

Vaccine Seminar Notes from a friend:

Vaccine Seminar in Ct. on Saturday along with Dr. Mary Stankovics. The seminar featured **Dr. Ron Schultz (DVM. PhD), who is a Professor and Department Chair of the Dept. of Pathobiological Sciences at the School of Veterinary Medicine at the University of Wisconsin. Dr. Schultz is a leading pioneer in veterinary immunology, and has been hard at work studying vaccines and their effects and effectiveness for over forty years. He has done research for very major vaccine makers, as well as for various other institutions.** His information was well presented and very enlightening. **While he may be considered a maverick by some, Dr. Schultz in no way suggests that we should not vaccinate our dogs!** In fact, he says the three most important things we give our puppies, is Training, Love, and Vaccines!

(Please, pay particular attention to the part about vaccinating 'older' pets. I have spoken to several owners whose pet went into a coma immediately after or soon after and passed immediately or very soon after receiving vaccine boosters. Donna)

I forwarded one of Dr. Schultz's papers, "**Considerations in Designing Effective and Safe Vaccination Programs for Dogs**" in a separate e-mail. **PLEASE print it out and share it with your vet!**

Understand your options, and discuss them with your vet BEFORE you agree to ANY vaccinations. NEVER allow yourself to be talked into ANY medical treatment or procedure you don't understand or are not comfortable with. It is your responsibility to be an advocate for your pet! If your vet will not work with you on ANY important issue, you need to find one who will.

PLEASE consider what Dr. Schultz is saying and recommending, have your vet read his papers, and take his advice to heart for the sake of your dog. In light of all the cancers and auto-immune problems we are seeing in people as well as pets, we can't afford to keep going about vaccination as naively as we have in the past. Dr. Schultz's study is not limited to academia and laboratories. He is in the trenches all over the world working with shelters, humane societies, rescue groups, breeders, breed clubs, pet owners and anyone else who cares about dogs. His many years of study reflect his passion and his diversity of experience that few other doctors or scientists share.

Bear in mind, that the first duty of a medical professional is to DO NO HARM. Rather than merely dwelling on the risks of vaccinations, which are relatively small in the general population, Dr. Schultz suggests that it is paramount that we "**Don't do what is not needed,**" Everything we do has an effect down the road that we can't always anticipate, so it makes more sense to proceed cautiously. While negative vaccine reactions are uncommon in the population as a whole, they may pose more problems within certain families or species.

Reactions can be mild or severe; even fatal. If there is a genetic predisposition, vaccines may trigger auto-immune reactions and exacerbate or potentiate cancer. We have to make a Benefit/Risk assessment when we use **any** medicines and vaccines, asking these questions:

- 1) What is the risk of infection?
- 2) What is the risk of disease? (note: infection and disease are NOT synonymous)
- 3) What is the risk of adverse reaction? (Keeping in mind that even with the risk of 1 in 10,000, if that ONE is YOU or YOUR dog, you will not think it was a good risk.)
- 4) What is the benefit derived? In some cases, situational concerns (i.e., shelters) and geographic location (endemic or epidemic areas) may affect risk determination.

A) **Innate/natural immunity** which is present from birth and operates against any substance (i.e., skin, stomach acid, vomiting, etc.). This innate immunity is not enhanced by prior exposure, and improves with age until it gradually declines in old age. This nonspecific immunity is aided by GOOD NUTRITION and GOOD HEALTH.

B) **Acquired/adaptive immunity** which is specific in its defense against individual pathogens, and is enhanced by prior exposure, i.e., thymus and bone marrow, which manufacture all the cells in the immune system, lymph nodes, tonsils, spleen, etc.

- 5) Dr. Schultz reminds us also that many researchers looking for the best possible solution to a problem may be very narrow-minded in their vision. This has resulted in many "mistakes" in the past, which are not always easy or possible to correct. Dr. Schultz believes we must consider a more wholistic approach WRT vaccine protocols. There is always potential for another negative reaction to occur that we did not anticipate. **In the case of vaccines, the two systems most affected are the endocrine systems and the neurologic systems.** Not something to take lightly!

6) Another important factor to consider is that while vaccines are promoted to be SAFE and EFFECTIVE, this applies to LABORATORY ANIMALS IN LABORATORY SETTINGS. Much different than the average pet dog!

So what does this mean? **When do we vaccinate and what do we vaccinate for????** One idea that really impressed me, is that breeders can now effectively address the problem of WHEN to vaccinate effectively. One dilemma with vaccination has been that we didn't know how long maternal antibodies were effective. These antibodies are passed from mother to pup through the placenta (5%), and also **in the colostrum the pups receive in the first 72 hours of life (95%)**. As it grows, the puppy must soon develop its own immune response, as this **passive immunity declines by half every 12 days**. SO- if we vaccinate too early, we run the risk of the vaccine not being effective because of the interference of the maternal antibodies. And if we vaccinate too late, we risk leaving the puppy vulnerable to infection once the maternal antibodies are no longer protective to the pup. **Dr. Schultz suggested that we can use a chart called a nomograph to determine exactly when this optimum window occurs. We can send a blood sample to Cornell, taken from the pregnant bitch not closer than 2 weeks before whelping, and apply the results to the nomograph to give us our answer of exactly when to vaccinate.**

7) By vaccinating according to the traditional schedules based on guesswork, some pups will develop immunity after one vaccination, and others not until after 2 or 3. Because **once immunity is reached, MORE VACCINES DO NOT OFFER MORE BENEFIT (and indeed pose potential risk)**, naturally, we want to gain maximum benefit with a minimal program. It is also important to note that **some dogs may prove to be non-responders, meaning that NO amount of vaccination will offer them immunity to a particular pathogen. This is something we can and SHOULD determine by doing titers. (more on that later)** (11) Dr. Schultz's studies have consistently shown that the "good" vaccines (Intervet, Ft. Dodge, Merial, Pfizer Animal health and Schering Plough Animal Health) provide at least 3 years of immunity, and Distemper, Parvo and Adenovirus provide a minimum of 7-9 years, which is really lifetime immunity for a dog. The reason he is suggesting (in his paper) that vaccines not be given more often than every 3 years, (rather than just once in a lifetime as his studies show are sufficient) is not based on the fact that they will not provide immunity longer than 3 years, but rather that the established veterinary community will need time to adjust to the idea that these vaccines are good for the life of the dog, once immunity is reached. So as a

compromise measure to the veterinary establishment, he "formally" suggests **NOT MORE THAN EVERY 3 YEARS**. You can run titers every few years if you are worried about loss of immunity, but any number above ZERO means that you have protection. Worth noting: Dr. Schultz vaccinates his own dogs only ONCE, and then titers. We have been doing the same for a number of years with good results.

So what vaccines should we be giving our pets? Dr. Schultz breaks them into **two groups he calls CORE vaccines and NON-CORE vaccines**. After attending his seminar (and learning that **he gives only core vaccines to his own dogs**), we are even more convinced that only core vaccines are needed or desirable. (Consult the charts in his article for specific programs and discuss them with your vet. We personally use and recommend only the two minimal approaches -("D" and "A") with NO non-core additions.

Rabies is the ONLY Vaccine required by law. The USDA tests only the **minimum** duration of effectiveness, not the outer end, so we must vaccinate for rabies every 3 years according to law, even though Dr. Schultz has proven the effectiveness lasts much longer.

The most critical vaccines for puppies are distemper and parvo, because those diseases are prevalent in the animal population and can kill a puppy in hours. Distemper and Parvo vaccines should be first administered by themselves (as a D/P combo) so that the pup can mount the strongest immune response to them. Additional vaccines (if needed) can be administered after the second D/P shot and following a positive titer (2 weeks later) to be sure adequate immunity has been reached. (If no titer is reached after the second shot, the pup is a non-responder, meaning it will never have immunity to that agent. This puts it into a high risk category because it will get sick and maybe even die if it is exposed to that disease. So you must act accordingly)

Why should we vaccinate less with core vaccines?

- 1) Because the **Duration of immunity (Distemper) CPV-2, (Parvo) and CAV-2 (infectious hepatitis) is 7-10 years**.
- 2) Because Vaccinating more often than every 3 years adds NO benefit

3) **Because the risk of adverse reactions, no matter how low, from the administration of a medical product that is not required, is an unacceptable medical practice.**

We CAN determine if DOI has been reached!

- 1) Through challenge with virulent agents (good for researchers but not practical for us as pet owners).
- 2) Through serology- (titers). **THERE IS AN EXCELLENT RELATIONSHIP BETWEEN ANTIBODY TITER AND PROTECTION.**

So what does this mean to you? Here is what we suggest based on Dr. Schultz's extensive research and recommendations.

1) First vaccine- Distemper/Parvo at 6-8 weeks (which we gave at 8 weeksX

2) Second vaccine D/P 3 weeks later. (11 weeks in this case)

3) Then titer (SEND TO CORNELL!) 2 weeks later to be sure immunity had been reached. (If your pup is a non-responder, re-vaccinate only the single component **that didn't produce the response. Then titer again 2 weeks later. If still no response, treat your animal as a high risk.**)

4) *If you have demonstrated immunity (as shown by the titer), you are protected for at LEAST 3 years, and Dr. Schultz's studies indicate you are good for LIFE. More vaccination offers NO benefit, but still poses all the risks.*

5) If you determine you need more than the D/P vaccine, you can do a combo shot 3 weeks later. (14 weeks in this case) We would consider the addition of the 2 adenoviruses and parainfluenza as the maximum protection needed (5-way) under normal circumstances in our area.

6) Lepto, Bordatella, Borrelia, Lyme, Giardia or any other non-core vaccines are NOT recommended.

7) Rabies- NO EARLIER than 12-16 weeks. Can wait till 6 mos. if you are vigilant, which is what we do. Then one year later, and then every 3 years, as required by law.

Misc. Notes:

**Vaccines take effect almost immediately.

Many dogs may become infected, but few develop clinical symptoms.

****Corona Vaccine is a vaccine in search of a disease. Do not give. Do not vaccinate pregnant animals under any circumstances.**

****Lyme vaccines have a high rate of false positives. (>10%) They cannot provide sterile immunity, therefore they don't prevent infection, therefore they don't prevent disease.**

Lyme vaccines also pose the added risk of inducing Lyme related arthritis which is an immune disorder, which is much worse than Lyme disease itself.

If you MUST vaccinate for Lyme, use outer surface protein only.
In case of doubt, treat according to the dog, not the test results.

**Do not use giardia vaccines.

****Lepto vaccines are the most reactogenic, have a short duration of immunity (2-6 mos!), serologic results can indicate Lepto, but not which strain, most infections are sub-clinical.**

****Bacterial vaccinations are the riskiest, and should not be combined with the viral vaccines. (Bordatella, Leptospirosis, Borrelia)**