

# LEPTOSPIROSIS VACCINE MYTHS

## MYTH

**Myth:** The leptospirosis vaccine protects dogs against all serovars of the bacteria.

## TRUTH

There are 22 species of *Leptospira* and more than 250 serovars. Bivalent vaccines containing serovars Canicola and Icterohaemorrhagiae have been available for many years, but after widespread use were seen to be less effective in preventing disease. Newer tetravalent vaccines are now available which include the serovars Canicola, Icterohaemorrhagiae, Pomona, and Grippotyphosa, and are not associated with any more adverse hypersensitivity reactions than other vaccines. Although tetravalent vaccines do not protect against all of the serovars, they do protect against some of the serovars that dogs might be commonly exposed to, and no dogs vaccinated with the tetravalent vaccines have been known to develop leptospirosis with those serovars.

## MYTH

**Myth:** Only large breed dogs, male dogs, or dogs with a predominantly outdoor lifestyle are susceptible to leptospirosis or need to be vaccinated for leptospirosis

## TRUTH

Any age, breed, or sex of dog is susceptible to leptospirosis. The decision to vaccinate or the decision to test should not be excluded on the basis of signalment or lifestyle. While it is not considered a core vaccine for dogs, the leptospirosis vaccine is recommended for any dog that has a risk for exposure. This includes dogs that have contact with areas potentially contaminated by rodent, wildlife or farm animal urine, dogs that swim in potentially contaminated water sources, dogs that travel to areas where the bacteria is found more frequently, and dogs that visit dog parks, boarding or doggie-daycare facilities. Even dogs in completely urban settings can be exposed via rodent urine. Reducing a dog's exposure to possible sources of the *Leptospira* bacteria can reduce its risk of infection. Vaccinating dogs against leptospirosis can help protect them from severe infection and prevent urinary shedding of the bacteria, further aiding in the prevention of zoonotic transmission.

## MYTH

**Myth:** The leptospirosis vaccine is not safe.

## TRUTH

The newer tetravalent leptospirosis vaccine is safe and effective for protection against 4 serovars of *Leptospira*. The risk of adverse hypersensitivity reactions is not higher than for any other vaccine. Adverse reactions such as lethargy or pain at the injection site can occur with any vaccination. The risk of adverse vaccine reactions can be reduced by administering the vaccine separately from other vaccines on different days. Reports of adverse reactions to the leptospirosis vaccine have typically occurred when the vaccine was given with other vaccines, so it is not possible to know which vaccine actually caused the reaction. Standard precaution should be practiced in dogs that are immunocompromised or have a history of serious allergic reactions.

## MYTH

**Myth:** The leptospirosis vaccination provides lifelong immunity.

## TRUTH

Currently available vaccines effectively prevent leptospirosis infection and protect dogs for at least 12 months if given an appropriate booster initially. Annual vaccination is recommended for at-risk dogs.

## MYTH

**Myth:** All dogs will have the same type of reaction and seroconversion to the leptospirosis vaccine.

## TRUTH

Vaccine responses are highly variable among dogs. Natural exposures or immune status could affect the responses of individual dogs.

## MYTH

**Myth:** The leptospirosis vaccine only needs to be given once

## TRUTH

Annual vaccination is recommended if the dog has been previously vaccinated for leptospirosis. The four serovars in the tetravalent vaccine are Canicola, Icterohaemorrhagiae, Pomona, and Grippityphosa. Dogs 8 weeks of age or older should be vaccinated with a booster dose administered 2-4 weeks later. Annual revaccination with 1 dose is recommended.

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## RESOURCES:

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