

VACCINATIONS FOR YOUR PUPPIES- WHY WE RECOMMEND MULTIPLE VACCINES

There are people who will tell you that vaccinations are not necessary and could even be harmful. Think about this – when was the last time you heard of anyone in the United States having polio? I'm thinking probably *never*. Why? Because we *vaccinate* against it.

So how do vaccines work? Some will tell you that when you vaccinate your dog against rabies, you are giving him rabies. Well, in a way, you are but it is a killed version of the virus so they can't contract the disease but rather develop antibodies against the virus should the pet be bitten by an animal that has already contracted the disease. The killed vaccine is a form of the disease that is so suppressed it is to all intents and purposes dead, and your dog's natural immune system works against it, becoming stronger, and ultimately making your dog immune to rabies.

So, let's talk about vaccinating your puppy. The following answers frequently asked questions by new pet owners but if you have additional questions or concerns, I'm confident that one of our staff will be happy to give you additional information.

1. Why Does My Puppy Need So Many Shots?

There are a lot of very common, very contagious diseases out there, and your puppy needs to be protected. The number of shots recommended depends on where the puppy was born and raised, the current living environment, and what diseases are prolific in your geographical area. A puppy that is born in a kennel operated by a **responsible, experienced** breeder will likely need fewer shots than, say, one that was born in an animal shelter. One question to always ask the breeder is what do they do to ensure consistent viability of the vaccines they use? Ask about the breeding history of the parents. Ask if they have ever had any problems in their litters sold with viruses or other diseases. Ask for references from previous sales. But I digress. Back to vaccines. If born in a shelter, multiple combinations of vaccines may be required before the puppy can be declared immune from various diseases. A single parvovirus/rabies combo **may be but is rarely** sufficient for a puppy even from an excellent breeding facility. I would never suggest one vaccine not knowing the environment to puppy is moving to or evaluating thoroughly all the parameters previously mentioned.

What you need to keep in mind is that puppies are like snowflakes – no two are exactly alike. Most of the time, the owner of a new puppy will be confused as to why multiple shots are necessary. Our patient care team will recommend that your puppy be vaccinated against parvovirus, distemper, corona, and canine hepatitis multiple times, beginning at the age of 6-8 weeks. Then shots will be needed every 2-3 weeks, until the age of 16 weeks. Usually, to achieve full immunity, a minimum of three to four vaccinations will be required. Two vaccinations for leptospirosis are recommended as part of the final two series of vaccines along with Bordetella - recommended for those dogs who will be groomed, boarded, or in areas where dogs congregate. Rabies vaccine does not require a booster and is given between 14-16 weeks of age. By law, all dogs and cats should have a Rabies vaccine by 16 weeks of age

2. So My Puppy Needs Booster Shots?

Not exactly but we call them boosters for simplicity. Multiple shots are not given to “boost” immunity. Rather, we do a series of shots to make sure that your puppy’s immune system gets the immunization at the most desirable point because your puppy has several times throughout his growth cycle when the antibodies will not respond well to disease antigens. These points are hard to identify, so shots are done repeatedly to make sure that they are effective.

During this same growth cycle, the immunity (antibodies) puppies get from their mom’s colostrum during the early nursing stage begins to decrease as they are developing their own immune system. Therefore, during the lowest points (when then puppy is most vulnerable to disease) the vaccine helps to cover their immunity.

3. Antibodies, Antigens – I Don’t Understand the difference.

An antigen is something that causes the puppy’s immune system to respond. This is what we talked about above, the dead or modified virus that activates the natural immune system to respond to that virus. The antigen is similar to the live virus, but not active, so it can’t make your puppy sick.

The antibodies are the substances within the immune system that identify and kill the antigens. So, when a puppy is vaccinated, what happens is that his immune system “learns” how to identify the disease and is prompted to fight it. Then, any time that your puppy encounters those harmful antigens, the immune system will kick in and destroy them. Once the immune system becomes “trained” to identify those antigens, and forms the necessary antibodies, your puppy is immunized.

Our current vaccines are recommended to be given annually after the puppy stage and some vaccines have been created to provide immunity for a 3-year period – which requires a 3-yr certified vaccine.

4. So Why Do Some Puppies Get Sick

Let’s start by saying when a puppy gets sick after vaccination, it isn’t the virus they have contracted from the vaccine! Remember the vaccine has a killed antigen or modified antigen so it doesn’t infect the puppy but rather stimulates their immune response.

When puppies have reactions to vaccines it is most commonly the medium used to transport the vaccine into their system. Just like our kids when they were vaccinated you might see mild lethargy, reduced appetite, and soreness at the site. These are typical reactions which usually resolve within 1-2 days. As the vaccine challenges their immune system it can tend to wear some pets out – tire them. Stronger reactions like hives and periodic vomiting require attention by our staff to make the pet more comfortable. Even more serious reactions like non- stop vomiting, difficulty breathing, and/or collapse are **almost never** seen but very serious when

they occur and require immediate attention. We use vaccine combinations with the smallest amount of additive that has been shown to produce these reactions very infrequently. When these reactions occur, for subsequent vaccines we pretreat your pet with medications to avoid these concerns in the future.

5. Let's revisit Colostrum. Doesn't the Colostrum Provide Immunization?

Colostrum is the mother's "first milk," the yellowish milk that is produced immediately after the litter is delivered. And yes, the puppies will receive some protection in the form of antibodies if they consume the colostrum. More antibodies will be delivered if the mother has been properly vaccinated. The level of protection can vary – the puppy will probably be protected for anywhere from three to eight weeks- maybe a little longer. The strongest protection is found in the earlier weeks and then begins to fade.

Now, it gets a bit complicated. If the puppy is vaccinated while the antibodies of the mother are still in his system, the mother's antibodies will perceive the vaccine as a harmful intruder and will attack and destroy it. This means that the puppy's vaccination will be rendered ineffective. He can't develop antibodies while the mother's antibodies are still in his system. Depending on how well the puppy is nursing from the mother, he may have picked up quite a lot of antibodies from her, a small amount from her, or even none. And if the mother was never vaccinated, then she will have no antigens at all to deliver to her puppies via the colostrum. Therefore, vaccinating too early (before 6 weeks) is only effective if mom has no antigens to deliver to her puppies. So to recap, the variables here include the level of immunity of the mother, and whether the puppy received colostrum while nursing.

Assuming the mother has antibodies, the antibodies could cease to be effective as early as 3 weeks, or as late as 12, or at any point between. If the maternal antibodies fade at 3 weeks, and you wait until he's 12 weeks to have him vaccinated, then he's been vulnerable for quite a long time. You don't want to raise him without socializing him early on, so if you decide to just keep him at home until he's older, you're probably going to end up adversely affecting his behavioral development. Remembering puppies are like snowflakes, if we vaccinated puppies on a schedule and start at an appropriate time, we risk fewer puppies being exposed to a virus during their weakest times or their developmental stage. And, building their immunity early allows you to start training for socialization and grooming purposes with less risk of contracting the virus.

Knowing the vaccine status of mom before the puppies are born, knowing the breeding history or the mom and dad, knowing the breeder and the environment they're in, and knowing the virus concerns in your geographical area are all important factors in determining when to start vaccines and how many to administer.

6. Is There Anything Else I Should Know?

Yes. Until your puppy gets his final shots (usually by 16 weeks of age), he is not fully immunized. Therefore, you shouldn't be taking him to the dog stores, dog parks, for walks along paths where stray dogs roam or where dogs visit when you don't know their immune status, or anywhere else that he's likely to come into contact with other dogs whose immunization may be in question. You want him to be properly socialized, though, so take him to the homes of friends and family who keep their dogs vaccinated. Make sure too, that if you think someone has been in places where dogs congregate or work environments where Parvo virus, especially, has been diagnosed, make sure they leave their shoes at the door before coming into your home. Parvo virus can be spread by people from place to place and remains in an improperly cleaned environment for many years.

What is Parvo Virus

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What is Distemper Virus

<https://veterinarypartner.vin.com/default.aspx?pid=19239&id=4952099>

What is Canine Hepatitis Virus

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What is Leptospirosis

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