



Brucellosis in muskoxen and caribou

What's the issue?

Brucellosis is a disease of caribou and muskoxen and is caused by the bacterium *Brucella*. People may also catch it when butchering infected animals or eating uncooked infected meat. Through our long-term, collaborative monitoring program in Cambridge Bay, Kugluktuk, and Ulukhaktok, we are testing blood samples from muskoxen and Dolphin and Union caribou to determine how common *Brucella* is.

What have we found?

We have documented that brucellosis has recently increased in muskoxen around Victoria Island and in the Kent Peninsula area. In 2020-23, about one out of five muskoxen (20%) we tested in those areas had been in contact with *Brucella*. In the Dolphin and Union caribou herd, the proportion of animals that had contact with the disease is one out of ten (10%).

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. Sometimes, we also see yellow-white nodules or lumps in tissues or organs (also called abscesses).

What are the signs of infection in people?

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



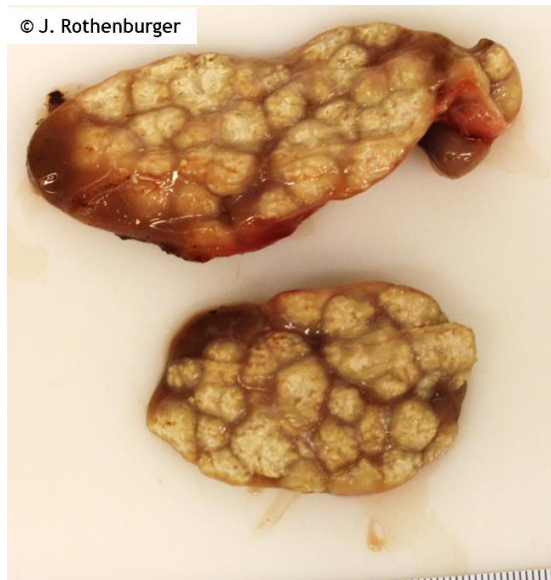
Brucella lesion: Caribou with a swollen joint.



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?

- Butcher the animal separately from other harvested animals and do it at the end.
- Wear gloves while butchering the animal.
- Remove the affected part. Never cut into the abnormal part, cut around it. If possible, bring back the abnormal part in a separate bag to the Conservation officer for testing.
- If you see more than one abnormality on the animal (for example a swollen leg joint and swollen testicles), it might be better to leave the whole carcass.
- Once you are done, clean knives and other equipment in hot soapy water or bleach and water solution (2 tsp bleach in 1 L water).
- Don't use the knives on other animals until you have cleaned them.
- Cook the meat thoroughly to an internal temperature of 71°C (160°F).
- Don't feed any part of a suspect carcass to your dogs as they can get brucellosis too.
- Report it to the Conservation officer (867 983-4164 in Cambridge Bay). If possible, bring the abnormal part, or pictures of it.



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 wait until the animal is tested before deciding if you want to eat the meat: bring a sample of any abnormal part to the Conservation officer and ask them to send it for testing. Keep the rest of the meat frozen and separated 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 are sick because you were in contact with brucellosis, please contact your local health professional (and let them know you are worried about brucellosis).

Additional information on brucellosis can be found here:

[brucellosis - fact sheet 1.pdf \(gov.nu.ca\)](#)

