_diarrhea.html)

#### Nova Scotia:

[http://ipc.gov.ns.ca/sites/default/files/Frequently%20Asked%20Questions%20C.%20diff\\_1%20doc\\_0.pdf](http://ipc.gov.ns.ca/sites/default/files/Frequently%20Asked%20Questions%20C.%20diff_1%20doc_0.pdf)

### More information

For more information about protecting and enhancing your digestive health, please visit [www.CDHF.ca](http://www.CDHF.ca)

# DONATE

# ABOUT US

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- I have enclosed a cheque for \$ \_\_\_\_\_
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- Please send me information about protecting and improving my digestive health.

Over 20 million Canadians suffer from digestive disorders every year. The Canadian Digestive Health Foundation believes this is unnecessary and unacceptable.

We reduce suffering and improve quality of life by empowering Canadians with trusted, up to date, science-based information about digestive health and disease.

As the Foundation of the Canadian Association of Gastroenterology, we work directly with leading physicians, scientists, and other health care professionals to help you understand and take control of your digestive health with confidence and optimism.

Through research and public education, we aim to:

 <p><b>REDUCE</b> the incidence and prevalence of digestive disorders</p>	 <p><b>IMPROVE</b> understanding of digestive health issues</p>
 <p><b>SUPPORT</b> those suffering from digestive disorders</p>	 <p><b>ENHANCE</b> quality of life for those living with digestive disorders</p>

## Request for support

The Canadian Digestive Health Foundation is a national charity governed by a volunteer board of directors. We rely on donations from the public and the generosity of our partners to develop and deliver our programs. Please consider including our Foundation as one of your chosen charities.

## Contact us/Donate to

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