

Annual Dog Vaccines May Be Unnecessary

Study: Overvaccination May Jeopardize Dog's Health

POSTED: 4:27 pm EST March 17, 2003

Once a year, Ronald Schultz checks the antibody levels in his dogs' blood. Why? He says for proof that most annual vaccines are unnecessary.

Schultz, professor of pathobiological sciences at the University of Wisconsin-Madison School of Veterinary Medicine, has been studying the effectiveness of canine vaccines since the 1970s; he's learned that immunity can last as long as a dog's lifetime, which suggests that our "best friends" are being overvaccinated.



Based on his findings, a community of canine vaccine experts has developed new veterinary recommendations that could eliminate a dog's need for annual shots. The guidelines appear in the March/April issue of *Trends*, the journal of the American Animal Hospital Association.

Every year, when we take our dogs to the veterinarian's office, they could receive up to 16 different vaccines, many of which are combined into a single shot. Four of these products protect against life-threatening diseases, including rabies, canine parvovirus type 2, canine distemper virus and canine adenovirus type 2; the rest protect against milder diseases to which only some dogs are exposed, including Lyme disease.

But, as many veterinarians are realizing, overvaccination can actually jeopardize a dog's health. Side effects can cause skin problems, allergic reactions and autoimmune disease. And in cats, tumors have been reported at the site of vaccine injections.

"These adverse reactions have caused many veterinarians to rethink the issue of vaccination," Schultz said. "The idea that unnecessary vaccines can cause serious side effects is in direct conflict with sound medical practices."

For 30 years, Schultz has been examining the need to vaccinate animals so often and for so many diseases.

"In the 1970s, I started thinking about our immune response to pathogens and how similar it is in other animals," Schultz said. "That's when I started to question veterinary vaccination practices."

Just like ours, a canine's immune system fires up when a pathogen, like a virus, enters the body. The pathogen releases a protein called an antigen, which calls into action the immune system's special disease-fighting cells. These cells not only destroy the virus, but they remember what it looked like so they can fend it off in the future.

It's this immunological memory that enables vaccines, which purposely contain live, weakened or dead pathogens, to protect against future disease.

But, as Schultz points out, vaccines can keep people immune for a lifetime: We're usually inoculated for measles, mumps and rubella as children but never as adults. So, can dogs be vaccinated as pups and then never again?

While evidence from Schultz's studies on both his own dogs and many other dogs from controlled studies suggests the answer is yes, Schultz recommends a more conservative plan based on duration of immunity and individual risk.

Schultz said that core vaccines, or the ones that protect against life-threatening disease, are essential for all dogs, yet he does not recommend dogs receive these shots yearly. He said that, with the exception of the rabies vaccine, they should last at least seven years. Rabies shots, on the other hand, have shown to last about three years.

For these reasons, Schultz suggests that dogs receive rabies shots every three years (as is required by law in most states) and the other core vaccines no more frequently than every three years.

Some less serious vaccines, on the other hand, have a much shorter duration of immunity, lasting around one year. But, as Schultz points out, not every dog should get these types of vaccines, because not every dog is at risk for exposure.

Today, many vaccinated dogs receive a shot for Lyme disease. But Schultz said that the ticks carrying the Lyme disease pathogen can be found in only a few regions of the United States.

"The vaccine can cause adverse effects such as mild arthritis, allergy or other immune diseases. Like all vaccines, it should only be used when the animal is at significant risk," he said.

Another common vaccine that Schultz says is unnecessary protects against "kennel cough," an often mild and transient disease contracted during boarding or dog shows.

"Most pet dogs that do not live in breeding kennels, are not boarded, do not go to dog shows and have only occasional contact with dogs outside their immediate family, rarely need to be vaccinated or revaccinated for kennel cough," he said.

Schultz said it's important for veterinarians to recognize an individual dog's risk for developing a particular disease when considering the benefits of a vaccine. Giving a vaccine that's not needed creates an unnecessary risk to the animal, he said.

Schultz admitted that recommending that dogs receive fewer vaccines may spark controversy, especially since many veterinarians rely on annual vaccines to bring in clients, along with income.

But annual visits are important for many reasons other than shots.

"Checking for heartworm, tumors, dermatological problems and tooth decay should be done on a yearly basis," he said. "Plus, some dogs, depending on their risk, may need certain vaccines annually."

Rather than vaccinating on each visit, veterinarians can use a recently developed test that checks dogs' immunity against certain diseases.

Schultz said veterinarians who have switched to the three-year, instead of annual, vaccination program have found no increase in the number of dogs with vaccine-preventable diseases.

"Every day, more and more people in the profession are embracing the change," Schultz said. The new vaccination guidelines are supported by the AAHA, along with the task force members representing the American Colleges of Veterinary Internal Medicine, Veterinary Microbiology and the American Association of Veterinary Immunologists.

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