

## **What you should know about vaccinations** Revised June 2008

*Pets, like people, can be protected from some diseases by vaccination. Although this brochure provides basic information about vaccinations for your dog or cat, your veterinarian is your best source for advice regarding individualized care.*

### **Q: What are vaccines?**

A: Vaccines are products designed to trigger protective immune responses in pets and prepare them to fight future infections from disease-causing agents.

Vaccines can lessen the severity of future diseases and certain vaccines can prevent infection altogether. Today, a variety of vaccines are available for use by veterinarians. Some vaccines are administered via injections using a syringe and needle, and others are administered into the animal's nose or directly into the skin (transdermally). Other methods of administration are currently under development.

### **Q: Is it important to vaccinate?**

A: Yes! Pets should be vaccinated to protect them from many highly contagious and deadly diseases. Experts agree that widespread use of vaccines within the last century has prevented death and disease in millions of animals. If an unvaccinated pet develops one of these diseases, treatment can become very expensive and many of these diseases can be fatal despite treatment. Even though some formerly common diseases have now become uncommon, vaccination is still highly recommended because these serious disease agents continue to be present in the environment.

It is also important to remember that pets can be vaccinated for some zoonotic (pronounced ZOE-oh-not-ick) diseases, which are diseases that can be spread from animals to people. For example, rabies is a serious, often fatal, disease that can spread from infected animals to people. By vaccinating your pets for rabies, you are protecting your family as well as your pet.

### **Q: Does vaccination ensure protection?**

A: For most pets, vaccination is effective in preventing future disease. Occasionally, a vaccinated pet may not develop adequate immunity and, although rare, it is possible for these pets to become ill if exposed to the disease. These gaps in protection should be as short as possible to provide optimal protection against disease for the first few months of life. It is important to remember that although breakdowns in protection do occur, most appropriately vaccinated pets are able to successfully fight off disease — reinforcing the importance of vaccines in your pet's preventive health care program.

### **Q: Are there risks?**

A: Any treatment carries some risk, but these risks should be weighed against the benefits of protecting your pet from potentially fatal diseases. Most pets respond well to vaccines. The most

common adverse responses are mild and short-term, including fever, sluggishness, and reduced appetite. Pets may also experience temporary pain or subtle swelling at the site of vaccination. Although most adverse reactions will resolve within a day or two, any excessive or continued pain, swelling, or listlessness should be discussed with your veterinarian.

Rarely, more serious adverse reactions can occur. Allergic reactions appear within minutes or hours of a vaccination and may include repeated vomiting or diarrhea, whole body itching, swelling of the face or legs, difficulty breathing or collapse. Contact your veterinarian immediately if any of these symptoms are seen. In very rare instances, death could occur from an allergic reaction. There are other uncommon but serious adverse reactions, including injection site tumors (sarcomas) in cats, which can develop weeks or months after a vaccination. The best advice is to always tell your veterinarian about any abnormalities you notice after your pet has been vaccinated.

**Q: Why do puppies and kittens require a series of vaccinations?**

A: Very young puppies and kittens are highly susceptible to infectious diseases because their immune systems are not fully mature. While nursing, their mother's milk contains antibodies (special proteins) that provide some immunity to diseases; however, these maternal antibodies do not last long, and there may be gaps in protection as the milk antibodies decrease and the puppies' or kittens' immune system isn't yet capable of fighting off infection. In many instances, the first dose of a vaccine serves to prime the pet's immune system against the virus or bacteria while subsequent doses help to further stimulate the immune system to produce the antibodies needed to protect a pet from specific diseases. To keep these gaps in protection as small as possible and to provide optimal protection against disease in the first few months of life, a series of vaccinations are scheduled, usually 3-4 weeks apart. For most puppies and kittens, the final vaccination in the series is administered at about 4 months of age; however, in some situations, a veterinarian may alter this schedule based on an individual animal's risk factors. Remember that an incomplete series of vaccinations may lead to incomplete protection, making puppies and kittens vulnerable to infection.

**Q: Which vaccines should my pet receive?**

A: Not all pets should be vaccinated with all available vaccines. "Core" vaccines are recommended for most pets in a particular area because they protect from diseases most common in that area. "Non-Core" vaccines are reserved for individual pets with unique needs. Your veterinarian will consider your pet's risk of exposure to a variety of preventable diseases in order to customize a vaccination program for optimal protection throughout your pet's life. Talk with your veterinarian about your pet's lifestyle including its expected travel to other geographic locations and/or contact with other animals (such as exposure at kennels, obedience classes, shows, and dog parks) since these factors impact your pet's risk of exposure to certain diseases. For older pets, make sure your veterinarian is aware of any previous adverse reactions to vaccines.

**Q: How often should my pet be vaccinated?**

A: For many years, a set of annual vaccinations was considered normal and necessary for dogs and cats. There is increasing evidence to support that immunity triggered by some vaccines provides protection beyond one year while the immunity triggered by other vaccines may fail to protect for a full year. Consequently, one vaccination schedule will not work well for all pets. Your veterinarian will determine a vaccination schedule most appropriate for your pet.

**Q: What are antibody titers, and do they replace vaccination?**

A: Antibody titers are blood tests that measure the amount of antibodies in the blood. Following exposure to a disease-causing organism (such as a virus) or a vaccine, the body generates antibodies that help to destroy the organism and prevent or minimize illness if the body is exposed to the same organism again.

Antibody titers do not replace vaccination programs, but in some instances may help your veterinarian determine if your pet has a reasonable expectation of protection against disease. However, there are only a limited number of disease-causing organisms for which antibody titers can suggest your pet's level of protection and those antibody tests have limitations. Consequently, a higher antibody titer does not necessarily mean your pet will be protected if exposed to the disease, and a lower titer may not mean your pet's protection is lacking.

**A final thought** Many factors are taken into consideration when establishing a pet's vaccination plan. Your veterinarian will tailor a program of vaccinations and patient health care that will help your pet maintain a lifetime of infectious disease protection.