

Food Safety Hazard: *Yersinia enterocolitica*



Characteristics/description

Y. enterocolitica belongs to a family of rod-shaped bacteria. Other pathogenic species in this family include *Y. pseudotuberculosis* and *Y. pestis* which causes plague. Only a few strains of *Y. enterocolitica* cause illness in humans.

Source

The major animal reservoir for *Y. enterocolitica* strains that cause human illness is pigs, but other strains are found in many other animals including rodents, rabbits, sheep, cattle, horses, dogs and cats. In pigs, the bacteria are most likely to be found on the tonsils. Human infection is most often acquired by eating contaminated food, especially raw or undercooked pork products. The preparation of raw pork intestines (chitlins/chitterlings) may be particularly risky. Exposure to contaminated environments and animals (pig farms) may also be risk factors for infection.

Risk reduction strategies

- Avoid eating raw or undercooked pork and prepare food using hygienic methods to limit contamination of other foods.

Effects on humans

Right-sided abdominal pain, diarrhea and fever may be the predominant symptoms, which may be confused with appendicitis.

Incubation

Symptoms typically develop 4-7 days after exposure and may last 1-3 weeks or longer.

Treatment for patients

Infections appear most often in children. Uncomplicated cases of diarrhea due to *Y. enterocolitica* usually resolve on their own without antibiotic treatment. However, in more severe or complicated infections, antibiotics such as aminoglycosides, doxycycline, trimethoprim-sulfamethoxazole or fluoroquinolones may be useful.

Key links

Food and Agriculture Organization: "Meat Processing Hygiene for Small and Medium Producers,"
<http://www.fao.org/docrep/010/ai407e/ai407e25.htm>

FDA- Bad Bug Book: *Yersinia enterocolitica* (page 18)

<https://www.fda.gov/downloads/food/foodsafety/foodborneillness/foodborneillnessfoodbornepathogensnaturaltoxins/badbugbook/ucm297627.pdf>