

Clostridium difficile (C-diff)

Diarrhea is a common side effect of antibiotic treatment. Most commonly diarrhea is simply a side effect of the antibiotics. However, at times the diarrhea may be due to an infection called Clostridium difficile or "C-diff." When a person takes antibiotics, normal germs in the intestine are destroyed. During this time, people can get sick from *C. difficile* picked up from contaminated surfaces, spread from a health care provider's hands, or sometimes people already have the germ in their intestines. People most at risk for this infection are older adults, people who take antibiotics, and people accessing medical care.

Symptoms

C-diff can be a serious infection. It is estimated that 14,000 deaths occur from C-diff in the U.S. each year. Common symptoms of possible infection due to c-diff include diarrhea and abdominal cramps or pain. Diarrhea is defined as 3 or more bowel movements for 2 or more days. Other symptoms may include blood or mucous in the bowel movements, fever, loss of appetite, nausea, fatigue, and dizziness. If you develop these symptoms you should call your doctor right away. Your provider can test your stool for C-diff and may start you on treatment right away.

Treatment

- 1) Stopping the antibiotic that you were receiving when the diarrhea started, if possible.
- 2) Starting a different antibiotic that treats C-diff. The primary antibiotics used to treat C-diff are metronidazole, vancomycin, or fidaxomicin.
- 3) Try to drink a lot of liquids that also have salt and sugar such as water mixed with juice, sports drinks, and soup broth.
- 4) Very rarely patients may have to have surgery to remove the infected part of the intestine.

Probiotics are considered friendly bacteria that live in the body. Right now, there is not enough proof that taking probiotic pills help prevent or treat C-diff. We do not think you should take these pills. Yogurt with active cultures has probiotics, and if you like yogurt and can digest normally, you can include this in your diet.

Antibiotic treatment of C-diff does not always cure the disease. About 20% of patients who initially respond to treatment will develop recurrent symptoms. Repeating treatment with the original antibiotic is usually successful. Some people can have multiple recurrences of C-diff associated diarrhea. If this happens, longer durations of antibiotics may be used. Transplants of stool from healthy persons into the colon have been shown to help in this situation and may be considered if other treatments are not successful.

Prevention

Hand washing with soap and water is the primary way to stop transmission of C-diff. Clean your hands often when you are hospitalized and feel free to ask your doctors, nurses, or health care providers to wash their hands if you do not see them do so. Other ways of preventing C-diff that are out of patient's control include infection control measures at hospitals and limiting antibiotics use.

If you are diagnosed with C-diff in the hospital, you will be put in contact precautions. What this means is that you will be in a private room and health care providers and visitors will put on gloves and wear a gown when they come into your room. When leaving, providers and visitors remove gown and gloves and wash their hands with soap and water. This provides an additional level of protection to prevent transmission of C-diff to other patients in the hospital.

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Prevention, continued.

Outside of the hospital, it is very unlikely to transmit this infection to people who are not taking antibiotics and have a normal immune system. Nonetheless, at home, both you and family and friends should wash your hands regularly with soap and water. If diarrhea is still present, avoid using the same toilet as other family members and you may want to clean bathroom and kitchen areas with a mixture of 1 part bleach to 10 parts water. Finally, take all of the antibiotics for C-diff prescribed by your doctor and notify your doctor if diarrhea returns.

Additional resources

http://www.shea-online.org/Assets/files/patient%20guides/NNL_C-Diff.pdf http://www.cdc.gov/HAI/organisms/cdiff/Cdiff_infect.html