About...Yersiniosis

What is yersiniosis?

Yersiniosis (yer-sin-ee-OH-sis) is a disease caused by *Yersinia enterocolitica* bacteria, which live in livestock and domestic animals and can be found in untreated water. Children are infected more often than adults, and the illness has a winter seasonal pattern. On average, there are 11 cases of yersiniosis reported in Indiana every year.

How is yersiniosis spread?

Yersinia bacteria are passed in the stool of animals and humans, and people can become infected by consuming food or water contaminated with *Yersinia* (fecal-oral route). The bacteria are also found in unpasteurized milk and raw or undercooked meat, particularly pork products, such as chitterlings. Infection can also occur after contact with symptomatic, infected animals.

Although rare, yersiniosis can be spread from person to person, usually as a result of poor hand hygiene after using the restroom. Transmission can occur by touching items, such as soiled diapers or linens, that are contaminated with the stool of an infected person and then touching your mouth. If untreated, infected persons can shed the bacteria in their stool for several months.

What are the symptoms of yersiniosis?

- Fever
- Abdominal pain
- Diarrhea (often bloody)
- Vomiting

Symptoms usually begin 3-7 days (up to 10 days) after exposure and last 1-3 weeks. In older children and adults, pain in the lower right side and fever can be the main symptoms and may be confused with appendicitis (infection of the appendix). Some people may also have a sore throat.

Are there complications from yersiniosis?

Most infections are uncomplicated and resolve completely. Some people may develop a skin rash on the legs and trunk called “erythema nodosum”; this occurs more commonly in women. Usually, the rash does not require treatment and goes away within a month. Joint pain, usually in the knees, ankles, or wrists, can occur in 2%-3% of cases. Joint pain usually begins about 1 month after diarrhea starts and goes away after 1 to 6 months. An infection of the bloodstream may occur in people with weakened immune systems or with too much iron in their blood. Death is extremely rare.

How do I know if I have yersiniosis?

A person having diarrhea lasting more than 24 hours should consult a health care provider. The health care provider may collect a stool, blood, or urine sample to test for *Yersinia*.

How is yersiniosis treated?

Most people recover within 5 to 7 days without medical treatment. A doctor may prescribe antibiotics for people with severe infection.

Is yersiniosis a reportable disease?

Yes. When a person is diagnosed with *Yersinia* through laboratory tests, the health care provider and laboratory must report the disease to the local health department (LHD) or the Indiana State Department

of Health (ISDH) within 72 hours. The LHD will contact all cases diagnosed with *Yersinia*, so a possible exposure can be determined to help prevent others from becoming ill.

How can yersiniosis be prevented?

In general, *Yersinia* infections can be prevented by strictly adhering to the following guidelines:

- Practice good hygiene:
    - Thoroughly wash hands with soap and water after using the restroom; after assisting someone with diarrhea and/or vomiting; after contact with animals; after swimming; before, during, and after food preparation; and after exposure to raw meat products (please refer to Quick Facts about Hand Washing).
    - Clean food preparation work surfaces, equipment, and utensils with soap and water before, during, and after food preparation, especially after contamination with raw meat products.
- Separate raw and cooked foods:
    - Avoid cross-contamination by keeping uncooked meat products separate from produce, ready-to-eat foods, and cooked foods.
    - Use separate equipment and utensils for handling raw foods.
    - Clean food-preparation work surfaces and utensils with soap and water before, during, and after food preparation, especially after contact with raw meat products.
- Maintain safe food temperatures:
    - Ensure proper temperatures are maintained during refrigeration (<40˚F), freezing (<2˚F), holding (keep food hot or at room temperature for no longer than 2 hours), and chilling (chill immediately and separate into smaller containers if needed).
    - Thoroughly cook all food items to United States Department of Agriculture (USDA) recommended safe minimum internal temperatures.
        - 160˚F – pork and pork products
- Eat safe foods (Remember: Contaminated foods may look and smell normal):
    - Do not eat undercooked pork or chitterlings (intestines of young pigs).
    - Do not eat foods past the expiration date.
    - Do not eat unpasteurized dairy products; it is illegal to sell unpasteurized dairy products in Indiana.
    - Wash all produce before eating raw or cooking.
    - Use treated water for washing, cooking, and drinking.
- Handle animals safely:
    - Wash hands after contact with livestock, petting zoos, pets, especially if they are suffering from diarrhea; and after contact with pet food/treats (including live or frozen rodents).
    - Keep pets out of food-preparation areas.
    - Do not clean pet cages in the kitchen sink or in the bathtub.
- Protect others:
    - Persons with diarrhea and/or vomiting should not prepare food or provide health care for others and should limit direct contact with others as much as possible.
    - Persons with diarrhea and/or vomiting should not attend a child-care facility or school.
    - Persons with diarrhea and/or vomiting shall be excluded from employment involving food handling (Indiana Retail Food Establishment Sanitation Requirements, 410 IAC 7-24-122).

Where can I learn more about yersiniosis?

To search Indiana data and statistics:
www.in.gov/isdh/dataandstats/disease/diseases_index.htm

To search the Indiana Food Protection Program:

www.in.gov/isdh/regsvcs/foodprot/index.htm

To search disease information:
www.cdc.gov/ncidod/dbmd/diseaseinfo/yersinia_g.htm
www.cfsan.fda.gov/~mow/chap5.html

To search for national data, statistics, and outbreaks:
www.cdc.gov/mmwr/

Updated on December 10, 2007

Indiana State
Department of Health