# Puppy and Dog Vaccinations: A Schedule for Every Life Stage

Monica Tarantino, DVM

# **Dog Vaccinations**



| Core Vaccines                                                                                           |                              | Noncore Vaccines                                                                                                                                                       |                                           |                                                         |
|---------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------|
| Must have-disease is preventable if core vaccine is administered by a licensed veterinary professional. |                              | Vaccine does not provide complete prevention of disease but risks and spread of disease is lowered when vaccine is administered by a licensed veterinary professional. |                                           |                                                         |
|                                                                                                         |                              |                                                                                                                                                                        |                                           |                                                         |
| 6-8<br>Weeks                                                                                            | 10-12<br>Weeks               |                                                                                                                                                                        | 14-16<br>Weeks                            | Annual<br>Examinations                                  |
| Core Vaccines                                                                                           | Core Vac                     | cines                                                                                                                                                                  | Core Vaccines                             | Core Vaccines                                           |
| DA2PP*                                                                                                  | DA2PP*                       |                                                                                                                                                                        | Rabies**<br>DA2PP*                        | Rabies**<br>DA2PP*                                      |
| Noncore Vaccines                                                                                        | Noncore '                    | Vaccines                                                                                                                                                               | Noncore Vaccines                          | Noncore Vaccines                                        |
| Bordetella<br>Parainfluenza                                                                             | Leptospi<br>Lyme<br>Canine I |                                                                                                                                                                        | Leptospirosis<br>Lyme<br>Canine Influenza | Leptospirosis<br>Lyme<br>Canine Influenza<br>Bordetella |

<sup>\*</sup>DA2PP: (Distemper, Adenovirus I & II, Parvovirus, Parainfluenza) Also referred to as 5-way vaccine

Dog vaccinations are critical to ensuring your four-legged friend stays healthy from puppyhood into their senior years. Vaccines are the safest and most cost-effective way to protect your dog from many infectious preventable diseases.

<sup>\*\*</sup>Rabies: Vaccine renewal depends on state laws and risk

The science behind canine vaccinations has progressed significantly over the past decade, enhancing both their safety and efficacy against existing and emerging pathogens. Here's why vaccinating a dog is important.

# What Diseases Do Dog Vaccines Prevent?

Keeping up with your dog vaccinations is the best way to protect your pup from many different illnesses, including:

#### **Rabies**

Rabies is a virus that causes neurologic disease that is fatal for domestic pets, wildlife, and people. It's most notably transmitted through a bite from an infected animal. If your dog has rabies, it can be transmitted to you or other people through bite wounds.

The rabies vaccine is required by law in the U.S. And despite the excellent vaccination system we have, there are still <u>animals</u> and <u>people that come</u> <u>down with rabies</u> every year.

Due to the fatality and zoonosis (meaning it can be transmitted from animals to people) associated with rabies, there are legal ramifications if your pet is not current on their rabies vaccine. Therefore, it is very important to keep your pet up to date.

It's important to consult with your veterinarian to identify the appropriate schedule for puppy vaccines for your specific pet.

If an unvaccinated dog or a pet that's past due for their rabies vaccine is exposed to a potentially rabid animal or accidentally bites someone, it may result in health concerns, the need to quarantine your pet, or humane euthanasia in certain circumstances.

### Distemper/Adenovirus (Hepatitis)/Parvovirus (DAP)

The DAP vaccine protects against a combination of diseases that can spread quickly among dogs and have serious implications for canines, including severe illness and death.

- <u>Canine distemper</u> is a devastating disease that is highly contagious in unvaccinated dogs and can result in severe neurologic signs, pneumonia, fever, encephalitis, and death.
- Adenovirus 1 is an infectious viral disease that is also known as infectious canine hepatitis. It causes upper respiratory tract infections as well as fever, liver failure, kidney failure, and ocular disease.
- <u>Parvovirus</u> in puppies is particularly contagious and can cause severe vomiting, diarrhea, lethargy, dehydration, and death in severe cases.

Oftentimes, the noncore parainfluenza virus is also combined in this vaccine, changing the vaccine's name to DAPP or DHPP.

#### **Bordetella and Canine Parainfluenza**

Bordetella and canine parainfluenza virus are two agents associated with a highly contagious cough commonly known as <u>kennel cough</u>, <u>or canine</u> <u>infectious respiratory disease complex (CIRDC)</u>.

Diseases from these agents typically resolve on their own but sometimes can lead to <u>pneumonia</u> or more severe respiratory disease. Because kennel cough is so contagious, boarding and doggy day care facilities across the U.S. require your pet to have this vaccine.

Parainfluenza may or may not be included in a combination vaccine with

Bordetella or the DAP.

#### **Canine Influenza**

<u>Canine influenza</u> in the U.S. is caused by two identified strains of the virus: H3N2 and H3N8. It is highly contagious and causes cough, nasal discharge, and <u>low-grade fever in dogs</u>.

Outbreaks in the U.S. draw a lot of attention, as influenza viruses can give rise to new flu strains that have the potential to affect other species and possibly cause death.

Typically, the canine influenza vaccines are recommended for dogs that go to day care, boarding, the groomer, or any place where they will be among other dogs. Discuss with your vet if this vaccine is recommended for your pet.

## **Leptospirosis Disease**

<u>Leptospirosis</u> is a bacterial disease that can cause severe kidney or liver failure in both dogs and people. It's transmitted via the urine of infected animals and is found in both rural and urban settings.

This vaccine is considered core in geographic locations where leptospirosis occurs, but it's not considered universally a core vaccine. Dogs can be exposed to this illness by licking or coming in contact with a contaminated puddle or body of water where an infected animal has urinated.

Though traditionally, the leptospirosis vaccine was recommended to dogs in rural areas with outdoorsy lifestyles, leptospirosis has now been found to occur in suburban and urban settings, too. The city of <u>Boston experienced</u> an <u>outbreak in 2018</u> likely due to urine of infected city rats.

Leptospirosis can be transmitted to people as well. Talk to your vet about

whether they recommend this vaccine for your pet. The vaccine covers four of the most common serovars of leptospirosis, and the initial vaccine must be boostered two to four weeks later, and then annually thereafter.

## **Lyme Disease**

<u>Lyme disease</u> is a <u>tick-borne disease</u> caused by the *Borrelia* burgdorferi bacteria that can cause fever, lethargy, decreased appetite, shifting leg lameness, and kidney failure in severe cases.

Lyme disease is endemic in various areas around the country (such as the northeast, northern Midwest, and Pacific coast), and the vaccine is recommended in these areas and for dogs traveling to places with high rates of the disease. Discuss with your vet if this vaccine is recommended for your pet.

Like leptospirosis, the vaccine is initially given as two injections spaced three to four weeks apart, and then yearly after that.