

# CANINE DISEASES AND SIGNS

## Canine Distemper

Vaccination against this often-fatal, hard-to-treat disease is absolutely essential. Highly contagious, it is spread by discharge from the nose and eyes of infected dogs. Signs can include listlessness, fever, coughing, diarrhea, and vomiting; convulsions and paralysis may occur in the disease's final stages. The distemper virus attacks many organs, including the nervous system, which may be permanently damaged even if the dog recovers.

## Canine Parvovirus

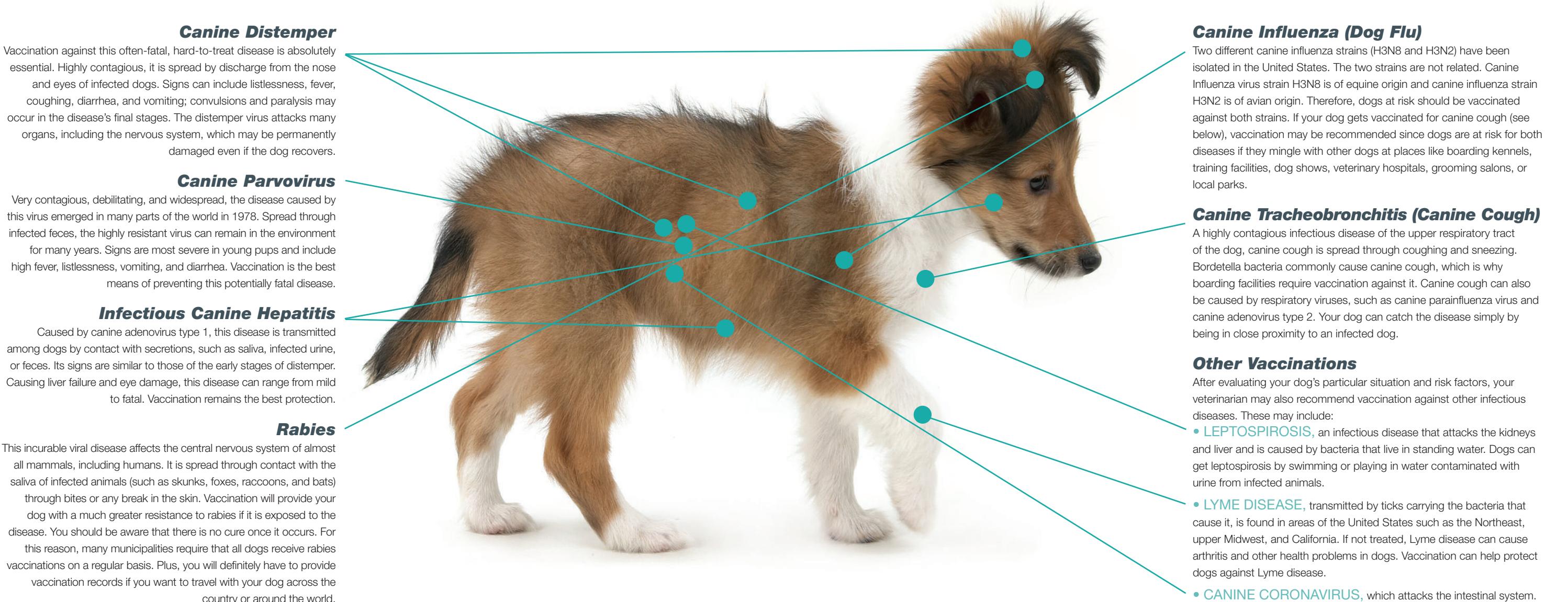
Very contagious, debilitating, and widespread, the disease caused by this virus emerged in many parts of the world in 1978. Spread through infected feces, the highly resistant virus can remain in the environment for many years. Signs are most severe in young pups and include high fever, listlessness, vomiting, and diarrhea. Vaccination is the best means of preventing this potentially fatal disease.

## Infectious Canine Hepatitis

Caused by canine adenovirus type 1, this disease is transmitted among dogs by contact with secretions, such as saliva, infected urine, or feces. Its signs are similar to those of the early stages of distemper. Causing liver failure and eye damage, this disease can range from mild to fatal. Vaccination remains the best protection.

## Rabies

This incurable viral disease affects the central nervous system of almost all mammals, including humans. It is spread through contact with the saliva of infected animals (such as skunks, foxes, raccoons, and bats) through bites or any break in the skin. Vaccination will provide your dog with a much greater resistance to rabies if it is exposed to the disease. You should be aware that there is no cure once it occurs. For this reason, many municipalities require that all dogs receive rabies vaccinations on a regular basis. Plus, you will definitely have to provide vaccination records if you want to travel with your dog across the country or around the world.



## Canine Influenza (Dog Flu)

Two different canine influenza strains (H3N8 and H3N2) have been isolated in the United States. The two strains are not related. Canine Influenza virus strain H3N8 is of equine origin and canine influenza strain H3N2 is of avian origin. Therefore, dogs at risk should be vaccinated against both strains. If your dog gets vaccinated for canine cough (see below), vaccination may be recommended since dogs are at risk for both diseases if they mingle with other dogs at places like boarding kennels, training facilities, dog shows, veterinary hospitals, grooming salons, or local parks.

## Canine Tracheobronchitis (Canine Cough)

A highly contagious infectious disease of the upper respiratory tract of the dog, canine cough is spread through coughing and sneezing. Bordetella bacteria commonly cause canine cough, which is why boarding facilities require vaccination against it. Canine cough can also be caused by respiratory viruses, such as canine parainfluenza virus and canine adenovirus type 2. Your dog can catch the disease simply by being in close proximity to an infected dog.

## Other Vaccinations

After evaluating your dog's particular situation and risk factors, your veterinarian may also recommend vaccination against other infectious diseases. These may include:

- **LEPTOSPIROSIS**, an infectious disease that attacks the kidneys and liver and is caused by bacteria that live in standing water. Dogs can get leptospirosis by swimming or playing in water contaminated with urine from infected animals.
- **LYME DISEASE**, transmitted by ticks carrying the bacteria that cause it, is found in areas of the United States such as the Northeast, upper Midwest, and California. If not treated, Lyme disease can cause arthritis and other health problems in dogs. Vaccination can help protect dogs against Lyme disease.
- **CANINE CORONAVIRUS**, which attacks the intestinal system.

# DOG VACCINATION GUIDE



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# VACCINATIONS: WHY & WHEN

## Protecting your best friend

One of the most important things you can do to give your dog a long and healthy life is to ensure that he or she is vaccinated against common canine diseases. Be sure to follow the advice of your veterinarian to determine the vaccinations needed to protect your dog.

## Why does my dog need to be vaccinated?

During the first few weeks after birth, your dog received disease-fighting cells and proteins—called antibodies—in his or her mother's milk, which provided immunity from disease. After this period, vaccines are needed to protect your dog against disease.

## When should my dog be vaccinated?

The immunity that a puppy acquires at birth is temporary and begins to diminish sometime between 6 and 12 weeks. Initial vaccination usually occurs at 6 weeks of age and is repeated every 2–4 weeks until the puppy is between 3–4 months old. Thereafter, your dog will require repeat vaccinations at regular intervals for the rest of his or her life. Otherwise, your dog may not be protected. Above all, follow the vaccination schedule recommended by your veterinarian.

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## How do vaccines work?

Vaccines contain small quantities of altered or "killed" viruses, bacteria, or other disease-causing organisms that stimulate your dog's immune system to produce antibodies.

## Which vaccinations should my dog receive?

Veterinarians agree that your pet should be protected against those diseases that are most common, highly contagious, and cause serious illness. These diseases could include canine distemper, infectious canine hepatitis, canine parvovirus, and rabies. Other vaccinations may be recommended, based on your veterinarian's evaluation of the risks posed by such factors as your dog's particular environment and lifestyle.

## Is vaccination safe?

Like any medical procedure, there is a small chance of side effects with vaccination. Common side effects are mild and include soreness or swelling at the injection site, fever, or decreased appetite. Rare side effects such as allergic reactions may occur within hours. If this happens, call your veterinarian immediately. The risks of side effects are much smaller than the risks posed by disease. And vaccination is more convenient when you consider the costs of treating a serious illness in terms of money and distress.

## CUSTOM VACCINATION SCHEDULES FOR UNIQUE LIFESTYLES

Your dog will benefit from regular checkups with your veterinarian, including visits to get regular vaccinations. Understanding your dog's lifestyle will help your veterinarian determine the vaccines your dog needs based on his individual risk factors. Some important information that your veterinarian will want to know when determining the best vaccination schedule for your dog includes:

- **Geographic location** (prevalence of ticks, etc)
- **Age and spay/neuter status**
- **Social activity** (boarding, dog parks, groomer, etc)
- **Outdoor activity** (hunting, roaming)
- **Water-based activity** (drinking from or swimming/wading in rivers or lakes; drinking from puddles)

### Help your veterinarian determine what vaccines are right for your dog.

Put a checkmark (✓) in the boxes to the right that best describe your dog's lifestyle and share this with your veterinarian. This will help them decide what vaccines your dog needs.



#### Is your dog:

- A hunting dog or do you live in or near a rural area?
- Likely to eat or drink from unknown sources?
- Exposed to rodents?



#### Is your dog:

- Exposed to other dogs in areas such as doggie daycare or dog parks?



#### Is your dog:

- Treated to frequent trips to the groomer?
- Taken on social outings to the mall or other public places?



#### Is your dog:

- Never exposed to any other dogs, known or unknown?
- Under strict control of their activities and not allowed access to unknown food or water?

Nobivac® vaccines and Merck Animal Health provide rabies vaccines to pets in need in global rabies-endemic areas. We support programs such as **Mission Rabies** and **Afya Serengeti**.

By asking your veterinarian to use Nobivac® vaccines, you are supporting our ability to supply vaccine donations to pets to save human and animal lives. Together, we can erase rabies!

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