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Sharpen Up Your Pet Vaccine Know-how

For Dr. Tony Carr, there's no real debate about whether vaccinations are an essential for pets. "They definitely are necessary," says Carr, a small animal internal medicine specialist at the Western College of Veterinary Medicine in Saskatoon, Sask. "There's been some bad press about vaccines lately, but I think there's a much greater risk involved when animals are exposed to preventable diseases without the support of vaccinations."

For example, take a disease like canine distemper — a highly contagious, deadly viral disease that's preventable through vaccination. "Even dogs that survive distemper are never the same; they're crippled in terms of immunity," says Carr, who has the answers to some common questions about pet vaccines.

Q. What are essential vaccinations for cats and dogs?

The essential or *core vaccines* are usually given as a combination. For dogs that one vaccination includes protection against canine distemper, canine parvovirus, canine adenovirus (infectious canine hepatitis), and parainfluenza. Rabies vaccine is given as an additional injection. In cats the combination includes vaccines for feline rhinotracheitis virus (feline herpes virus), feline calicivirus and feline panleukopenia with the rabies vaccine also administered separately.

Recommendations for optional or non-core vaccines are based mainly on lifestyle in cats and geographic region in dogs. Your local veterinarians are your top resource because they can identify which diseases they're seeing in your area.

Q. When should the vaccination program begin?

For both dogs and cats, a typical routine will be eight, 12 and 16 weeks for the first vaccinations. We give these multiple dosages aiming to ensure the animals are vaccinated at a point when their level of maternal antibodies — the protection against infectious diseases passed on by the mother — is no longer high enough to defeat the vaccine.

Q. How often do pets need vaccinations after 16 weeks?

Dogs should get the vaccinations again when they're one and then every three years after that. The frequency of the rabies vaccination is determined by provincial or state regulations — some say every year and some every three years.

Cats should also receive the same vaccinations at a year, but their schedule may differ after that. Concerns about the risk of a specific cancer, injection-site fibrosarcoma, have led to the development of vaccines that induce less inflammation but have shorter term protection. Those

eliciting the lower immune response should be administered once a year whereas those creating the higher response are usually required every three years. Again, your veterinarian can use lifestyle as a guideline. As with dogs, provincial and state laws regulate the rabies vaccine.

Q. Who decides upon these guidelines?

A couple of organizations play a role in establishing vaccine protocol. The American Association of Feline Practitioners (AAFP) has an advisory board that is always monitoring and updating their guidelines. The American Animal Hospital Association (AAHA) is also involved in setting protocol and providing information for practitioners and pet owners.

Q. How do the vaccinations work?

Most vaccines are made of modified live viruses. The virus has been reproduced multiple times until a disease-causing strain eventually develops. Although no longer dangerous, the virus still causes an immune response that provides protection from the disease.

We also use killed (produced from inactivated pathogens) vaccines. The rabies vaccine is a killed virus which usually requires a higher dose and an adjuvant to elicit the appropriate immune response to the injection.

Q. What are the side effects of these vaccines?

Just like humans, animals can get a bit of a fever or stomach upset and feel a little bit “punky.” There can be local reactions such as swelling, redness or sensitivity, but they don’t happen that frequently. Hives can develop, particularly in dogs, but a couple of injections by the veterinarian can make them go away.

Severe side effects are rare but may include *anaphylaxis* (a serious allergic reaction). That usually happens immediately — while they’re still at the clinic and able to get treatment.

Q. When should we avoid having our animals vaccinated?

We generally don’t recommend vaccinating pregnant or unhealthy animals, and we avoid giving vaccinations to animals having spay or neuter surgery.

Q. Where can we find more information about vaccinations?

In addition to consulting your veterinarian, you can find reliable information on several websites including catvets.com, AAHAVet.org and healthypet.com.

Q. So does this mean we no longer need to take our pets for annual visits to the veterinarian?

We still recommend that your pet be seen by a veterinarian for an annual wellness exam. The vaccines should be a part of the wellness program, but they shouldn’t be your only wellness

program. We hope to switch the focus away from just coming in for vaccinations to ensuring an annual examination and a chance to chat with your veterinarian about issues like obesity, nutritional requirements and changing needs for aging animals.

Vaccine sidebar (story #2)

Top Vaccine Targets

Having trouble keeping track of all the diseases that you need to consider when it comes to vaccinating your pet? Don't worry — your veterinarian can give you more details about each disease during your next visit. But in the meantime, here's a list of diseases (along with definitions) that veterinarians recommend including in your pet's vaccination schedule.

Canine distemper is caused by a highly contagious virus that is spread through the coughs, urine and feces of infected animals. Puppies are the most susceptible. Early symptoms such as fever and coughing often progress to vomiting and diarrhea and then to seizures, tremours and other neurologically related problems. Distemper is often fatal, and even recovered animals frequently experience lifelong difficulties.

Canine parvovirus is a hardy, highly contagious, often deadly virus that's spread through the feces of infected dogs – sometimes carriers displaying no symptoms. It usually attacks the intestinal tract causing symptoms such as bloody diarrhea and vomiting. Puppies are most vulnerable to the virus, and certain breeds including rottweilers and Labrador retrievers may show a higher susceptibility.

Canine adenovirus type 1 (infectious canine hepatitis) is transmitted through contact with the feces and body fluids of infected dogs. This disease progresses very quickly with a variety of symptoms including fever, coughing, and bloody diarrhea. It often leads to liver damage and chronic problems in surviving animals.

Parainfluenza affects puppies and older dogs most severely. Spread through nasal secretions, the virus causes a range of symptoms such as fever and coughing and can progress to potentially fatal conditions such as pneumonia.

Feline rhinotracheitis virus (feline herpes virus) affects mainly the upper respiratory tract and causes a variety of symptoms including sneezing, nasal discharge and conjunctivitis. Appetite loss is the most dangerous effect. Transmission is through direct contact with the mouth, nose or eye discharge of infected cats, many of which show no symptoms. Once infected, a carrier state often results with periodic flare ups.

Feline calicivirus is an extremely contagious viral disease that commonly affects the upper respiratory system, eyes and mouth but sometimes involves the gastrointestinal and musculoskeletal systems. Symptoms usually include fever, runny nose and oral lesions. Lameness and intestinal problems may also develop. Resistant to many disinfectants, the virus spreads through contact with the eye, nasal or mouth discharges of infected or carrier animals.

Feline panleukopenia is especially deadly for kittens. Symptoms include vomiting, high fever and weight loss. The virus is easily transmitted, most commonly through direct or indirect contact with infected feces or urine, and can also be passed to the kittens *in utero*.

Rabies is a disease affecting mammals that's caused by the rabies virus. Rabies poses a particularly serious threat to public health because it is zoonotic (can be transferred between humans and animals). The virus is usually spread by a bite or scratch from an infected animal. It ultimately infects the brain causing death.

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