

# The Great Vaccine Controversy

- by Chris Taylor DVM

Probably no subject more than vaccination has caused such distress and acrimony within the veterinary profession. Many people are completely unaware of the tempest brewing within the veterinary community over this seemingly minor and routine procedure performed upon their cherished pet.

Many of our veterinary clientele are educated to the level of bringing Fluffy and Fido in for their annual “shots”, believing that only this harmless action will save their precious one from all manner and ever-present danger of lurking infectious disease. A smaller number, no less educated, have a morbid fear of anything in a syringe approaching their pet, for fear of a near instantaneous and horrible death. While these may seem like extreme characterizations, veterinarians see these people on a near daily basis. The truth is, neither client is correct, but neither is completely wrong either, like many things the truth resides in the “grey areas”.

It is absolutely undeniable that vaccination has saved the lives of our pets in untold millions. Seriously. If you talk to the “old-timers”, the veterinarians who now approach retirement age or a little older about distemper in dogs, you will understand what I mean. Read some of those old James Herriot books, he’ll tell you. It wasn’t pleasant, it was common, and once they got it there was nothing you could do. And there still isn’t. But the vaccine does work. Similarly, talk to any vets who were practicing in the early 1980’s about parvovirus. You’ll hear horror stories about hospital wards being overcrowded with pets on intravenous, hoping to keep them alive long enough for their immune systems to recover enough to shake the nastiest hemorrhagic vomiting and diarrhoea disease any of them had ever seen. Again, the development of an effective vaccine has saved incredible numbers of dogs and excruciating death, and saved pet owners heartache and the costs of expensive medical care. In a like fashion, our feline friends have benefited from vaccination for diseases like feline distemper, herpes and calicivirus. If you want to see what these diseases can do to unprotected cats you have to look no further than the local SPCA or local barn cat population. Our animal control policies for feral cats are still woefully inadequate, and disease still runs rampant in nearly all communities. My last example is probably the shortest and easiest to follow, unless you need to read the reference. The example is Rabies (which the French call “La Rage”, a far more descriptive name), for references see “Old Yeller”.

These diseases are REAL, and they are HORRIBLE. They are also still out there, albeit far less common than prior to routine vaccination practices. Some veterinarians see them less often than others, depending upon where they practice and for how long. Often they appear in outbreaks after long stints of quiet. We don’t usually know why – maybe its wildlife acting as a reservoir of infection, maybe it’s a feral animal coming into the area, or maybe it’s a pet that migrates in with unknowing owners.

Some people see vaccines as a form of ultimate evil that is guaranteed death or serious illness for their pet should it ever be administered! The claims range well into the absurd, about death and illness months and years later in a multitude of ways. Some published books make me shake my head in disbelief that someone could write, let alone believe, such crackpot “science”. That being said however, it is an utmost truth that vaccination is not a completely benign practice. The syndrome of “vaccinosis” is real, some of our pets will suffer malady as a result of being vaccinated. Fever and lethargy are common effects of vaccination. Allergic or other hypersensitivity reactions are less common, but also real. (This is why I am not in favour of clients vaccinating their own animals.) Other long-term illnesses get much harder to prove, but some are suspected. Certain breeds or breedlines are also known to be more sensitive to certain vaccines. Vaccine manufacturers are required to list the incidence levels of various reactions on the product monograph, just as they are for any other pharmaceutical, and are required to keep track of adverse events. This brings me to the next issue.

Vaccines are in the end a matter of POPULATION health, not of the INDIVIDUAL. This is because that is how the data is, and must be, analyzed. To study a vaccine we vaccinate part of a POPULATION at risk, and compare the results with statistics. What we are left with are statistics about the different

POPULATIONS, not the individuals. For example, if we vaccinate 100 kittens against distemper we might find that if they are exposed to the live virus, maybe only 20 would die, versus say 90 out of 100 unvaccinated kittens. If we perform the test differently by repeating the vaccination a few weeks later prior to the exposure, we might now discover that 95 of the kittens survive. This protocol is said to have a 95% efficacy. But remember this means that 5% of the kittens still died. There are always going to be some that are unprotected – but we do not know WHICH ones. Remember also that in the unvaccinated cats 10% will live anyhow, so the best we can really only claim for increased survival by vaccinating is 85%. So matter how many times you vaccinate, there will always be a few individuals in the population that are not protected. Furthermore, the more you vaccinate the greater the proportion of negative reactions you are going to see. This means that vaccinating comes down to a risk assessment between vaccinating enough and not too much. Add to this the complication of people who do not vaccinate, maybe because they do not see that disease as being very prevalent. If that pool becomes big enough, things are ripe for an outbreak, killing 90% of the unvaccinated cats AND 5% of the vaccinated cats who were otherwise protected by all the healthy vaccinated cats around them. Confused yet? This can just be the beginning! It comes down to a lot of math, something most people are not very interested in doing during a 20 minute appointment with their veterinarian!

So the question is not whether vaccination is a good thing – it is – but how do we minimize its adverse effects while maintaining the benefits? The answer is to identify the populations AT RISK properly. These are things you veterinarian needs to ask you. Veterinarians know what your pet's risk factors are for certain diseases, and knowing that can make the recommendation as to what needs to be done. There are no proven alternatives to vaccination, but there are some ways around continual annual vaccination.

A big problem for us as veterinarians is we do not generally know for how long the immune response will last for. The longevity studies have not been done. Think about it. Remember those 200 kittens? The Vaccine Company will have to keep exposing them to the virus every year, and measuring how many get sick and die. Is that economically feasible, let alone ethical??? So don't expect those numbers anytime soon...

One way around annual vaccination is the measuring of antibody titres, or immune response to some diseases. We don't know specifically that such-and-such a titre is protective, but it can give strong suggestions of it. The idea is akin to being tested on your parallel parking on your Driver's Test – it doesn't say anything directly about your ability to drive around town, but if you can do that hopefully you've learned the other aspects of driving too! Titres are also usually only measured against a few of the diseases we actually vaccinate for, and leaves the question open as to whether the pet is protected against the other diseases as well. Lastly, the expense of performing titres is significantly more than that of simply revaccinating. It cannot be ignored that cost is a major decision-maker for many of our clients. We simply need more hard data to make sound decisions based on titres.

Another common way annual revaccination is avoided is by simply switching to a less frequent interval, playing a best-guess type of scenario. This might work, but then remember the statistics – there will be less reactions, but there will also be less protection and of course its all based upon a guess, there is no evidence that this is or is not an effective protocol.

The most frustrating thing of all for veterinarians are the vaccine conspiracy theorists. Those who whisper in our clients' ears, telling them that all veterinarians are in collusion to make pets continually sick in order to line their pockets. Strange how these same people always want you to buy THEIR book, or feed THEIR special diet... Let me tell you this, and it applies to most of the veterinarians I know. I moved into veterinary medicine because of a combination of a fascination with the biological sciences, an aptitude for dealing with people, a love of pets, and a strong desire to do meaningful, practical work. In spite of eight years of university education and thousands of hours of continuing education, we still get accused of this. If so we are not very smart after all are we? I mean, we could have run a small time dog obedience course for a year, and then just written a book to sell on the internet for a lot less time and money... And still, you can bet its not the vet they believe when a person is told by their neighbor's Aunt Myrtle that the

REAL reason their healthy dog developed bloat and died was that it was vaccinated a month earlier “but the vets will never admit it”!

I hope this information helped you. Remember if in doubt about your pet, at least ASK your veterinarian.