



Californian Myxomatosis

Myxomatosis is a severe viral disease of pet rabbits and other European rabbits. It is caused by the myxoma virus, a pox virus carried by wild cottontail brush rabbits.

There are a number of different strains of myxoma virus, and they vary in how harmful (pathogenic) they are. The South American strains introduced to Europe and Australia have become less harmful over the years, and rabbits affected with these strains can survive. Unfortunately, the California strain of myxoma virus is highly pathogenic, with reported fatality rates of over 99%. The California strain occurs in Baja, Mexico and along the western coasts of California and Oregon. Currently, there is no vaccine for Californian myxomatosis.

What are the symptoms of Californian myxomatosis?

Infections with the California myxoma virus have a somewhat varied course. Some rabbits die suddenly and without warning, displaying no outward symptoms. Others develop swelling of the eyelids, ears, and lips, which gives the rabbit a “sleepy” look. Affected rabbits also have swollen genitals and a high fever. Rabbits that survive this stage go on to develop discharge from the eyes and nose, and labored breathing. Late in the course of the disease rabbits stop eating and their body temperature drops, and seizures may occur. Most rabbits die within a few days of the initial symptoms, while a few live up to two weeks. They do not develop the lumps and nodules seen in rabbits infected with South American myxoma virus.

The photographs accompanying this article show rabbits with myxomatosis. Note the characteristically swollen eyelids, ears, and genitals.

How is myxomatosis spread?

In California the myxoma virus is primarily spread by mosquitoes, but can be spread by any biting insect, including fleas, mites, lice, and blackflies. It can also be spread by direct contact, and by contact with contaminated items such as hands, food bowls, and cages. The time between exposure and the onset of symptoms is up to two weeks.

How is myxomatosis diagnosed?

Veterinarians familiar with myxomatosis can often make a presumptive diagnosis following a complete examination. In other cases, or when a definitive diagnosis is sought, PCR tests and biopsies are needed.

Can myxomatosis be treated?

There are unfortunately no specific treatments for myxomatosis. Supportive care such as fluid injections, antibiotics, and assist feeding can be tried but are rarely successful. Given that the vast majority (over 99%) of rabbits with this disease die, humane euthanasia is often recommended.

How can I prevent my rabbit from getting myxomatosis?

The best way to protect your pet rabbit is to keep it indoors, and to have good screens on your doors and windows. If you have other pets that go outdoors, or if fleas are a problem, apply a rabbit safe flea control product such as Advantage or Revolution.

Keeping your rabbit outdoors, or letting it spend time outside, is risky and should be avoided if possible. If you are unable to bring your rabbit inside you can reduce the risk somewhat by carefully covering hutches and enclosures with mosquito netting. Make sure to keep your pet on flea control year round, and prevent contact with wild cottontails.

There is no myxomatosis vaccine available in the United States at this time. While there is a vaccine available in Europe, it cannot be legally imported because it is a live vaccine. In addition, it is not known whether the European vaccine, which is based on a South American strain of myxoma virus, would protect against the California strain.

What should I do if I suspect my rabbit has myxomatosis?

If your rabbit is ill and you suspect myxomatosis, immediately isolate your rabbit from other bunnies and contact a rabbit veterinarian. This is especially important if you have more than one rabbit, as you may be able to stop the disease from spreading.

If you lose a rabbit and are wondering if myxomatosis was the cause, a veterinarian familiar with rabbits can help answer your question.

Myxomatosis is a reportable disease in California, which means that the California Department of Food and Agriculture's Animal Health Branch keeps track of outbreaks. Tracking outbreaks helps teach us more about this disease and how to prevent it. Please report cases to the CDFA's animal health branch at 916-900-5002.

