

## Puppy Vaccinations

By Jenna Stregowski, RVT

Vaccinations are an essential part of a puppy's health care plan. Though there is some controversy about the potential risk of vaccines and over-vaccination, most experts agree that certain basic immunizations are essential to keep your puppy from getting sick and prevent the spread of disease.

### **Why Vaccinate Your Puppy?**

When puppies are born, their immune systems are not fully developed, so they cannot fight disease. However, during the first few days of a puppy's life, nursing mothers provide antibody-rich milk called colostrum. These antibodies provide puppies with temporary immunity against illness. While the length of this immunity varies from puppy to puppy, it is generally believed that maternal antibodies are gone after 16 to 20 weeks.

Enter puppy vaccination. Vaccines are designed to trigger immune responses and prevent future infection from diseases. All puppies should be administered certain core vaccines – these provide immunity against the most dangerous and widespread diseases and are considered essential for puppies in most geographical locations. Depending on your location and your puppy's environment, you may want non-core vaccines given as well. Talk to your vet about your puppy's risk of exposure to these diseases.

### **How Puppy Vaccinations Work?**

Puppy vaccines are typically first administered at about six to eight weeks of age, then repeated every three to four weeks until about four months of age. Some of these vaccines might be given together in one injection that is called a combination vaccine. At your puppy's first veterinary exam, your vet will discuss the schedule of vaccinations and other treatments for your puppy, such as deworming and beginning heartworm prevention. Vaccines should never be given to a puppy with a fever or illness - the vaccine will not be effective and could actually make the puppy feel worse. During each subsequent visit, your vet will do a general examination first. The vaccine injection itself is typically not painful. Some puppies seem to feel a little pinch or sting, while others do not react at all.

After a vaccine is administered, immunity is not immediate - it takes about five to ten days to become effective. However, puppies that still have maternal antibodies will not be affected by the vaccine. There is no way to be certain if a puppy still has maternal antibodies, hence the reason for boosters. True immunity is uncertain until about four months of age, or until all puppy boosters are completed. Avoid bringing your puppy to dog parks or otherwise exposing your puppy to unknown animals until all vaccinations have been given. See the chart below for a basic vaccine schedule.

### **Risks of Vaccinating**

There are some risks associated with vaccinations, though relatively uncommon. Vaccine reactions and side effects are typically mild and self-limiting. Signs may include pain and swelling at the injection site, lethargy or fever. Severe allergic reactions are less common, but can be fatal if left untreated. If your puppy develops hives, facial swelling, or difficulty breathing, contact your vet immediately.

Because vaccinations stimulate the immune system, there is a risk for developing an auto-immune disorder. This is very uncommon when you consider the numbers of dogs affected versus all the dogs that are vaccinated. However, auto-immune disorders can be serious and difficult to treat. Illnesses that may occur include blood disorders, neuro-muscular issues and even skin problems.

Despite the potential side effects, most veterinarians and pet experts agree that the benefits outweigh the risk when it comes to puppy vaccines. However, with adult boosters, many vets are embracing protocols that vaccinate less often. Once given annually as a rule, adult vaccinations are now more likely to be recommended every three years.

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