

Occupational Health - Zoonotic Disease Fact Sheets

BALANTIDIASIS

KEY FACTS:

- *Balantidium coli* is the largest protozoan and the only ciliated parasite that infects humans.
- Pigs, nonhuman primates, rodents, sheep, and horses are all reservoirs, but the main reservoir relevant to humans is pigs.

SPECIES: Nonhuman primates and swine

CAUSATIVE AGENT: *Balantidium coli*, a large ciliated protozoan parasite.

TRANSMISSION: Balantidiasis is transmitted through the fecal-oral route. Humans can become infected by eating or drinking contaminated food or water that has come into contact with infected animal or human fecal matter.

DISEASE IN ANIMALS: Many infections are asymptomatic and do not need to be treated. Chronic recurrent diarrhea, alternating with constipation, is most common, but severe dysentery with bloody mucoid stools, tenesmus, and colic may occur intermittently.

DISEASE IN HUMANS: Most people experience no symptoms. It infects the large intestine in humans and produces infective microscopic cysts that are passed in the feces. People who are immune-compromised are the most likely to experience signs and symptoms such as: persistent diarrhea, dysentery, abdominal pain, weight loss, nausea, and vomiting. If left untreated, perforation of the colon can occur.

DIAGNOSIS: Can be diagnosed by microscopically examining stool samples searching for cysts or trophozoites. You can also perform a colonoscopy or sigmoidoscopy to visually examine the intestinal lining and to obtain a biopsy from the large intestines. *Please review current literature before prescribing diagnostic testing as recommendations may have changed.*

TREATMENT: The three medications often used are tetracycline, metronidazole, and iodoquinol. *Please consult your physician for treatment as recommendations may have changed.*

PREVENTION/CONTROL: Practice good sanitation and personal hygiene in swine colonies. Protect water and food from fecal contamination. To prevent and control unintended infections, use uninfected animals for research, and isolate any animals used in clinical trials. Additionally, only conduct projects in laboratories with proper engineering controls and train staff members in the proper use of required personal protective equipment when they are in spaces containing live agent.

More information on balantidiasis can be found on the Centers for Disease Control and Prevention website at: <https://www.cdc.gov/parasites/balantidium/index.html>