



# Ovine Progressive Pneumonia

**Alternate Names:** OPP, Maedi-Visna, La Bouhite, Zwoegersiekte, Graaff-Reinet disease.

**Species Affected:** Sheep and goats.

**What causes OPP?** Maedi-Visna virus (MVV), a small ruminant lentivirus which is related to the CAE virus (caprine arthritis encephalitis) that affects goats.

**How is OPP transmitted?** MVV is present in milk, lung fluids, and manure of infected animals. Drinking infected colostrum or milk is the main mode of transmission to baby lambs and goats. Direct or indirect contact with the secretions of infected animals can also transmit MVV.

**What are the clinical signs of OPP?** Most sheep and goats infected with MVV don't show signs of disease. Signs show in adult sheep over 2 years of age. First reported in Iceland, Maedi (dyspnea or difficult breathing) is an increasing respiratory infection and Visna (wasting) a slow loss of weight. Some animals may have neurological signs such as circling, head tilting, leg weakness, and progressive paralysis of the legs. Hard inflammation of the udder (mastitis) with decreased milk production is more common in goats.

**What are the consequences of OPP?** Death due to OPP is low in animals without clinical disease but carriers of the MVV will persistently produce infected colostrum and milk thus infecting suckling lambs and kids and maintaining the MVV in the flock/herd. OPP is a welfare concern when animals with leg weakness and paralysis can't reach feed and water.

**How is OPP detected?** Based on herd history, and laboratory testing including serology (blood test to detect antibodies – a reaction of the immune system). To confirm OPP tissue samples are tested with virology (to detect the MVV), and PCR (Polymerase Chain Reaction, a molecular test to detect viral RNA)..

**How can OPP be prevented?** There are no vaccines available. Good management and biosecurity practices prevent transmission to other animals. Maintaining a closed flock/herd, or if needed, purchasing from low-risk herds and blood testing all animals before bringing them to the farm is recommended. The main way MVV is transmitted is through contaminated milk and colostrum, avoid feeding lambs and kids with pooled milk or colostrum.

**How can OPP be treated?** There is no specific treatment for OPP. Supportive care is necessary for animals with clinical disease.

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

#### References:

- Scott, P. R. (2022, January 24). *Progressive Pneumonia in Sheep and Goats*. Merck Veterinary Manual. <https://www.merckvetmanual.com/respiratory-system/respiratory-diseases-of-sheep-and-goats/progressive-pneumonia-in-sheep-and-goats>
- Spickler, Anna Rovid. 2015. Small Ruminant Lentiviruses: Maedi-Visna and Caprine Arthritis and Encephalitis. Retrieved from [https://www.cfsph.iastate.edu/Factsheets/pdfs/maedi\\_visna\\_and\\_caprine\\_arthritis\\_encephalitis.pdf](https://www.cfsph.iastate.edu/Factsheets/pdfs/maedi_visna_and_caprine_arthritis_encephalitis.pdf)