

# FAQs: VACCINE ISSUES

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W. Jean Dodds, DVM  
Hemopet/Hemolife  
[www.hemopet.org](http://www.hemopet.org)

**Q. Is there risk of overvaccinating with vaccines not needed for a specific animal ?**

**A.** Yes. Vaccines contain material designed to challenge the immune system of the pet, and so can cause adverse reactions. They should not be given needlessly, and should be tailored to the pet's individual needs.

**Q. Are the initial series of puppy core vaccines immunosuppressive ?**

**A.** Yes. This period of immuno suppression from MLV canine distemper and hepatitis vaccines coincides with the time of vaccine-induced viremia, from days 3 to 10 after vaccination.

**Q. Can smaller doses of vaccines be given to toy dog breeds ?**

**A.** Yes, they can, although some vaccinologists believe that the whole amount should be given because it represents the minimum immunizing dose. My view is that a half dose of vaccines, other than rabies, as required by law, should suffice and would be safer.

**Q. Can anesthetized patients be vaccinated ?**

**A.** This is not preferred, because a hypersensitivity reaction with vomiting and aspiration could occur and anesthetic agents can be immunomodulating.

**Q. Is it safe to vaccinate pregnant pets ?**

**A.** Absolutely not.

**Q. Should pets with immunosuppressive diseases such as cancer or autoimmune diseases, or adverse vaccine reactions/ hypersensitivity receive booster vaccinations ?**

**A.** No. Vaccination with MLV products should be avoided as the vaccine virus may cause disease; vaccination with killed products may aggravate the immune-mediated disease or be ineffective. For rabies boosters that are due, local authorities may accept titers instead.

**Q. If an animal receives immunosuppressive therapy, how long afterwards can the pet safely be vaccinated ?**

**A.** Wait at least 2 weeks.

**Q. Should vaccines be given more often than 2 weeks apart even if a different vaccine is being given ?**

**A.** No. The safest and most effective interval is 3-4 weeks apart.

**Q. At what age should the last vaccine dose be given in the puppy and kitten series ?**

**A.** The last dose of vaccine should be given between 14-16 weeks. Rabies vaccine should preferably be given separately as late as possible under the law (e.g. 20-24 weeks).

**Q. Can intranasal *Bordetella* vaccine be given parenterally ?**

**A.** No. The vaccine can cause a severe local reaction and may even kill the pet.

**Q. Will a killed parenteral *Bordetella* vaccine given intranasally produce immunity ?**

**A.** No.

**Q. Can MLV parenteral vaccines for cats be used intranasally ?**

**A.** Never. Any mucosal (e.g. conjunctival and nasal) contact with these vaccines can cause disease.

**Q. Are homeopathic nosodes capable of immunizing pets ?**

**A.** No. There is no scientific documentation that nosodes protect against infectious diseases of pets. The one parvovirus nosode trial conducted years ago did not protect against challenge.

**Q. Should disinfectant be used at the vaccine injection site?**

**A.** No. Disinfectants could inactivate a MLV product.

**Q. Can vaccines cause autoimmune diseases?**

**A.** Vaccines themselves do not cause these diseases, but they can trigger autoimmune responses followed by disease in genetically predisposed animals, as can any infection, drug, or chemical / toxic exposures etc.

**Q. Can a single vaccine dose provide any benefit to the dog or cat? Will it benefit the canine and feline populations?**

**A.** Yes. One dose of a MLV canine or feline core vaccine should provide long term immunity when given to animals at or after 16 weeks of age. Every puppy and kitten 16 weeks of age or older should receive at least one dose of the MLV core vaccines. We need to vaccinate more animals in the population with core vaccines to achieve herd immunity (e.g. 75% or higher, when probably only 50% of dogs and 25% of cats are vaccinated) and thereby prevent epidemic outbreaks.

**Q. If an animal receives only the first dose of a vaccine that needs two doses to immunize, will it have immunity ?**

**A.** No. A single dose of a two-dose vaccine like Leptospirosis or feline leukemia vaccine will not provide immunity. The first dose is for priming the immune system. The second for boosting the immunity has to be given within 6 weeks; otherwise the series has to start over again. After those two doses, revaccination with a single dose can be done at any time.

**Q. Can maternally derived antibodies (MDA) also block immunity to killed vaccines and prevent active immunization with MLV vaccines ?**

**A.** Yes. MDA can block certain killed vaccines, especially those that require two doses to immunize. With MLV vaccines, two doses are often recommended, particularly in young animals, to be sure one is given beyond the neutralizing period of MDA.

**Q. How long after vaccination does an animal develop immunity that will prevent severe disease when the core vaccines are used?**

**A.** This is dependent on the animal, the vaccine, and the disease.

- The fastest immunity is provided by CDV vaccines -- MLV and recombinant canarypox virus vectored. The immune response starts within mins - hrs and provides protection within a day without interference from MDA.
- Immunity to CPV-2 and FPV develops after 3-5 days when an effective ML V vaccine is used. In contrast, killed FPV-2 vaccine often takes 2 - 3 wks or longer to provide protective immunity.
- CAV-2 MLV given parenterally provides immunity against CAV-1 in 5 to 7 days.
- Time from vaccination to immunity is difficult to determine for FCV and FHV-1 because some animals will not develop any immunity.

**Q. Can dogs and cats be “non-responders” and fail to develop an immune response to vaccines ?**

**A.** Yes. This is a genetic characteristic seen particularly in some breeds or dog families. Boosting them regularly will not produce measurable circulating immunity, but they may be protected against

disease by their cell-mediated and secretory immunity.

**Q. Are there parvovirus and distemper virus field mutants that are not adequately protected by current MLV vaccines ?**

**A.** No. All the current CPV-2 and CDV vaccines provide protection from all known viral isolates, when tested experimentally as well as in the field. The current CPV-2 and CPV-2b vaccines provide both short and long term protection from challenge by the CPV-2c variant.

**Q. Are serum antibody titres useful in determining vaccine immunity?**

**A.** Yes. They are especially useful for CDV, CPV-2 and CAV-1 in the dog, FPV in the cat, and rabies virus in the cat and dog. Rabies titers, however, are often not acceptable to exempt individual animals from mandated rabies boosters in spite of medical justification. Serum antibody titers are of limited or no value for the other vaccines.

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