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WHY WE VACCINATE PUPPIES

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I give vaccinations to puppies almost every day and I am surprised how often people tell me, “As long as the dog gets three vaccinations they are protected.” This is not always true and I thought it might be time to explain why we give a series of vaccines to puppies. When puppies are born their immune systems are naïve, meaning that they do not recognize invading bacteria and viruses as foreign and mount a defense. Within the first 24 hours of birth, the milk they suckle from mom contains antibodies that will protect them. But these antibodies are temporary. If the puppy gets only a little or no antibody from mom, the protection is very short lived and the puppy will be susceptible to infection early in life. If the puppy gets a lot of antibody, the puppy will be protected for up to 16 weeks.

But here is the catch; those antibodies they get from mom attack the bacteria and viruses in the vaccination too. So the puppy’s immune system does not get a chance to be stimulated and develop its own immune response if mom’s antibodies from the milk are still around. The puppy’s immune system will only develop its own defense system once the antibodies it gets from mom are gone. This means every puppy goes through a period of time when it is very susceptible to infection; the time between when mom’s antibodies are gone and the puppy’s own immune system is stimulated.

We give a series of vaccination to puppies starting from about 6 to 8 weeks of age until the puppy is 16 weeks old, usually about every 3 to 4 weeks. This is to narrow the window of time the puppy is open to infection. If the puppy got only a small amount of antibody from the mom, its immune system will respond to the 8 week shot. If it gets a large antibody from the mom, it will respond to the 8 week shot. You can see from this that it is way more important when the shots are given than how many.

If we knew how much protective antibody a puppy got from its mom, we could better predict when its time of susceptibility would be, but we don’t. This is why we should not knowingly expose a puppy to disease until after it has received its 16 week shot. This means avoiding places other dogs frequent, such as the dog Park, city parks, and rest areas on the interstate, and boarding facilities. If you know someone with a healthy dog that is vaccinated with an enclosed yard, this is a good place for your puppy to have a play date until it has received all of its puppy vaccinations.

One last note; vaccines are made of proteins that stimulate our immune system in specific ways. If the proteins are changed, say by heat or freezing, they are no longer effective at stimulating the production of protective immunity. So how the vaccine is shipped and handled is very important to how well it works to produce immune response. Make sure

the vaccine you buy is handled correctly by ensuring the people at the location you get it are trained in properly.