



# DuPage County Health Department R E V I E W

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111 North County Farm Road  
Wheaton, IL 60187  
(630) 682-7400  
www.dupagehealth.org

Linda Kurzawa  
President, Board of Health

Karen Ayala, MPH  
Executive Director

Rashmi Chugh, MD, MPH  
Medical Officer

## General Information

Communicable Disease  
and Epidemiology  
(630) 221-7553

Environmental Health  
(630) 682-7400

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(630) 682-7400

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Transmitted Diseases  
(630) 221-7553

HIV/AIDS  
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(630) 221-7522

School Health  
(630) 221-7300

Travel Clinic  
(630) 682-7400

Animal Services  
(630) 407-2800

Please contact  
Communicable Disease  
and Epidemiology at  
(630) 221-7553  
with suggestions  
or to be added to the  
distribution list.

The purpose of this two-page surveillance update is to promote the control and prevention of **communicable disease (CD)** by providing clinically relevant information and resources to healthcare professionals in DuPage County.



## Under the Microscope Cyclosporiasis

For questions or to report suspect or known cases of *Cyclospora* infection, please call the DuPage County Health Department at (630) 221-7553.

**Cyclosporiasis is an intestinal illness caused by the microscopic parasite *Cyclospora cayetanensis*.** People can become infected with *Cyclospora* by consuming food or water contaminated with the parasite. People living or traveling in countries where cyclosporiasis is endemic may be at increased risk for infection.<sup>1</sup>

As of July 30, 2018, the Illinois Department of Public Health (IDPH) has received reports of **over 500 cases of cyclosporiasis in counties across Illinois, including DuPage County (see graph)**, with people becoming ill starting in mid-May 2018. Over 200 Illinois cases reported eating salads from McDonald's in the days before becoming ill. Over 100 Illinois cases are linked to a private event held at the Evanston Golf Club. IDPH and local health departments continue to investigate additional sources.<sup>2</sup>

*Cyclospora* infection is transmitted by ingesting infective *Cyclospora* oocysts (e.g., in contaminated food or water). **Foodborne outbreaks of cyclosporiasis in the U.S. have been linked to various types of imported fresh produce, including raspberries, basil, snow peas, mesclun lettuce, and cilantro.**<sup>3,4</sup> *Cyclospora cayetanensis* completes its life cycle in humans. However, the oocysts shed in the feces of infected persons must mature (i.e., sporulate) outside the host, in the environment, to become infective for someone else. Therefore, **direct person-to-person (fecal-oral) transmission of *Cyclospora* is unlikely.**<sup>3</sup>

Some infected persons are asymptomatic; among symptomatic persons, the **incubation period averages ~1 week** (ranges from ~2–14 or more days). *Cyclospora* infects the small intestine and typically causes **watery diarrhea with frequent, sometimes explosive, stools.** Other common symptoms include loss of appetite, weight loss, abdominal cramping/bloating, increased flatus, nausea, and prolonged fatigue. Although cyclosporiasis usually is not life threatening, reported complications have included malabsorption, cholecystitis, and reactive arthritis.<sup>3</sup>

**Clinicians should consider *Cyclospora* as a potential cause of prolonged diarrheal illness,** particularly in patients with a history of recent travel to *Cyclospora*-endemic areas, such as tropical and subtropical regions. **Testing for *Cyclospora* is not routinely conducted in most U.S. laboratories,** even when stool is tested for parasites. Similarly, not all gastrointestinal polymerase chain reaction (PCR) panels include a target for *Cyclospora*. Therefore, if indicated, **clinicians should specifically request testing for *Cyclospora*.**<sup>5</sup>

*Cyclospora* infection is diagnosed by examining stool specimens. **Diagnosis can be difficult in part because even patients who are symptomatic might not shed enough oocysts in their stool to be readily detectable** by laboratory examinations. Therefore, patients might need to submit **several specimens collected on different days.** In addition, the laboratory should use sensitive recovery methods (concentration procedures) and detection methods that highlight *Cyclospora* oocysts. Molecular diagnostic methods, such as PCR analysis, are used to look for the parasite's DNA in the stool.<sup>5</sup>

**Trimethoprim-sulfamethoxazole (TMP-SMX),** also identified by trade names of Bactrim, Septra, or Cotrim, is the **treatment of choice.** The typical regimen for immunocompetent adults is **TMP 160 mg plus SMX 800 mg (one double-strength tablet), orally, twice a day, for 7–10 days.** HIV-infected patients may need longer courses of therapy.<sup>6</sup>

**No highly effective alternatives have been identified yet for persons who are allergic to (or are intolerant of) TMP-SMX.** Approaches to consider for such persons include observation and symptomatic treatment or desensitization to TMP-SMX. The latter approach should be considered only for selected patients who require treatment, have been evaluated by an allergist, and do not have a life-threatening allergy. Since TMP-SMX is in **pregnancy category C,** it should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus. TMP-SMX should be avoided near-term because of the potential for hyperbilirubinemia and kernicterus in the newborn.<sup>6</sup>

Based on the currently available information about how *Cyclospora* infection is spread, **avoiding food and water that may be contaminated with stool probably is the best way to prevent infection.** In addition, **produce should be washed thoroughly** before it is eaten. Wash hands with soap and warm water before and after handling or preparing fruits and vegetables. Persons who have previously been infected with *Cyclospora* can become infected again.<sup>2,7</sup>

### References:

1. www.cdc.gov/parasites/cyclosporiasis/index.html
2. http://dph.illinois.gov/topics-services/diseases-and-conditions/diseases-a-z-list/cyclospora
3. www.cdc.gov/parasites/cyclosporiasis/health\_professionals/index.html
4. www.cdc.gov/parasites/cyclosporiasis/outbreaks/index.html
5. www.cdc.gov/parasites/cyclosporiasis/health\_professionals/dx.html
6. www.cdc.gov/parasites/cyclosporiasis/health\_professionals/tx.html
7. www.cdc.gov/parasites/cyclosporiasis/prevent.html



