

To Prevent and Protect

One size does not fit all when it comes to canine vaccination.

Kyra Kirkwood

Annual vaccinations are as much a part of responsible dog ownership as ID tags and obedience training. But in recent years, the tide has shifted, and times have changed. No one disputes that canine vaccines are required and vital, but what is up for discussion is the length of immunity these vaccines provide, and the recommended vaccination schedule.

Veterinarians and researchers across the country are embracing individualized vaccination guidelines, with some vaccines administered every three years instead of annually. In 2006 the American Animal Hospital Association Canine Vaccine Task Force published updated guidelines. Proponents of the AAHA guidelines believe that giving dogs vaccines for diseases for which they already have immunity may be unnecessary at best, possibly leading to chronic allergies or autoimmune diseases at worst.

“The thing we want is to have animals vaccinated no more frequently than necessary,” says Michael A. Paul, DVM, chairperson of the AAHA task force. “The benefits have to be better than the risk to make it worthwhile. There’s no added benefit to vaccinating dogs more frequently.”

Dogs are now thought to maintain immunity far longer than 12 months for many of the core vaccines, which protect against life-threatening diseases such as distemper, parvovirus, and adenovirus-2 — a hepatitis and respiratory infection. Some experts think that upon completion of puppy vaccinations and one-year boosters, dogs may retain five- to seven-year or even lifetime immunity. But this has yet to be proven scientifically. Clinical studies for such proof would be difficult and possibly inhumane, so many veterinarians have adopted a three-year compromise. Other non-core vaccines, which protect against such things as Lyme disease and bordetella are still recommended more frequently or on an as-needed basis.

“I think the vaccination guidelines are appropriate and can be used by veterinarians to practice evidence-based medicine,” says Larry Glickman, VMD, professor of epidemiology and environmental medicine at Purdue University School of Veterinary Medicine. “It leaves enough leeway for each veterinarian to interpret the guidelines according to their practice and for individual patients.”

But tailoring vaccinations to the individual isn’t a novel practice; some veterinarians have been doing this for decades, says Don Klingborg, DVM, associate dean at the University of California, Davis, School of Veterinary Medicine. He’s also the former chairperson of the American Veterinary Medical Association’s Council on Biologic and Therapeutic Agents which conducted a study on small-animal vaccines.

All we’re doing now is saying there’s some science that supports vets who have been customizing vaccination schedules, he says. “Every patient that walks through the door has a different need.”

One size does not fit all

Veterinary experts emphasize two things: Vaccines are not optional, and the AAHA guidelines are just that — guidelines, not blanket recommendations or the gospel truth.

“Any guideline that says revaccinate within such and such a period is an arbitrary guideline,” Klingborg says. “They’re definitely not on stone tablets. And they’ll change. We’ll see them morph again.”

The key is for owners to work with their veterinarians one on one, discussing the guidelines as well as their dogs’ individual needs. The three-year plan works for “many, maybe most,” Klingborg says. “For most animals, every vaccine every year is not necessary to provide protection. But for some animals, it might be.”

Klingborg explains that dogs living in certain parts of the country, facing specific exposures, or receiving different brands or formulations of vaccines all require individualized recommendations.

After the initial round of puppy vaccines and boosters at one year, core vaccines, including one for rabies, are recommended every three years. However, in some cities and states, a one-year rabies vaccine is required by law.

Non-core vaccines that prevent less common illnesses, such as leptospirosis and Lyme disease, are recommended on an

as-needed basis. Some are given annually, others every three years, some not at all, depending on the dog, risk level, severity of the disease, and the situation. For example, if a dog is boarded often or competes in dog shows, he likely needs an annual or more frequent bordetella vaccine, depending on exposure. The same dog may only need a parainfluenza vaccine every three years. The AAHA guidelines do not recommend vaccines for coronavirus or Giardia. (To learn the symptoms, prognoses, and vaccination guidelines for the most prevalent canine diseases, [click here](#))

For a number of vaccines, the updated revaccination guidelines say that one to three years “is considered protective.” Paul says, “They’re probably good for 10 years, but we don’t have the strength of conviction to say that yet. I feel very comfortable in saying that if we vaccinate dogs every three years, we’re doing them no harm.”

Overvaccinating dangers

As with any medical procedure, vaccination involves some risk. More often than not, the benefit far outweighs the risk. But in some circumstances, dogs experience swelling, allergic reactions, pain, or even overstimulated immune systems that attack the dog’s own tissue, resulting in blood, nervous system, thyroid, or skin diseases. However, symptoms may not develop until months after vaccination.

“The risk of an adverse reaction following vaccination increases as the size of the dog decreases and the number of vaccines administered on the same day increases,” says Glickman, who is also senior director of clinical research at Banfield The Pet Hospital in Oregon. In other words, the size of your dog, and the number of vaccines given at one time can both have an impact on the chance of a reaction. Sick, pregnant, recently bred, and elderly dogs, as well as those who have had vaccine reactions or are scheduled for surgery, should be evaluated before — and if — they’re vaccinated.

One way to help you decide if your dog should be revaccinated for a disease is with titer tests, which determine levels of immunity. These blood tests measure the amount of antibody protection in the bloodstream. High levels of antibodies theoretically prove immunity to disease; low levels do not.

But that’s not unfailingly true. Although titers can’t hurt, they shouldn’t be taken as infallible, either. Problems arise in the way different labs evaluate the tests, as well as the tests’ abilities to determine immunity for each disease. Some dogs may actually be immune, yet their blood titers show otherwise.

When it comes to vaccinating your dog, determine your own comfort level with the risks and benefits. Have a heart-to-heart talk with your vet about your options. Tell him or her about your dog’s activities and general health, possible exposure to disease, and any travel plans. Then, together, you can make an informed decision.

“The vet and the owner have to talk about how the animal lives ... in order to determine the risk to that animal,” Klingborg says. “You need to make sure you’re having a discussion to come up with a plan that best meets your animal’s needs.”

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