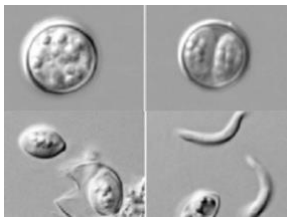
# CCU DISEASE HUNTERS

## *CYCLOSPORA*

The following information was taken from the CDC website:

### Overview



Cyclosporiasis is an intestinal illness caused by the microscopic parasite *Cyclospora cayetanensis, also known as Cyclospora*. People can become infected by consuming food or water that contains the parasite. Cyclosporiasis is not usually life-threatening.

### Signs and symptoms

People experience symptoms of cyclosporiasis about one week (ranging as soon as 2 days – 2 weeks or more) after consuming food or drinking water containing *Cyclospora*. Some people who are infected, particularly people from areas where cyclosporiasis is endemic (regularly occurring within an area or region), may not have any symptoms.

Symptoms of cyclosporiasis may include

- Watery diarrhea (most common)
- Loss of appetite
- Weight loss
- Cramping
- Bloating
- Increased gas
- Nausea
- Fatigue

Less common symptoms may include

- Vomiting
- Body aches
- Headache
- Low-grade fever
- Other flu-like symptoms

Without treatment, symptoms can last anywhere from a few days to a month or longer. Some symptoms, such as diarrhea, may go away and then return. Other symptoms, such as fatigue, may continue after the gastrointestinal symptoms have stopped.

## Timing

The time between becoming infected and becoming sick is usually about one week but can range from 2 days – 2 weeks or more.

## People at risk

People may be at an increased risk for infection when living or traveling in tropical or subtropical regions of the world where cyclosporiasis is endemic (regularly occurring within an area or region).

In the US, outbreaks of cyclosporiasis have been linked to various types of fresh produce. People can get infected with *Cyclospora* more than once.

## How it spreads

*Cyclospora* spreads when people eat food or drink water that was contaminated with feces (stool).

It takes at least 1 – 2 weeks in the environment (outside the body) for *Cyclospora* to become infectious after passing in a bowel movement. Therefore, direct person-to-person transmission is unlikely.

## Prevention

People can take the following steps to prevent *Cyclospora* infection:

- Avoid consuming food or water that may be contaminated with feces.
- Follow food safety handling recommendations for safe preparation and storage.

**Keep Reading:** Preventing Cyclosporiasis

## Diagnosis

Your healthcare provider can diagnose cyclosporiasis by testing a sample of your stool (poop).

Laboratory tests can have a hard time detecting *Cyclospora* even when patients have symptoms. Patients may have to submit several stool samples on different days to detect *Cyclospora*. Identification of *Cyclospora* requires special laboratory tests that are not part of routine stool testing. If your doctor thinks you may have cyclosporiasis, they should specifically request testing for *Cyclospora*.

## Treatment

If you are experiencing symptoms of *Cyclospora* infection, please see your healthcare provider. Cyclosporiasis is treated with trimethoprim-sulfamethoxazole, sold as Bactrim,* Septra,* or Cotrim.* If you are allergic to sulfa drugs, talk to your healthcare provider about other potential options. Resting and drinking plenty of fluids is also important for those experiencing diarrhea.

*Most people with healthy immune systems will eventually recover from cyclosporiasis without treatment. However, if not treated, you may be sick for anywhere from a few days to a month or longer. You may also have symptoms that seem to go away, but then return one or more times (relapse). People in poor health or those who are immunocompromised may be at a higher risk for severe or long illness.*

**Use of trade names is for identification only and does not imply endorsement by the Public Health Service or by the U.S. Department of Health and Human Services.*

**Keep Reading:** Clinical Care of Cyclosporiasis

## CCU Disease Hunter Screen information

Undergraduate students at Coastal Carolina University working with Dr Paul E. Richardson have developed a genomic based test to detect the bacteria *Cyclospora* using primer specific for two genes in *Cyclospora*; 5.85s RNA and 16s rRNA. Primers were identified from literature that were specific for *Cyclospora*. In the lab the students refined the method using polymerase chain reaction to amplify small genetic sequences to identify the bacteria based on specific size DNA fragments. Water samples were collected, and DNA was isolated from the samples and screened for *Cyclospora*. If a band of the expected size was present, that was called a positive result.

**Please Note:** This test only detects the presence of the disease in water. At this time, we are studying the factors that are responsible for its presence and what level of bacteria is needed to cause disease. This is a research project and not a clinical test. **This test CANNOT determine if there is a threat to the community**, it only determines the presence of the disease in a community. More work must be done before we can make those statements.

If you have any questions, please contact: **Dr Paul E. Richardson** prichar@coastal.edu
**Research Website:** https://professorrichardsonresearch.com/