

## Cyclosporiasis

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Cyclosporiasis is a gastrointestinal illness characterized by self-limiting but profuse, watery diarrhea that can persist intermittently for weeks. The diarrhea usually is accompanied by fatigue, loss of appetite, and weight loss. Other common symptoms include abdominal bloating or cramps, nausea, and low-grade fever.

The causative agent is *Cyclospora cayatanensis*, a coccidian parasite that was first identified as a cause of human illness in 1977 in Papua New Guinea. Because it has only recently been characterized and identified as a human pathogen, the organism's natural ecology, infective dose, and host range are unknown. Transmission is by ingestion of infective oocysts, which invade the small intestine and produce symptoms after a median incubation of seven days. Unlike cryptosporidiosis, another coccidian infection, cyclosporiasis probably is not spread by direct person-to-person contact, because the organism is not immediately infective when it is excreted in the feces. *Cyclospora* must remain in a warm, moist environment for days to weeks before the oocysts sporulate into their infective form. Preliminary evidence from a Maryland outbreak of cyclosporiasis that was associated with a basil pesto suggest that food preparers may play a role in transmission if the food is not eaten until several days after preparation.

Diagnosis is by identification of the oocysts in stool, most commonly using a modified acid-fast technique. Because *Cyclospora* oocysts can be extremely difficult to distinguish from artifacts, the state of Florida requires that all cases be confirmed by the state central laboratory in Jacksonville. Treatment with trimethoprim-sulfamethoxazole (Bactrim or Septra) shortens the duration of symptoms and speeds clearance of the oocysts from stool.

Until recently, cyclosporiasis was seen in the United States primarily in travelers to developing countries, where the organism is endemic and appears to follow a seasonal cycle, with cases in the Northern Hemisphere concentrated in the summer months. In 1996, a North American outbreak resulted in more than 1,400 cases in 20 states and two Canadian provinces; Florida recorded 192 laboratory-confirmed cases during this outbreak and traced the source to raspberries imported from Guatemala. A smaller outbreak in 1997 in Florida was associated with mixed salad greens that may have been imported from Chile.

## References

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