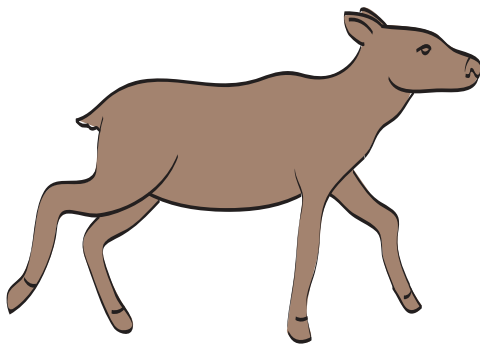




NORTHWEST TERRITORIES CONTAMINANTS FACT SHEETS

Caribou



Caribou have been a crucial part of the diets of Aboriginal peoples in the Northwest Territories for thousands of years. Caribou are an important part of their health, culture and economy. Now, people in the Northwest Territories are becoming more aware of contaminants in the environment.

This fact sheet will describe what types of contaminants are in caribou, how they get there, and what this means to the health of people who eat them.

Caribou, like many other land-based animals, are less likely to build up elevated levels of contaminants compared to marine animals.

Since caribou eat lichen they are low on the food chain. Contaminants become more concentrated when animals (predators) eat other animals (prey). This process is called biomagnification. Since caribou do not eat other animals, this helps them avoid building up elevated levels of contaminants.

Contaminant levels in an animal can slowly build up over time, if the animal continues to eat foods with contaminants. This is called bioaccumulation. Generally the younger the caribou, the lower the contaminant levels.

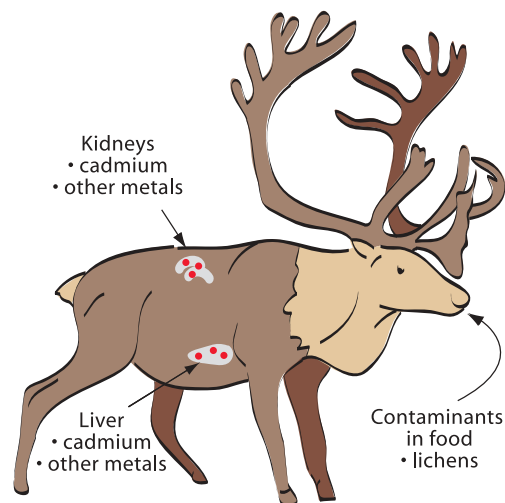
Contaminants are grouped into major types, based on whether they build up in the fat or in the organs of animals.

Contaminants such as persistent organic pollutants (POPs) (see POPs fact sheet) build up in fat, so levels are low in lean land animals such as caribou. Contaminants such as heavy metals (see heavy metals fact sheet) and radionuclides (see radionuclides fact sheet) can build up in organs of certain land animals. This is because the organs act as filters for the body.

Contaminant levels have been measured in caribou from every major herd in the Northwest Territories. Studies have found that most contaminants are present at such low levels that they are not considered health risks to caribou or to people who eat them. The only contaminant found in slightly higher levels was a heavy metal called cadmium, which concentrates in the kidneys and liver.

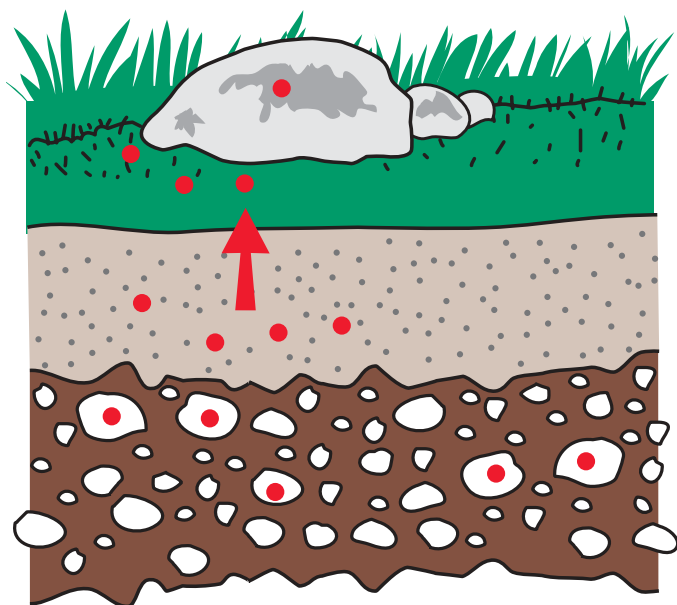
Cadmium in caribou comes from the lichen they eat.

Cadmium is naturally present in the Northwest Territories, through the weathering of rocks. But it can also come from human activities such as burning fuel and garbage. Some is also believed to come from industrial sources



• Contaminants





• Contaminants

through air currents. The lichen that caribou eat can absorb cadmium from the water or soil around it. As lichen live much longer than most plants, they can absorb cadmium over time. Since caribou eat a lot of lichen, they can build up cadmium in their organs.

Levels of some radionuclides in caribou are decreasing.

Lichen can also absorb contaminants like radionuclides. One radionuclide called cesium⁻¹³⁷, comes from nuclear weapons and power plants, and it is disappearing from the north. Levels have declined by about 10 times in caribou meat since the 1960s. Another radionuclide called polonium⁻²¹⁰ is found naturally in the environment, including caribou. Remember that the benefits of eating caribou are greater than concerns from radionuclides.

Caribou is one of the healthiest foods available!

All living things including caribou contain some contaminants, but they are still extremely healthy and nutritious.

- Caribou liver is an excellent source of nutrients, including iron, protein and vitamin A.
- Caribou meat is lean and is high in protein.
- The blood of caribou is an excellent source of iron, and a good source of protein.

Caribou is a delicious and affordable food that is good for you in many ways. Eating it helps keep people connected to the land and their cultures. Hunting for caribou helps keep people fit and healthy too.

Good News...



Caribou is safe to eat!

Concentrations of cadmium found in caribou are very low. Since it does not build up in meat, you can eat as much caribou meat as you want without worrying about contaminants. This is true for caribou from every herd in the Northwest Territories.

A health advisory has been issued about cadmium in caribou kidneys due to slightly elevated levels measured. People in the Northwest Territories should not eat more than one caribou kidney per week to reduce health risks from cadmium. Remember that this is still much less cadmium than absorbed through smoking. No health advice has been issued about eating caribou livers in the Northwest Territories based on the levels of cadmium found.

Did you know...

Smokers are exposed to 20 to 30 times more cadmium than non-smokers! Smokers could consider quitting smoking, rather than avoid eating caribou kidney, to lower their risk of cadmium exposure.

For more information please contact:

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