

Vaccines

By Dr. Hannah Bigelow, DVM

Why do large and small breed dogs receive the same amount of vaccine? To answer this question we need to understand what vaccines are and how they work. Vaccines create an immune response without causing severe damage or death to the host. The body has a specialized system which evolved to prevent illness. This system reacts to intruders (antigens) and develops specialized cells and mediators to protect the body. When we give a vaccine, modified antigens are administered to activate this system, which, in turn, protects the body without causing illness or death.

Vaccines, unlike pharmaceuticals, are not dose dependent. Only enough antigen is given to stimulate an immune response. A 200 pound adult human has the same immune system as a 10 pound baby, and consequently receives an equal amount of vaccine. The same concept applies to dogs. Their immune systems are identical and they need to receive the equivalent amounts of vaccine in order to be protected from disease. If the entire vaccine is not given there may not be enough antigen to induce protective immunity and your dog may still be at risk for disease. Both small and large breed dogs can have adverse reactions to vaccines. Reducing the amount of vaccine administered has not been shown to enhance safety or reduce vaccine reactions. Also, depending on the state you live in, administering less than the recommended dose of a rabies vaccine is off-label use. If your dog is bitten or bites another dog the vaccine may not be recognized by state or local law. Vaccines must be given as directed in order to protect your pet effectively.

