

CONDITON: Clostridium difficile (c-diff)

What is it: Clostridium difficile often called C. difficile or C. diff, is a bacterium that can cause symptoms ranging from diarrhea to life-threatening inflammation of the colon.

Who is at risk: Illness from C. difficile most commonly affects older adults in hospitals/long-term care facilities and typically occurs after use of antibiotic medications. However, studies show increasing rates of C. difficile infection among people traditionally not considered high risk, such as younger and healthy individuals without a history of antibiotic use or exposure to health care facilities.

Cause: C. difficile bacteria are found throughout the environment in soil, air, water, human and animal feces, and food products, such as processed meats. A small number of healthy people naturally carry the bacteria in their large intestine and don't have ill effects from the infection. C. difficile infection is most commonly associated with health care and recent antibiotic use, occurring in hospitals and other health care facilities where a much higher percentage of people carry the bacteria. However, studies show increasing rates of community-associated C. difficile infection, which occurs among populations traditionally not considered high risk, such as children and people without a history of antibiotic use or recent hospitalization. When you take an antibiotic to treat an infection, these drugs tend to destroy some of the normal, helpful bacteria in addition to the bacteria causing the infection. Without enough healthy bacteria to keep it in check, C. difficile can quickly grow out of control. The antibiotics that most often lead to C. difficile infections include fluoroquinolones, cephalosporins, penicillins and clindamycin.

Emergence of a new strain-An aggressive strain of C. difficile has emerged that produces far more toxins than other strains do. The new strain may be more resistant to certain medications and has shown up in people who haven't been in the hospital or taken antibiotics. This strain of C. difficile has caused several outbreaks of illness since 2000.

Symptoms: Watery diarrhea three or more times a day for two or more days, mild abdominal cramping and tenderness. **Severe infection:** dehydration, C. difficile causes the colon to become inflamed (colitis) and sometimes may form patches of raw tissue that can bleed or produce pus (pseudomembranous colitis), watery diarrhea 10 to 15 times a day, abdominal cramping, pain, rapid heart rate, fever, blood or pus in the stool, nausea, loss of appetite, weight loss, swollen abdomen, kidney failure, and increased white blood cell count.

Diagnosis: Stool tests, colon examination, and imaging tests.

Complications: Dehydration, kidney failure, toxic megacolon (in this rare condition, your colon is unable to expel gas and stool, causing it to become greatly distended (megacolon). Left untreated, your colon may rupture, causing bacteria from the colon to enter your abdominal cavity. An enlarged or ruptured colon requires emergency surgery and may be fatal), bowel perforation, and death.

Treatment: The first step in treating C. difficile is to stop taking the antibiotic that triggered the infection, when possible. Depending on the severity of your infection, treatment may include:

Antibiotics. Ironically, the standard treatment for C. difficile is another antibiotic. These antibiotics keep C. difficile from growing, which in turn treats diarrhea and other complications. **Surgery.** For people with severe pain, organ failure, toxic megacolon or inflammation of the lining of the abdominal wall, surgery to remove the diseased portion of the colon may be the only option.

Did you know? Your intestines contain about 100 trillion bacterial cells and up to 2,000 different kinds of bacteria, many of which help protect your body from infection.