



FACT SHEET

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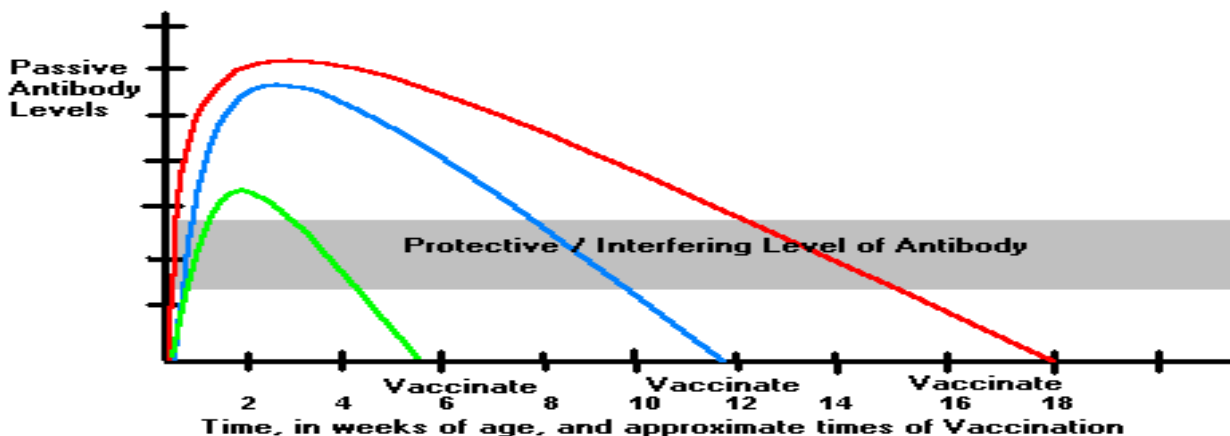
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Puppy Care Vaccination Schedules

One of the first things the owner of a new puppy wants to do is protect their new pet from common canine diseases. Most puppies receive protective antibodies from their mothers when they nurse *colostrum*, the milk produced in the first 48 hours after their birth. These antibodies from mom are referred to as “passive antibody”, because the mother produced it, but it is protecting the puppies. These antibodies will protect puppies from the diseases that their mother has antibodies for, but will eventually “run out”. The puppy’s immune system must be stimulated to produce its own new, “active” immunity -- they cannot make a “copy” of their maternal antibody.

Vaccinations are designed to stimulate the immune system without risking illness by using a modified version of the organism. This gives the immune system a chance to recognize and respond to a disease-causing agent without the risk of actually getting the disease. Later, if exposed to the “real” organism, the pup’s immune system is ready to protect the pup. However, the same antibodies that they get from their mother that are supposed to protect them from disease, are also “protecting” them from the vaccine. We know that if these maternal antibodies are still above a protective level, they will neutralize the vaccination by attaching to the same sites on the virus that the pup’s immune system needs to “see”. To counteract this effect, puppies usually receive a *series* of vaccinations against diseases such as Canine Distemper, Canine Hepatitis (Adenovirus), Leptospirosis, Parainfluenza, and Parvovirus. If one dose does not “work”, because of the persistence of maternal antibody, then a later one will. The vaccines are administered in 3 week intervals until the pup reaches the age of 14 - 16 weeks, at which time the antibody from mom is gone, and virtually all pups should respond to the vaccine. Some pups receive less antibody, and respond at an earlier age. The figure below illustrates how passive antibody levels rise quickly after nursing, then drop off over time, and how the timing of vaccinations is intended to stimulate the puppy’s immune system as they do so.



Some diseases, such as Rabies, have a very low probability of exposure, so vaccinations for them are not given until later, and only one dose is necessary to produce the desired response. After the initial, or “primary” immunizations, “booster” doses are given at prescribed intervals (usually 1 to 3 years) to maintain protective levels of antibody.

