Puppy Vaccination

A Guide to Reducing Risk

DOGS NATURALLY

for dogs without boundaries

Introduction

Although vaccines were once believed to be safe and effective, vets and pet owners are becoming more aware of the fact that any vaccine, given in any point in any dog's life, has the ability to cause serious harm. In order to limit the risk of adverse events, it's important to consider how early, how often and how many vaccines are given.

If pet owners want to avoid vaccine related dangers altogether, then the best option would be to not vaccinate at all. This is a viable option for many who would gladly trade the risk of vaccine related damage for the risk of acute infection from puppy diseases.

Pet owners who don't vaccinate – and the vets who support this practice – realize that the risk of distemper is very low and that parvovirus in unvaccinated and healthy puppies is treatable in the majority of cases. They also realize that vaccines are ticking bombs that can create immediate and devastating disease or more chronic forms of disease including arthritis, allergies, intestinal disease and cancer.

On page 3 is a list of potential adverse vaccine reactions, according to noted veterinary immunologist, Dr. Ronald Schultz. If you vaccinate, these vaccine risks are unavoidable. There are steps that you can take however, to decrease the risk of disease in your puppy. The first step is to have a fundamental knowledge of the immune system and what vaccines can and can't do.

Vaccination or Immunization?

It may come as a surprise to some people – and many vets – that vaccination and immunization are not the same thing. Your dog or puppy is perfectly capable of creating immunity all by himself – and once he does, the immunity likely lasts for a lifetime.

Natural immunity is why, not that long ago, parents used to have 'chicken pox parties' for their children; and also why, once children get chicken pox, they never get it again. Natural immunity is how most dogs survived without vaccination when parvovirus first came on the scene over thirty years ago – and how the original strain of parvo is still in the environment but very rarely causes noticeable clinical signs in dogs – even though there is no vaccine for it. The body has a highly functional immune system that works exceedingly well in most cases.

Vaccines do not immunize: they sensitize. Their job is to introduce small amounts of disease to the body, albeit artificially, so the body is able to form immunity on a more convenient and predictable time frame. Most vets pay a lot of attention to vaccinating but very little attention to immunizing.

The result is that most puppy vaccination series are poorly timed and the wrong vaccines are given at inappropriate times and given too often. Simply stated, many puppies are vaccinated too early, too often and with too many vaccines at once. When this happens, the vaccines suppress the immune system instead of supporting it – or in many cases, they can cause an over-stimulation of the immune system and the body can begin to attack its own cells (autoimmune disease). So it is crucial that every vaccine and every puppy is treated with the utmost caution and care and that immunization, not vaccination, is the goal.

Common reactions

Lethargy
Hair loss, hair color change at injection site
Fever
Soreness or stiffness
Refusal to eat
Conjunctivitis
Sneezing
Oral ulcers

Moderate reactions

Immunosupression
Behavioral changes
Vitiligo
Weight loss (Cachexia)
Reduced milk production
Lameness
Granulomas/Abscesses
Hives and atopy
Facial edema
Respiratory disease
Allergic uveitis (Blue Eye)

Severe Reactions

Vaccine injection site sarcomas
Anaphylaxis
Arthritis, polyarthritis
HOD hypertrophy osteodystrophy
Autoimmune Hemolytic Anemia
Immune Mediated Thrombocytopenia (IMTP)
Hemolytic disease of the newborn
Thyroiditis
Glomerulonephritis
Disease or enhanced disease which the vaccine was designed to prevent
Myocarditis
Post vaccinal encephalitis or polyneuritis
Seizures
Abortion, congenital anomalies, embryonic/fetal death, failure to conceive

Too early

When puppies are very young, they are protected from disease by ingesting their mother's first milk, called colostrum. This rich milk contains maternal antibodies against disease which the mother passes down to her puppies. The puppy's immune system is not fully mature, or active, until it is around six months of age, but the maternal antibodies provide passive immunity to each puppy.

When a puppy with a reasonable amount of maternal antibodies is vaccinated, the maternal antibodies will essentially inactivate the vaccine, just as they would a real virus. The maternal antibodies for distemper, one of the core vaccines, are fairly predictable and are usually low enough for vaccination to be effective at eight or nine weeks of age. In the case of parvovirus however, the other core vaccine, the maternal antibodies last a lot longer in most puppies - so vaccinating at eight or nine weeks wouldn't be all that effective.

In a study performed by Vanguard, it was found that a combination vaccine (which typically contains parvovirus, distemper and one to five other antigens) given to six week old puppies had only a 52% chance of protecting them against parvo. This means that the puppy has all of the risk of the vaccine but only half the potential benefit. At nine weeks of age, 88% of the puppies in the study showed a response to the vaccine. At 12 weeks, 100% of the puppies were protected. Some vaccines will provide protection earlier or later.

Only one dose of the modified live canine 'core' vaccine, when administered at 16 weeks or older, will provide long lasting (many years to a lifetime) immunity in a very high percentage of animals.

Vaccinating puppies under 12 weeks of age, and certainly under nine weeks of age, for parvovirus is a high risk, low reward approach. Not only is the parvovirus component of the combination vaccine not all that likely to be effective at that age, it can actually work to block the effectiveness of the distemper component. It also makes the vaccine more dangerous, because the more antigens contained in the vaccine, the greater the risk of autoimmune disease (including allergies, joint disease and cancer). Moreover, most vets haven't seen a case of distemper in years which begs the question: what is the big push to start vaccinating puppies at six to eight weeks of age when the parvovirus component is unlikely to work and it is very unlikely the puppy will come into contact with distemper?

Too often

Pfizer performed an interesting field study in 1996 where they split vaccinated puppies into two groups. Group A received a single vaccination at 12 weeks and Group B received a first vaccine between eight to 10 weeks and a second at 12 weeks. When titers were measured, 100% of the puppies vaccinated once at 12 weeks were protected whereas only 94% of the puppies in Group B were protected – despite receiving two vaccines as opposed to one.

It appears that the first vaccine can interfere with the second vaccine. So vaccinating your puppy twice not only doubles his risk for adverse vaccine reactions, it appears to make vaccination less effective overall.

Most people – including many vets – believe that it takes more than one vaccine to create immunity in a puppy. This simply isn't true. It only takes one vaccine to not only protect a puppy, but to protect him for life. After more than 40 years of testing immunity in thousands of dogs, Dr. Ronald Schultz has come to the following conclusion: "Only one dose of the modified-live canine 'core' vaccine, when administered at 16 weeks or older, will provide long lasting (many years to a lifetime) immunity in a very high percentage of animals." That very high percentage Dr. Schultz speaks of is nearly 100%.

The only reason vets give puppies more than one vaccine is they are trying to catch the small window in time when the maternal antibodies are low enough that they won't block the vaccine, but the puppy is young enough that he isn't exposed to viruses in the environment. The point in time when the maternal antibodies for parvovirus wane enough for vaccination to work can vary between eight weeks and 26 weeks. So vets dutifully and mindlessly vaccinate every two to four weeks – with a combination vaccine, not just with parvo - trying to get one of them to work. Most vets also vaccinate once more at a year of age – just to be certain.

Nearly all vets vaccinate every year or three years after that – for some unknown reason, because there is no scientific validity to this practice. As Dr. Schultz stated, there is no need for revaccination once a puppy is protected – and if a puppy receives a vaccination at 16 weeks, he is very, very likely to be protected.

Too much

The result of these errors in judgement is that puppies receive more vaccines than they need – lots more. They receive a parvovirus component in their first combination vaccine when that part of the vaccine has little chance of working. Most puppies are protected against distemper with the first vaccine if not given too early, yet most puppies are given a combination vaccine containing distemper at 12 to 16 weeks and older – when they really only need the parvovirus.

Most combination puppy vaccines also contain an adenovirus component. Adenovirus has been shown to suppress the immune system for ten days following vaccination. This means that puppies that receive needless vaccines not only suffer the risk of adverse events from the vaccine, but they are more at risk of picking up any other virus or bacterium that crosses their path because their immune system has been over loaded by the vaccine itself.

This is not a good proposition for a puppy taken to the vet clinic to receive his vaccines, because it exposes him to the riskiest possible environment outside of perhaps an animal shelter and his immune system will be suppressed while his body tries to fight four, five or even seven different diseases at the same time, all given to him through a needle. The result is many puppies actually get the disease they are being vaccinated for. Their immune system is simply overloaded at a time when they are exposed to a pretty dangerous place for puppies to be.

Adenovirus is an upper respiratory disease that is self limiting – that hardly seems like a good trade off for immune protection when puppies need it most. The same applies to parainfluenza - and coronavirus, which commonly occurs only in puppies too young to be vaccinated anyway. And that's just the core vaccines. Some puppies will also be vaccinated with other non-core vaccines including the particularly dangerous leptospirosis vaccine.

Clearly, vets are very good at vaccination. The problem is, current puppy vaccination programs don't adequately address immunity. Very few vets take a realistic and scientific look at the best time to vaccinate for distemper, followed by the best time to vaccinate for parvovirus, followed by asking why are we even vaccinating for self limiting diseases such as coronavirus and adenovirus which are really only dangerous in puppies who are too young to effectively vaccinate anyway?

Taking the guesswork out of puppy shots

Vaccines may seem technologically advanced, but when given randomly and for no good reason, they are at best useless and at worst dangerous. Vaccine manufacturers are constantly trying to improve the safety of vaccines, but there will always be an inherent danger when injecting pharmaceutical products, along with their toxic chemicals, into dogs and puppies. Until the unlikely time comes when vaccines are completely safe and completely effective, there are two proven, effective ways to reduce the number of unnecessary vaccines in puppies.

Nomographs

Not that many years ago, vets used something called a nomograph to tell breeders the best time to vaccinate their puppies. The nomograph examines antibody titers of the dam and determines almost exactly when her maternal antibodies will wear off in her puppies. The value in knowing this is that the breeder can provide the right vaccine at the right time, eliminating the need for, and risk of, unnecessary vaccinations.

Nomographs are perfect for breeders who are interested in using only monovalent (single virus), vaccines in place of the more dangerous combination or polyvalent vaccines. For example, the nomograph could predict that the maternal antibodies for distemper will wane at eight weeks, but that parvovirus might wane at 14 weeks. The breeder would then vaccinate with the right vaccine at the right time and the vaccination schedule would be based on science instead of guesswork.

Titers

For puppy owners without the advantage of a nomograph, titers can save puppies' lives and protect their well being in the long run. Instead of guessing if vaccination is necessary, running a titer three weeks after a vaccination will indicate with nearly 100% certainty whether the puppy needs another vaccine or not.

Titers also allow vets to use the safer monovalent vaccines. A puppy can be vaccinated at nine weeks with distemper only – an age when he is very likely to respond to the vaccine – and the titer will later most likely show that he is protected and protected for life. Then, a monovalent vaccine could be given for parvovirus at perhaps 12 weeks and a titer run three weeks after that. If the titer is low, then the vaccine can be repeated but if it is high, the puppy is protected against parvovirus, very likely for life.

Know How To Minimize The Risk

Despite these two easily accessible options, many vets believe – and lead us to believe – that puppies must be subjected to a series of vaccinations. Many vets understand titers but don't offer them as an option to vaccination. This may be because vaccines are cheap and titers aren't. Whether that equates to less profit for the vets or they are assuming that puppy owners don't want to invest in a safer vaccination program is unknown. Titers can be expensive – but so can the damage that results from vaccines. Unlike vaccines, titers are completely safe for puppies.

Many vets are also not willing to stock monovalent vaccines because of the higher cost. The most likely scenario however, is that vets are simply vaccinating with the typical puppy schedule out of nothing more than habit and convenience.

In the end, one way to avoid vaccine damage is obviously to not vaccinate. This might increase the risk of acute disease, but domestic and wild animals – and people too – have been exposed to viruses for years and the immune system, when not suppressed with vaccinations, poor diet, toxins and drugs, has a profound ability to fight off exposure to viruses and bacteria. Simply supporting the immune system can go a long ways toward avoiding acute disease such as parvo - and will certainly reduce the severity of the symptoms.

The second option is to make sure your vet is choosing vaccines wisely and with a constant awareness that every vaccine has the potential to kill the patient. Nomographs and titers are useful tools that really aren't that expensive in the long run when compared to the thousands of dollars pet owners spend on chronic, vaccine induced diseases including, but certainly not limited to, hypothyroidism, seizures, cancer, arthritis, allergies and gas- trointestinal issues. They are very cheap insurance in many regards.

The worst option is to do nothing different and haphazardly vaccinate puppies every two to four weeks with a combination vaccine. Many vets are not making the connection between chronic debilitating disease and over vaccination, so unless a puppy's head swells to the size of a football immediately after vaccination, they are reluctant to blame vaccines for any of the adverse reactions that Dr. Schultz has identified.

It's important to understand that we pet owners can open vets' eyes to safer and more effective puppy vaccination programs by paying for titer tests and investing in monovalent vaccines – even if that means having to buy a whole case of vaccine vials for one little puppy. Chances are that case of monovalent vaccines will disappear, one by one, and every one used means one less puppy who will be potentially harmed by needless or thoughtless vaccination. That is a very good investment indeed!

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