



Brucellosis in muskoxen and caribou

What's the issue?

Brucellosis is a disease found in caribou and muskoxen and is caused by the bacterium *Brucella*. People may also be exposed to *Brucella* when butchering infected animals or eating uncooked infected meat, which can pose a risk for infection. We are testing historic and current blood samples from muskoxen and Dolphin and Union caribou to determine how common *Brucella* is.

What have we found?

Through our monitoring, we have documented that exposure to *Brucella* has **recently increased in muskoxen** on Victoria Island. In the past few years, around **one out of three** muskoxen harvested around Ulukhaktok was exposed to *Brucella*. In the Dolphin and Union caribou herd, around **one out of ten** harvested animals was exposed to the bacterium.

How to recognize brucellosis in harvested animals?

Infected animals have swollen joints and may limp. Other signs of brucellosis are swollen, bigger than usual testicles and mammary glands. In muskoxen, we can also see abscesses that will appear as yellow-white lumps in tissues or organs.

What are the signs of infection in people?

In people, signs of brucellosis are not specific. Typically, it feels like a flu, but stronger, with **fever, muscle and joint pain, tiredness, or swollen lymph nodes**. Sometimes infected people have skin lesions (rash). Signs of illness start between one week and two months after handling or eating infected meat.



Brucella lesion: Caribou with a swollen joint.



Brucella lesion: Abnormal muskox kidney. The kidney is cut in half, and we can see small yellow-white lumps (abscesses filled with *Brucella*.)

What to do if you believe that an animal you harvested has brucellosis?

- Leave the affected part (for example a leg) alone, or the whole carcass if you see abnormalities in more than one part of the body.
- Butcher the animal separately from other harvested animals.
- Wear gloves while butchering the animal.
- Never cut into swollen joints or any abnormal lumps.
- Change knife to butcher other animals after this one.
- Clean knives and other equipment in hot soapy water or bleach and water solution (2 tsp bleach in 1 L water).
- Cook the meat thoroughly if you are in doubt to internal temperature of 71°C (160°F) using a cooking thermometer.
- Don't feed any part of a suspect carcass to your dogs as they can get brucellosis too.
- Report any signs of sick wildlife to your local ENR Office or to the ENR Wildlife Veterinarian (WildlifeVeterinarian@gov.nt.ca)



Brucella lesion: Abnormal lymph nodes from the abdomen of a muskox. The lymph nodes are larger than usual and have many abscesses (white lumps).

You can also test the animal for brucellosis: bring a sample (for example: abnormal lumps found on the carcass) to the wildlife officer for testing before deciding if you want to eat the meat. Keep the suspect meat frozen and separate from other food until you get an answer.

What can you do if you suspect you have brucellosis?

Fortunately, brucellosis can be treated with medicine, but it is important to start the treatment as soon as possible.

If you are worried that you may have been exposed to an animal infected with *Brucella*, please contact your local health professional (and let them know you are worried about brucellosis).

Additional information on Brucellosis and other diseases of wildlife can be found at: https://www.enr.gov.nt.ca/sites/enr/files/field_guide_wildlife_diseases.pdf