

# ***Core Vaccines for Dogs and Cats***

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August has been designated “National Immunization Awareness Month” by the Centers for Disease Control and Prevention. Vaccines are important for the health of people and pets alike!

“All dogs and cats should receive regular vaccines to protect them from contagious diseases,” says Dr. Gary Brummet, a veterinarian at the University of Illinois Veterinary Teaching Hospital in Urbana, “although this does not mean your pet needs every vaccine available for dogs and cats.”

After taking into account your pet’s lifestyle (indoor, outdoor, or both), exposure to other animals, geography, and other factors, your veterinarian will recommend what vaccines should be considered “core vaccines” for your pet based on risk of exposure, severity of disease, and the potential for diseases to be transmitted from animals to people.

“At the University of Illinois Veterinary Teaching Hospital, we recommend all dogs receive vaccinations to protect against rabies, distemper, parvovirus, and leptospirosis,” says Dr. Brummet.

Rabies is a potentially fatal virus that can be spread by the bite of infected wildlife (skunk, bat, raccoon, and fox) or domestic cat or dog through their saliva. This virus targets neurons, travelling the central nervous system to reach the brain. The rabies vaccine is required by law in the state of Illinois. An unvaccinated pet that bites a person may be confined to isolation or even euthanized.

Distemper is another virus that affects both dogs and cats. In cats the virus is commonly referred to as “feline panleukopenia virus.” Signs of distemper in dogs can include: coughing, sneezing, and thick mucus discharge from the nose and eyes. A cat infected with distemper could present with depression, anorexia, vomiting, and a fever. This viral disease is highly contagious, in both cats and dogs, and can be fatal.

Parvovirus is typically seen in young dogs (6 weeks to 6 months of age) that are unvaccinated. This virus targets the rapidly dividing cells in the gastrointestinal tract and can also affect the animal’s white blood cells. Destruction of the tissue lining the gastrointestinal tract leads to the animal having profuse diarrhea due to malabsorption.

Leptospirosis is a bacterial disease that is mainly seen in animals but can be transmitted to people. Leptospirosis is the most common zoonotic disease in the world. It is transmitted by water contaminated with urine that contains the bacteria. A common presentation for leptospirosis is damage to the kidneys, where the bacteria are then shed in the urine.

“Some dogs should also be vaccinated for Bordetella and possibly for Lyme disease, depending on the dog’s lifestyle,” adds Dr. Brummet.

Bordetella, commonly referred to as “kennel cough,” is a bacterium that colonizes the upper respiratory tracts of dogs. Dogs that spend time in boarding facilities should be vaccinated.

Lyme is a bacterial disease that can affect dogs, cats, and people. It is commonly transmitted by the bite of the deer tick. Dogs that frequent areas with high numbers of ticks, such as heavily wooded areas and tall grasses, are at higher risk and therefore should be vaccinated against Lyme.

“We recommend all cats be vaccinated for rabies and distemper, and some cats should be vaccinated for feline leukemia depending on their risk of exposure,” says Dr. Brummet.

Feline leukemia virus (FeLV) is a retrovirus, which refers to the way the virus is replicated in the body. FeLV is a persistent infection, for the life of the animal, and infects white blood cells. FeLV is one of the most infectious diseases in the cat population and is shed in the saliva, urine, and feces. This virus can also be acquired by kittens from the mother before birth or through the mother’s milk. Most exposures occur when kittens are 6 to 8 weeks old, since the maternal antibodies are waning at this point.

Although there is a potential for a reaction with any vaccine, these are rare.

“Vaccine reactions can be as mild as mild soreness and lethargy or, even rarer, true allergic reactions such as hives, facial swelling, vomiting, shock and death,” Dr. Brummet explains. “A study in 2005 reported vaccine reactions in 13 out of 10,000 vaccines given to pets.”

For more information about core vaccines for your pet, contact your veterinarian.