



## Trichinellosis

(Trichinosis)

### What is trichinellosis?

Trichinellosis is caused by eating raw or undercooked meat of animals infected with the larvae of the parasitic roundworm *Trichinella*. Infection occurs commonly in certain wild carnivorous and omnivorous animals.

### Who is at risk for trichinellosis?

Those at risk include people who eat raw or undercooked meats, particularly bear, pork, venison, wild feline (such as a cougar), fox, wolf, horse, seal or walrus.

### What are the symptoms of trichinellosis?

Gastrointestinal symptoms, such as nausea, diarrhea, vomiting, and abdominal pain, are often the first to appear with trichinellosis. Headaches, fever, chills, cough, swelling of the face and eyes, aching joints, muscle pain, itchy skin, diarrhea, or constipation may follow. In severe infections, patients may have heart and breathing problems, and may experience difficulty coordinating movements.

### How soon do symptoms appear?

Gastrointestinal symptoms usually appear one to two days after a person consumes raw or undercooked meat from an animal infected with *Trichinella*.

### How is trichinellosis spread?

Animals acquire *Trichinella* when they feed on infected rodents or meat from other infected animals. Larvae migrate to the muscles, and the disease is spread when other animals eat infected meat. Humans are infected when they consume infected meat that was not adequately cooked.

### When and for how long is a person able to spread the disease?

Trichinellosis is not spread from person-to-person.

### How is a person diagnosed?

A blood test or muscle biopsy can show if you have trichinellosis.

### What is the treatment?

Several safe and effective prescription drugs are available to treat trichinellosis. The decision to treat is based upon symptoms, exposure to raw or undercooked meat, and laboratory test results.

### Does past infection make a person immune?

No.

### Should children or others be excluded from child care, school, work or other activities if they have trichinellosis?

A child should be excluded from child care if he/she has:

- Vomited two or more times within the previous 24 hours, unless the vomiting is determined to be caused by a noninfectious condition and the child is not in danger of dehydration

- Diarrhea, if stool is not contained in the diaper or if diarrhea frequency exceeds two or more stools above normal for that child
- A fever or is unable to participate and the staff determines that they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group

A child or an adult should be excluded from school or work if diarrhea cannot be contained. An adult who prepares or handles food should be excluded from work until 24 hours after diarrhea resolves or they provide written medical documentation from a health practitioner that they are not contagious.

### **What can be done to prevent the spread of trichinellosis?**

- Cook meat to safe temperatures. A food thermometer should be used to measure the internal temperature of cooked meat. Do not sample meat until it is cooked.
  - **For Whole Cuts of Meat (excluding poultry and wild game):** Cook to at least 145°F as measured by a food thermometer placed in the thickest part of the meat, then allow the meat to rest for three minutes before carving or eating.
  - **For Ground Meat (excluding poultry and wild game):** Cook to at least 160°F.
  - **For Wild Game (whole cuts and ground):** Cook to at least 160°F.
  - **For All Poultry (whole cuts and ground):** Cook to at least 165°F, and for whole poultry allow the meat to rest for three minutes before carving or consuming.
- Curing (salting), drying, smoking, or microwaving meat alone does not consistently kill *Trichinella*; homemade jerky and sausages have been linked to cases of trichinellosis.
- Freeze pork less than six inches thick for 20 days at 5°F to kill any worms.
- Freezing wild game meats, unlike freezing pork products, may not effectively kill all worms because some work species that infect wild game animals are freeze-resistant.
- Clean meat grinder thoroughly after each use.
- To help prevent *Trichinella* infection in animal populations, do not allow pigs or wild animals to eat uncooked meat, scraps or carcasses of any animals, including rats, which may be infected with *Trichinella*.

### **Additional Information:**

For additional information, call the North Dakota Department of Health at 800.472.2180.

**This disease is a reportable condition. As mandated by North Dakota law, any incidence of this disease shall be reported to the North Dakota Department of Health.**

#### Resources:

1. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30<sup>th</sup> ed. [Children in Out-Of-Home Care]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 132-151.
2. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30<sup>th</sup> ed. [Trichinellosis]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 796-797.
3. Heymann, D. L. (2015). *Control of Communicable Diseases Manual, 20<sup>th</sup> Edition*. Trichinellosis. American Public Health Association. 2015: 623-626.
4. Centers for Disease Control and Prevention. (2012). Trichinellosis. [www.cdc.gov/parasites/trichinellosis/](http://www.cdc.gov/parasites/trichinellosis/).
5. North Dakota Administrative Code. (2016). 33-33-04-28.9-11. [www.legis.nd.gov/information/acdata/pdf/33-33-04.pdf](http://www.legis.nd.gov/information/acdata/pdf/33-33-04.pdf).