



# Feline Vaccines: Benefits and Risks

## St. Michael Veterinary Clinic

### WHAT IS THE IMMUNE SYSTEM: WHY IS IT IMPORTANT?

The immune system plays a pivotal role in maintaining your cat's health. One of the most important functions of the highly complex system of specialized cells and molecules is to protect cats from disease and infection caused by foreign invaders: viruses, bacteria, and a host of other microbes and parasites intent on assaulting the body and causing disease.

### WHAT DOES VACCINATIONS ACCOMPLISH?

Vaccines are given to prepare the body's immune system against invasion by a particular disease-causing organism. Vaccines contain antigens, which to the immune system "look" like the organism but don't, ideally, cause disease. When the vaccine is introduced by injection or some other means, the immune system responds by mounting a protective response. When the cat is subsequently exposed to the organism, the immune system is prepared, and either prevents infection or reduces the severity of disease.

### DOES MY CAT NEED EVERY VACCINE AVAILABLE?

No. The choice of which vaccines your cat should receive is dependent on several factors including:

- Your cat's risk of exposure to the disease-causing organism (in part dependent on the health of other cats to which yours is exposed, and the environment in which your cat lives)
- The consequence of infection.
- The risk an infected cat poses to human health (e.g., rabies).
- The protective ability of the vaccine.
- The frequency or severity of reactions the vaccine produces.
- The age and health status of your cat.
- Vaccine reactions your cat may have experienced in the past.

Your veterinarian will help guide you in deciding which vaccines are appropriate for your cat. The following vaccines are currently available:

### FELINE PANLEUKOPENIA VIRUS VACCINE

Feline panleukopenia (also called feline distemper) is a highly contagious and deadly viral disease of cats. Feline panleukopenia virus is extremely hardy, is able to survive extremes of temperature and humidity for many months and is resistant to most available disinfectants. Until recent years, panleukopenia was the most serious infectious disease of cats, claiming the lives of thousands every year. Thanks to the highly effective vaccines currently available, panleukopenia is now considered to be an uncommon disease. However, because of the serious nature of the disease and the continued presence of virus in the environment, vaccination is highly recommended for all cats.

### FELINE CALICI VIRUS/HERPES VIRUS VACCINES

Feline calici virus and feline herpes virus type 1 are responsible for 80-90% of infectious feline upper respiratory tract diseases. Most cats are exposed to either or both of these viruses at some time in their lives. Once infected, many cats never completely rid themselves of the virus. These "carrier" cats both continuously or intermittently shed the organisms for long period of time – perhaps for life – and serve as a major source of infection to other cats. The currently available vaccines will minimize the severity of upper respiratory infections, although none will prevent disease in all situations. Vaccination is highly recommended for all cats.

### **RABIES VIRUS VACCINE**

Rabies is an increasing threat to cats. At the present time, the number of reported feline rabies cases in the United States far exceeds that of all other domestic animals. Rabies in cats is also a major public health concern. Because of the routinely fatal outcome of infection in cats, and the potential for human exposure, rabies vaccination is highly recommended for all cats; it is required by law in most areas of the country.

### **WHY DO KITTENS REQUIRE A SERIES OF VACCINATIONS?**

Kittens receive antibodies from colostrum (the first milk the mother produces) that is ingested during the early hours after birth. Maternal antibody helps protect against infectious disease until the kitten's own immune system is more mature.

Unfortunately, maternal antibodies also interfere with a vaccine's ability to stimulate the kitten's immune system. To counteract this problem, veterinarians often administer a series of vaccines, usually beginning when the kitten is around six to eight weeks of age, and then repeating vaccination at three-to-four-week intervals until maternal antibody has waned, usually at around twelve weeks of age. In some cases (e.g., rabies vaccines) the initial vaccine is not given until maternal antibody has disappeared.

### **DOES MY ADULT CAT NEED TO BE VACCINATED EVERY YEAR?**

The answer depends upon the vaccine and to a large extent on your cat's risk level. Feline rabies vaccines provide protection for longer than one year. After the initial series is completed and boosted 1 year later a Rabies is adequate protection for 3 years. Research has provided evidence that panleukopenia/rhinotracheitis/calicivirus vaccines provide adequate protection for 3 years after the initial series is completed and boosted 1 year later. Feline Leukemia is an annual vaccine after initial series is completed.

### **ARE VACCINES DANGEROUS?**

Not usually. Unfortunately, a perfect, risk-free vaccine does not exist. Without question, vaccines have saved countless lives, and they continue to be indispensable weapons in the battle against feline infectious disease. But as with any medical procedure, there is small chance that reactions may develop as a result of vaccination. In most cases, the risks associated with vaccination are much smaller than the risks of disease if vaccines were not given. But to minimize the risk, before your cat is vaccinated, please inform your veterinarian of any problems your cat is experiencing or any medication your cat is receiving.

- ❖ Following is a brief list of reactions that may occur after vaccination. If your cat has had any reaction in the past as a result of vaccination, be sure to inform your veterinarian before your cat is vaccinated again.

### ❖ MILD REACTIONS

The following reactions are fairly common, usually start within hours to several days after vaccination, and last no more than 1-2 days:

- ✓ Discomfort at the site where the vaccine was given.
- ✓ Mild fever.
- ✓ Diminished appetite and activity.

Development of small, firm, non-painful swelling under the skin at the site where the vaccine was given. The swelling usually goes away after several weeks, but if you notice such a swelling; you should contact your veterinarian.

### ❖ MODERATE REACTIONS

These reactions occur very rarely:

- ✓ Vomiting and Diarrhea
- ✓ A serious and potentially life-threatening allergic reaction within several minutes to an hour after vaccination. This usually involves difficulty breathing.
- ✓ A kind of tumor called a sarcoma developing at the vaccine site. Several weeks, months, or even longer following vaccination.

### WHAT SHOULD I DO IF I THINK MY CAT IS EXPERIENCING A PROBLEM AS A RESULT OF A VACCINATION?

By all means, consult with your veterinarian. Even though vaccine-related disease is uncommon, the consequences can be serious. Your veterinarian is the individual most qualified to advise you if any event does occur.

### TO VACCINATE OR NOT TO VACCINATE?

The decision to vaccinate your cat should be based on a thorough understanding of the benefits – and the risks – of the procedure. For this reason, it is extremely important that you discuss the procedure with your veterinarian. He or she will be more than willing to answer any questions you may have and will help you make the right vaccine choices for your cat.