



Trichinosis in Montana Bears and Mountain Lions

What is Trichinosis?

Trichinosis, also called trichinellosis, is caused by eating raw or undercooked meat of animals infected with the larvae of a species of worm called *Trichinella*. Infection occurs commonly in certain wild carnivorous animals such as bear or cougar, or omnivorous animals such as domestic pigs or wild boar.

What are the signs and symptoms of a *Trichinella* infection?

The signs, symptoms, severity and duration of trichinellosis vary. Nausea, diarrhea, vomiting, fatigue, fever, and abdominal discomfort are often the first symptoms of trichinellosis. Headaches, fevers, chills, cough, swelling of the face and eyes, aching joints and muscle pains, itchy skin, diarrhea, or constipation may follow the first symptoms. If the infection is heavy, patients may experience difficulty coordinating movements, and have heart and breathing problems. In severe cases, death can occur. For mild to moderate infections, most symptoms subside within a few months. Fatigue, weakness, muscle pain, and diarrhea may last for months.

How does infection occur in humans and animals?

When a human or animal eats meat that contains infective *Trichinella* cysts, the acid in the stomach dissolves the hard covering of the cyst and releases the worms. The worms pass into the small intestine and, in 1-2 days, become mature. After mating, adult females lay eggs. Eggs develop into immature worms, travel through the arteries, and are transported to muscles. Within the muscles, the worms curl into a ball and encyst (become enclosed in a capsule). The life cycle repeats when meat containing these encysted worms is consumed by another human or animal.

Cooking meat to an internal temperature of 165° F will kill the parasite and remove the risk of infection for humans and their pets.

For more information on Trichinosis please visit:

http://www.cdc.gov/parasites/trichinellosis/gen_info/faqs.html

If you would like to speak with someone from Montana Fish, Wildlife & Parks Wildlife Laboratory please feel free to call 406-994-6357.

Trichinella Testing Options

As of 2015, FWP no longer offers trichinella testing for bear and lion hunters. **A negative laboratory test result does not guarantee that your bear or lion is free from infection; rather it simply means that the parasite was not detected in the sample submitted.** FWP recommends that all bear and lion meat be thoroughly cooked to an internal temperature of 165° F before consumption by humans or pets. For hunters who still desire trichinella testing, they may send a tissue sample to the Montana Department of Livestock's diagnostic lab. **The hunter is responsible for the collection, submission and fee required to complete the testing.**

PRICE: 1-4 Samples **\$80.00 per sample**
5-10 Samples **\$65.00 per sample**

Submission Instructions:

- 1.)** The sample required is a **4x5 inch piece of tongue or diaphragm**
- 2.) Refrigerate** sample, unless storage is to be greater than three days. If greater than three days, **freeze or salt** the sample.
- 3.)** Complete the **diagnostic lab submission form** (form SV43) as thoroughly as possible and send with the sample. This form can be found on the Montana Department of Livestock Diagnostic Laboratory website: <http://liv.mt.gov/lab/forms.mcp>
 - a. On the SV43 form, check the '**Parasitology**' box then check the '**Other**' box and write '**Trichinella**' in the blank.
- 4.)** Package samples in a shipping container so they DO NOT LEAK. Some packaging tips are...
 - a. Double bag sample
 - b. Use only fabricated ice packs NOT ZIPLOCS FULL OF ICE
 - c. Place enough absorbent material in the package that any fluid that leaks may be absorbed
- 5.)** Send sample AND submission form with payment to the Montana Department of Livestock Diagnostic Laboratory
 - a. **US Postal Service:**
Montana Department of Livestock Diagnostic Laboratory
PO Box 997
Bozeman, MT 59771
 - b. **FedEx or UPS:**
Montana Veterinary Diagnostic
1911 Lincoln Street
Bozeman, MT 59718

The test result will be accompanied by **the following disclaimer:**

"As with most testing procedures, false negatives can occur especially with low infection levels. Despite a negative test result, it is recommended to cook all meat thoroughly to at least 165° F. Other types of meat processing, such as smoking, do not kill *Trichinella sp* in meat."