

VACCINATION AND PARVOVIRUS IN PUPPIES

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One of the issues of concern to any vet doing companion animal practice is the case of puppies getting sick with signs of Parvovirus after having been vaccinated. Owners sometimes feel that the vaccination is the cause of the illness and that it was either bad, ineffective or improperly done. But what is really happening?

Parvovirus infection, which causes vomiting, bloody diarrhea and death, is one of the major threats to growing puppies. In the first few weeks of life, puppies are protected from Parvo by "passive" immunity transferred from their mother in the first milk (colostrum). This protection diminishes gradually and eventually a pup's own system has to generate its own "active" immunity. This process is aided by vaccination, but if the maternal passive protection is too high, it can interfere with the action of the vaccine, hence the need for repeated "shots".

When a vaccine is injected, it does not confer instant protection. It has to be processed by the immune system and in about 10 days (first vaccination) or 4 days ("booster" vaccinations), antibodies and immune cells are produced which can fight and prevent the real infection when encountered. The level of protection gets higher and more effective with each "booster". It can be likened to repeated recruitment drives for an army to defend against invasion. The defending army has to be of a size capable of defeating the invaders. For best results, the puppy should be in good overall health and free from parasites or any sign of disease. Unfortunately there are some individuals who nevertheless respond poorly, or not at all.

So in the case of Parvo, we are in a race with a virus that is common, widespread, highly contagious, can survive in the environment for years, and causes a life-threatening illness, to get the puppy immunized before the actual disease strikes. Most often, we get to the finish line first, but sometimes the virus wins and we end up with sick puppies before the immunization process is complete.

In some cases, illnesses other than Parvo such as worms, Coccidiosis, Giardiasis or bacterial infections are involved. If combined with Parvo the result is even more likely to be deadly.

Keeping the puppy as protected as possible during the critical period of the vaccination process is a vital practice. Good sanitary procedures, proper nutrition, restricting movement through places frequented by other dogs or people can help. Of course, any sign of illness during the vaccination process and beyond should be reported to your vet as soon as possible.