

The Future of Vaccinations for Cats

Drs. Foster & Smith Educational Staff

Vaccine schedule changes

As we gain more knowledge regarding the length of immunity produced by vaccinations, vaccines improve to provide a longer duration of immunity, and better methods to test immunity are developed, we will see changes in the recommended vaccine schedule for cats. Most vaccines will not be given annually, and vaccine rotation will be more common e.g., vaccinate against disease A one year, against disease B the next year, disease C the third year, and then repeat the rotation. Vaccine schedules will be more individually tailored to the animal. Many veterinarians are already changing their recommended vaccination schedules.

More monovalent vaccines

Since the length of immunity to different diseases varies, some vaccines will need to be given more often than others. Monovalent vaccines are those that protect against only one disease. Rabies vaccine, for instance, is a monovalent vaccine. Polyvalent vaccines, like the typical feline distemper combination vaccine protect against more than one disease. Monovalent vaccines will make it possible to vaccinate against only those diseases to which the animal is susceptible, without including unnecessary components. For example, immunity to [feline panleukopenia](#) is long, but for [feline rhinotracheitis](#), it is relatively shorter. Instead of giving the usual combination vaccine available today, which contains panleukopenia (distemper), rhinotracheitis, and calicivirus, a vaccine containing only rhinotracheitis could be given, avoiding unnecessary vaccination with panleukopenia.

New methods of vaccination

There are several oral vaccines in use today. Oral rabies vaccine is used to vaccinate wildlife. Vaccine manufacturing companies are focusing on the development of oral vaccines for other diseases in domestic animals as well. Intranasal vaccines are also becoming available for more diseases, especially those of the respiratory system.

Vaccines may be developed which slowly release antigens over a period of months to years. This would result in a continual stimulation of the immune system, thus making annual or triennial (every 3 years) vaccinations unnecessary.

Improved and safer vaccines

Recombinant technology is the wave of the future. A recombinant vaccine is made from portions of the genes of the virus or bacteria. Those genes that code for the antigens that produce the best antibody response are combined with a non-disease causing virus so they can enter the cells of the body. More and more vaccines are being made by this method, which will result in safer and more efficacious vaccines.



Vaccines against new diseases

Recombinant technology may make it possible to vaccinate against noninfectious diseases such as juvenile onset diabetes. Vaccines may also be developed to protect pets from parasitic diseases. Even a 'spay vaccine' is being considered. A vaccine against one type of cancer (melanoma) in dogs is already on the market.

Summary

In the next few years, we are likely to see many changes in the types of vaccines we use, how often we vaccinate, methods of vaccination, and for which diseases we will have vaccines. This will be an exciting time, and we will do our best to keep you up-to-date on new developments.