

## **Clostridium difficile (C dif)**

### **Definition**

Clostridium difficile or C dif is a bacterium that causes diarrhea or colitis. C dif can produce a toxin that causes inflammation of the intestine. Diagnosis depends upon identifying the toxin in a stool sample.

### **Symptoms**

- Watery diarrhea
- Nausea
- Poor appetite
- Fever
- Abdominal pain

### **Transmission**

C dif bacteria can form spores, which are a dormant form of the bacteria that are very hardy and difficult to kill. The spores can live in the environment for months, in soil or on surfaces. When the spores are swallowed, such as after a person puts a contaminated object or hand in the mouth, the bacteria start to grow in the intestine.

Many people carry some of these bacteria in their intestine without any signs of illness. The people most likely to get sick from C dif are those with recent antibiotic use or those who are medically fragile.

When C dif is found in the intestine of a healthy person, it is kept in check by the other bacteria that live in there too. When a person takes antibiotics, some of the normal bacteria in the stool are killed, making it easier for C dif to grow.

Precautions to prevent spread include strict hand washing with soap and water for at least 20 seconds, especially after using the toilet and before eating. Surfaces can be cleaned with bleach. Alcohol –based hand cleaners do not kill C dif.

### **Treatment**

When related to antibiotic use, C dif may resolve on its own or be treated with other particular antibiotics to kill it. Usually, these are given orally. If the condition is severe, IV (intravenous) medicines may be necessary.

### **Prevention**

In addition to cleaning hands and surfaces, daily use of probiotics may help prevent C dif. Probiotics are oral supplements containing the beneficial bacterial normally found in the intestine. When a person's intestine has plenty of beneficial bacteria, it is harder for the C dif to grow.