

# Vesicular Stomatitis

This disease is not present in Australia at this time.

This zoonotic viral disease is characterized by vesicles, erosions and ulcers on the mouth, feet and udder. Pain, anorexia and secondary mastitis can cause decreased productivity in all species. Vesicular stomatitis closely resembles three vesicular diseases : foot-and-mouth disease (FMD), swine vesicular disease, and vesicular exanthema of swine

Vesicular stomatitis mainly affects horses, donkeys, mules, cattle and pigs. South American camelids, sheep and goats occasionally have clinical signs. Serological evidence of infection has been found in many other animals. Humans are also susceptible.

Insect vectors seem to introduce VSV into populations of domesticated animals. Important biological vectors include sand flies and *Culicoides* midges

Broken skin or mucous membranes may facilitate entry of the virus. Infected animals shed VSV in vesicle material, saliva and to a lesser extent, in nasal secretions. VSV does not appear to be shed in milk. Animals can also be infected by exposure to contaminated fomites including food, water and milking machines. VSV in saliva can survive for 3-4 days on fomites; however, this virus is inactivated by sunlight, and does not remain viable for long periods in the environment except in cool, dark places. VSV does not appear to cross the placenta or cause foetal seroconversion.

The incubation period is usually two to eight days; however, longer or shorter incubation periods have also been reported. In contrast, lesions or fever develop in 1 to 3 days in some experimentally infected horses and swine.

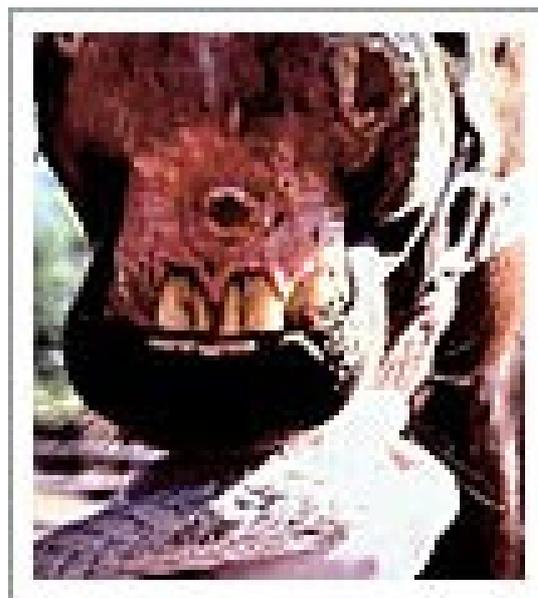
Lesions and blisters appear particularly around the mouth but may also be present on the feet, udder and prepuce. Excessive salivation is often the first symptom. Blisters vary widely in size; while some are as small as a pea, others can cover the entire surface of the tongue. They rupture to become erosions or ulcers; this may happen before any vesicles are seen. A transient fever usually develops when the lesions appear. In horses,

blisters occur most often on the upper surface of the tongue, the gums and lips, and around the nostrils and corners of the mouth. In some horses, the vesicles may go unnoticed and the disease may appear as crusting scabs on the muzzle and lips. . In addition to the oral ulcers, horses may develop lesions on the teats or prepuce, and on the coronary band and interdigital spaces of the hooves. The predominant sites of lesions can vary in different outbreaks.

Vesicular stomatitis lesions are painful and can cause anorexia, refusal to drink, and lameness. In some cases, the epithelium of the tongue or muzzle may slough, and the nostrils and muzzle may swell. Some animals can have a catarrhal nasal discharge, bleeding from ulcers, or a fetid mouth odour.

Weight loss may be severe, and milk production can drop. Unless secondary bacterial infections or other complications develop, animals recover in approximately two to three weeks. However, if recovering animals are transported, the stress may cause new lesions to develop. Subclinical infections are also seen.

In horses the virus can be present in and can be transmitted in semen.



Blisters and Lesions from VSV