



# Malignant Catarrhal Fever

**Alternate Names:** MCF, malignant head catarrh, snotsiekte, catarrhal fever, gangrenous coryza.

**Species Affected:** Ruminants – especially bison, cattle, water buffalo, and deer. Sheep and wildebeest are the main carriers of the virus.

**What causes MCF?** A group of ruminant gammaherpesviruses, the two most important of which are the wildebeest and sheep viruses. The wildebeest virus (AIHV-1) is common in wild wildebeest herds in Africa. The ovine herpesvirus-2 (OvHV-2) is common in sheep flocks worldwide.

In British Columbia, deer and goat variants of the virus have also been detected.

**How is MCF transmitted?** Lambs usually get the OvHV-2 between 3 and 6 months of age from other sheep in the flock by direct contact with contaminated nose fluids or by airborne viruses. Sheep carry OvHV-2 with no signs of illness and can transmit it to susceptible ruminants such as bison, cattle, and deer. Airborne transmission from sheep to bison has been demonstrated at distances up to 5 Km.

**What are the clinical signs of MCF?** They depend on the species affected and range from sudden death in highly susceptible animals (such as bison) to a growing catarrhal syndrome (inflammation of moist membranes with excess mucus-snot) with:

- High fever
- Inactivity and decreased appetite
- Cloudy, teary eyes, worsening with time
- Nose secretions of snot, mucus, and pus
- Slobbering with inflammation of the mouth and throat
- Skin damage with ulcers and skin shedding, swollen lymph nodes
- Swollen joints and lameness
- Bloody diarrhea, bloody urine

- Neurological signs: incoordination, head pressing, shaking, increased reaction to touch, involuntary eye movements, aggressiveness, and seizures.

**What are the consequences of MCF?** Death of up to 90% of cattle, and up to 100% of water buffalo, deer, and bison. Cattle that survive MCF remain infected with the virus and may continue to have bouts of disease.

**How is MCF detected?** Based on clinical signs, herd history, and laboratory testing. PCR (Polymerase Chain Reaction, a molecular test to detect viral DNA), observation of tissue damage on dead animals, and histopathology (observation of tissues under a microscope) are used for confirmation of MCF.

**How is MCF prevented?** Biosecurity and separation of susceptible animals from infected sheep, goats, and wildebeest are the most effective methods of control. The distance needed to prevent aerosol transmission to cattle is unknown. Sheep flocks should be kept at distances greater than 1 Km from bison herds.

**How can MCF be treated?** There is no effective treatment for MCF.

**Is MCF a Reportable disease?** Because of its severity and consequences MCF is a Notifiable disease and all suspect and confirmed cases in British Columbia must be notified within 24 hours to the [Office of the Chief Veterinarian](#).

**Is MCF zoonotic (transmitted from animals to humans)?** No

#### References:

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- The World Organization for Animal Health, 2024. *Malignant Catarrhal Fever*. <https://www.oie.int/app/uploads/2021/03/malignant-catharral-fever.pdf>