include fever, stiffness, sore joints, abdominal tenderness, nervous system disorders, susceptibility to infections, and hemorrhages or bruising. Transient seizures can appear in puppies and adults. More long-term harmful effects can result in permanent damage to the dog's immune system, which increases the dog's susceptibility to chronic, debilitating diseases affecting the blood, endocrine organs, joints, skin, central nervous system, liver, kidneys, and bowel. In addition, vaccines can overwhelm a chronically ill dog, or a dog that has a genetic predisposition to react adversely to viral exposure, even from the modified live viral agents or killed virus in vaccines. So, given the possible health risks of administering too many vaccines, especially when a dog likely retains the immunologic protection supplied by previous vaccinations, how can a responsible dog owner decide on a safe and effective vaccine schedule for the life of their dog? As we suggested earlier, the answer is titer tests.

Understanding titer tests

The term "titer" refers to the strength or concentration of a substance in a solution. When testing vaccine titers in dogs, a veterinarian takes a blood sample from a dog and has the blood tested for the presence and strength of the dog's immunological response to a viral disease. If the dog demonstrates satisfactory levels of vaccine titers, the dog is considered sufficiently immune to the disease, or possessing good "immunologic memory," and not in need of further vaccination against the disease at that time.

Using the new TiterCHEKTM test kit, your veterinarian can now draw blood from your dog when you first arrive for his annual health exam, and within 15 minutes, be able to tell you whether or not he needs any vaccines.

Titer tests do not distinguish between the immunity generated by vaccination and that generated by natural exposure to disease agents. A dog may have developed immunity to a viral disease by receiving a vaccine against the disease, by being exposed to the disease in the natural environment and conquering it, sometimes without having demonstrated any symptoms of exposure to the disease, or by a combination of the two. Therefore, titer tests really measure both the "priming of the pump" that comes from vaccines, and the immunity resulting from natural exposure to disease during a dog's lifetime. Only an indoor dog that has been totally sequestered from the natural environment is likely to have developed all of its immunity from vaccinations. Although the magnitude of immunity protection received by vaccination only is usually lower than by vaccination plus exposure, it doesn't matter how your dog developed its strong immunity to specific viral diseases, as long as the immunity is present. By "titering" annually, a dog owner can assess whether her dog's immune response has fallen below adequate levels. In that event, an appropriate vaccine booster can be administered.

Which titers tests?

Some dog owners, aware that there are dozens of vaccines available, are concerned that they would need to order titer tests for each vaccine. Actually, measuring the titers for just two vaccines, according to Dr. Dodds, can offer the dog owner a reliable "picture" of the dog's immunological status. Good immunity to canine parvovirus (CPV) and canine distemper virus (CDV), she says, indicates proper "markers for the competence of the dog's immune system." Although the laboratories will also perform vaccine titer tests for other canine diseases, such as coronavirus and Lyme, Dr. Dodds deems these tests a waste of money. Protection from coronavirus, Dr. Dodds explains, depends on the current state of health of the dog's gastrointestinal tract, not on what's in the dog's blood, so serum tests are not conclusive. Lyme is