
Yersiniosis

This fact sheet is for informational purposes only. It is not intended to take the place of medical advice, diagnosis or treatment. Always talk to a health care professional about any health concerns you have, and before you make any changes to your diet, lifestyle or treatment.

What is yersiniosis?

Yersiniosis (yer-sin-ee-o-sis) is a disease caused by bacteria called *Yersinia*. Although many species of *Yersinia* are found worldwide, most human illnesses are caused by *Yersinia enterocolitica*. Other species of *Yersinia* affecting humans are *Y. pseudotuberculosis*, which causes an illness similar to *Y. enterocolitica*, and *Y. pestis* which causes plague. *Yersinia* are hardy bacteria that can survive in adverse conditions like refrigeration and environments low in oxygen.

The most common source of *Y. enterocolitica* infection in humans is pork (raw or undercooked) and pigs are considered the main carrier. Other strains of *Yersinia* are also found in many other animals including rodents, rabbits, sheep, cattle, horses, dogs and cats.

How common is yersiniosis?

In Ontario during 2003-2009, there was an average of two to three confirmed cases of yersiniosis reported per 100,000 persons each year.¹ Infants and young children account for about two thirds of all yersiniosis cases. Infection is more common in the winter compared to other seasons.

What are the symptoms of yersiniosis?

Persons infected with *Yersinia* can have a variety of symptoms depending on the age of the person infected.

Common symptoms in children are:

- fever
- abdominal pain, and
- diarrhea (which is often bloody)

In older children and adults, the most common symptoms are:

- right-sided abdominal pain, and
- fever

Complications such as skin rash, joint pains or spread of bacteria to the blood stream can occur in a small number of cases.

Symptoms of yersiniosis generally begin three to seven days (usually under 10 days) after a person becomes infected and last approximately one to three weeks, although occasionally symptoms may last longer.

If you have any signs and symptoms of illness, and you have had exposure to possible sources of *Yersinia* bacteria, contact your physician.

How is yersiniosis spread?

Yersiniosis is usually associated with consumption of food or water contaminated with *Yersinia* bacteria, or by contact with a person or animal infected with *Yersinia* bacteria.

Yersinia bacteria live in the intestines of infected persons/animals and are released with bowel movements. Raw meat of infected animals can become contaminated during slaughtering. If good

hand hygiene is not practiced after using the toilet or handling raw meat, a person with *Yersinia* bacteria can transfer the bacteria to food and objects. An infant or child can be infected if a parent or caretaker handles contaminated food and does not wash his/her hands adequately before handling the infant or child and their food, bottles, pacifiers or toys.

You can also become infected by:

- eating contaminated food, especially raw or undercooked pork products
- ingesting [contaminated drinking or recreational water](#)
- consuming contaminated unpasteurized milk or unpasteurized milk products, or
- putting something in your mouth that has come into contact with the droppings of infected animals or stool of infected humans
- children can become infected if they put their hand in their mouth after or during playing with infected puppies and kittens.

How is yersiniosis diagnosed and treated?

Yersiniosis is usually diagnosed by detecting the *Yersinia* bacteria in the stool. The organism can also be detected in specimens from other body sites.

Most people who have healthy immune systems will recover without treatment. Treatment of yersiniosis usually involves treating the symptoms only. For example, persons with diarrhea should generally drink lots of liquids to avoid dehydration. More severe or complicated cases may require antibiotics.

If you think you have yersiniosis you should see your doctor for testing, advice and treatment.

How can you prevent yersiniosis?

The most important preventive measure is good hygiene.

Practice good [hand hygiene](#). Wash your hands with soap and water:

- before eating and handling food
- after touching raw meat
- after handling raw pork/chitterlings

- after using the toilet
- after assisting others with the toilet
- after changing diapers
- after caring for a person who has diarrhea
- after contact with animals (if your dog or cat has diarrhea, wash your hands frequently as you care for it), and
- after visiting a petting zoo (wash children's hands after visiting a petting zoo).

[Cook](#) all meat thoroughly.

Consume only milk or milk products that have been pasteurized.

[Handle food safely](#): use separate cutting boards for raw meat and ready to eat food. Clean and sanitize all cutting boards, countertops and utensils after preparing raw meat.

Protect drinking and recreational water supplies from animal and human feces.

Avoid drinking water from shallow wells, rivers, lakes or streams. Only drink water that you know is uncontaminated. If you are not sure, treat the water yourself, for example, by boiling for at least five minutes.

What causes yersiniosis outbreaks?

Many cases of yersiniosis are related to ingestion of raw or undercooked pork. Outbreaks have, in the past, been associated with chocolate milk, tofu and pork chitterlings (food prepared from the small intestine of pigs). Human cases have also been reported in association with disease in household pets, particularly puppies and kittens.

References

1. Ontario Ministry of Health and Long-Term Care, integrated Public Health Information System (iPHIS) database, extracted April 2010
2. Heymann. D.L. "Control of Communicable Diseases Manual". 19th Edition. 2008. American Public Health Association: Washington D.C.
3. [BC Centre for Disease Control website](#)
4. US [Centers for Disease Control and Prevention website](#)