



This Month: Vaccinations

Vaccinations

Most people have gone through a series of vaccinations against various diseases like hepatitis, tetanus and flu. As in humans, pets are also vaccinated against diseases. And while humans may only have to get a tetanus shot every ten years, pets age seven times faster than humans do. So, pet vaccines are given yearly to keep up with their rapidly aging bodies.

Vaccines work by introducing a dead or fragmented virus (called an ‘antigen’) into a patient’s system. The immune system then recognizes these antigens as a foreign substance and begins an attack against it. Antibodies are made to immobilize the virus, and cell-mediated immunity is also heightened. Because the antigens in the vaccine cannot cause the actual sickness, the body learns to recognize and attack this antigen without putting the patient at risk of contracting the disease. The next time the animal comes in contact with this virus the body will be able to quickly recognize and immobilize the virus before it is able to spread and cause sickness. Booster shots are required to remind the body what the virus looks like and keep its defenses in tip-top shape. The next time the immune system encounters the real virus, it is halted before disease begins. Without boosters, the body gets lazy and stops producing the necessary antibodies to recognize the virus and the virus has time to reproduce and cause disease.

Starting at 6 weeks, puppies and kittens should get regular boosters until they are 4-6 months old. While nursing (generally up until 6 weeks) puppies and kittens are protected by ‘passive’ antibodies in their mother’s milk. When the animals are weaned, these antibodies are still in their system. At the first round of vaccines, the mother’s antibodies may actually attack the vaccine antigen, rendering it ineffective. ‘Active’ immunity starts when the mother’s antibodies ‘expire’ and the puppy or kitten gets its next vaccination. Since we don’t know when the mother’s antibodies stop working exactly, we must give a series of shots – called “boosters” – to insure the puppy or kitten is protected at the earliest age possible, to reduce the risk of contracting one of the diseases they protect against. Also, if the mother is not current on her own vaccines, she has no ‘passive’ antibodies to provide her offspring with protection against the disease.

Puppies need boosters at 6 weeks, 9 weeks, 12 weeks and 15 weeks.
Kittens only need boosters at 6 weeks, 9 weeks and 12 weeks.

Canine Vaccines:

Core vaccines:

Rabies
DHLPPC (also called Distemper or 7-way)
Bordetella (also called Kennel Cough)

Additional vaccines:

Lyme
Specialized Lepto (for hunting dogs)

Feline Vaccines:

Core vaccines:

Rabies
FVRCP (also called Distemper)
FeLV (also called Leukemia)

Additional vaccines:

FIP
FIV

Vaccinating your pet is the most effective way to protect them against the viruses they could come in contact with. While some of the diseases, like Rabies and Hepatitis, must be transferred through bodily fluids, other diseases, like Bordetella, can be carried on air currents and transferred easily among animals at places like dog shows, kennels and parks. And although some of them are easily treatable with antibiotics, many of them are lethal – especially to puppies and kittens – and all of them are expensive to treat.

Diseases

Rabies: The only vaccination required by law in the state of South Carolina (and most other states as well), rabies is a viral disease that is highly contagious and always fatal. Carried by many wild animals (like skunks, raccoons, foxes and bats), rabies is transmitted through saliva, usually through the bite of an infected animal, and attacks the central nervous system of all mammals (including humans). Symptoms of rabies include excessive salivation, pupil dilation, an unsteady gate, facial twitching, snapping at the air, and other changes in behavior towards aggressiveness or shyness.

DHLPPC: Distemper, Hepatitis, Leptospirosis, Parainfluenza, Parvovirus, and Coronavirus are the seven diseases included in this vaccine.

Distemper is a viral disease which is highly contagious and often fatal. It is transmitted by bodily discharges (including urine, diarrhea, vomit, or eye and nose secretions), can be transmitted through inanimate objects like food bowls, and can also be carried on the air through a sneeze. What starts off as a cold will in two weeks evolve into a disease of the nervous system that can do permanent damage, even if treated.

Hepatitis is also a viral disease that can include respiratory tract illnesses, liver and kidney diseases, and corneal edema or “blue eye”. It is transmitted through urine and is often fatal.

Leptospirosis is a bacterial disease that causes kidney disease and often liver disease. It is transmitted through urine, and may also be found in stagnant or slow-moving water like puddles (this is why you should never let your dog drink from a puddle while on a walk). Both wild and domestic animals carry lepto, and the disease can be fatal if not treated immediately.

Parainfluenza is a viral disease that is often not dangerous in itself, but does open the way for other more serious infections, including pneumonia. It is a respiratory tract illness that is transmitted by nasal secretions from another dog, and can be spread by inanimate objects and sneezes.

Parvovirus is another viral disease, usually affecting puppies under six months of age. It is very expensive to treat, and is more often than not fatal in puppies. A hardy virus, Parvo attacks the intestinal tract, often causing bloody diarrhea that has a distinct nickel-like smell, as well as vomit, loss of appetite and lethargy. The virus can survive extreme temperatures as well as most disinfectants.

Coronavirus is a virus that attacks the intestinal tract as well, oftentimes mimicking the symptoms of Parvo. It is transmitted through fecal matter, and can be fatal to dogs that aren't treated quickly. It is not as hardy a virus as Parvo, but it can live for several months in the environment without a host.

Bordetella: Also called Kennel Cough or Canine Cough, the most common symptom of Bordetella is a dry, hacking cough. It is highly contagious, transmitted through sneezing, coughing, and nasal secretions, and is most common in kennels, at dog shows, and at dog parks. In many cases Bordetella sufferers will need antibiotics, both to stave off the current infection and any secondary infections that may come of it.

FVRCP: Feline Rhinotacheitis, Calcivirus, Panleukopenia, and Chlamdophila are the four viruses included in this vaccine.

Feline Rhinotacheitis is a viral disease that affects the upper respiratory tract in cats. Symptoms include sneezing, coughing, and discharge from the nose and eyes. Oftentimes, cats will develop chronic symptoms of this disease, although it is rarely fatal.

Calcivirus is also a viral disease that affects the upper respiratory tract in cats. The symptoms are often similar, although many cats with calcivirus will also develop ulcers in the mouth, diarrhea, pneumonia, and joint disease, and the symptoms can become chronic or deadly if not treated immediately.

Panleukopenia is another hardy virus that causes fever, vomiting, diarrhea, and loss of appetite. Unborn fetuses that come in contact with the virus are often aborted, or born with cerebellar hypoplasia, or "spastic kitten", so it is important to keep breeding females up to date on this vaccine. Panleukopenia is transmitted through inanimate objects or contact with infected kittens.

Chlamydia is a parasite that can cause upper respiratory infection in cats, as well as chronic conjunctivitis problems. It can also lead to lung disease if it isn't treated immediately. Transmission is usually due to an inanimate object or contact with the eye secretions of an infected cat, but the parasite can also become airborne on sneezes, making it easily transmittable in multi-cat households.

FeLV: Feline Leukemia is a virus that causes a number of diseases in cats, including a common form of cancer known as Lymphoma, which usually attacks the intestines and chest. Symptoms often range from vomiting, diarrhea, weight loss, breathing difficulties, anemia, and fever, and cats who are often sick or feverish should be tested for this disease right away, as the virus weakens the immune system and makes the animal prone to other viral and bacterial diseases. FeLV is transmitted through bodily secretions such as saliva, blood, and urine, and multi-cat households are most at risk, as are cats that go outdoors and get in fights. Any cats that have an unknown background or were once feral should be tested for FeLV before being introduced to other family cats.

FIP: Feline Infectious Peritonitis is a type of Coronavirus that is not common in cat populations (although there are pockets of it in the feral populations of Charleston). Adult cats with healthy immune systems should be able to fight this disease off on their own, but kittens, elderly cats, and cats with weak immune systems (those with FeLV especially) are at risk of contracting this virus. Symptoms include weight loss, fever and loss of appetite for both the “wet” and the “dry” form of the disease. It is spread through contact with an infected cat or its secretions and eliminations, and prolonged exposure is usually necessary, so multi-cat households and catteries are most at risk. FIP is always eventually lethal to cats.

Annual Exams and Vaccines

One of the important things to remember about vaccines is that they only work on healthy individuals. If you already have the flu, getting a flu shot will do no good – your body will be too busy fighting the current flu to waste energy fighting a virus that won’t harm you. It is for this reason that annual exams are given before vaccinating most animals. If a problem is found during an exam – a fever, urinary tract infection, conjunctivitis, etc – the vaccines will be put off until the current problem is taken care of in order to let the body focus on one disease before tackling another. This is also the reason you must wait at least two weeks between vaccines – if the body is already busy attacking one antigen it will have no time to respond to newly introduced antigens within that two week time frame. So while you can give a Bordetella and Distemper vaccine at the same visit, you cannot give a Rabies vaccine the next week because the body won’t recognize it, focusing all its energy instead on the Bordetella and Distemper antigens.

During your exam, Dr. Sheridan can also talk to you about your pet’s risks for certain diseases, and can tailor a custom vaccination program specifically for your pet’s risks. For instance, if you are taking your dog up north where the chances of catching Lyme disease are higher, we could vaccinate the dog against Lyme disease for the occasion. Or, if your cats are outdoor cats and like to protect their area from the local stray population we can vaccinate them against FIP and FIV. Talk to Dr. Sheridan at your pet’s next annual to see if any of these are appropriate for your dog or cat.

A final note on Vaccination

Always have vaccinations done by a veterinarian, rather than at home. While you can buy vaccines to give at home, it is not recommended, especially in case of allergic reaction and anaphylactic shock. If your pet has a reaction to the vaccine, he needs to be taken to a vet immediately! If your pet has had a reaction before, remind the vet before giving vaccines so that the appropriate anti-inflammatory injection can be given to reduce the risk of anaphylactic shock. Keep an eye on all pets after they have had vaccines, whether or not they have a history of reactions – many pets will be lethargic, which is normal, but any swellings, either around the face or around the injection site, should be seen by a vet immediately.

Rabies vaccinations can only be given by a state-certified veterinarian.

No treatment, whether a drug, surgical procedure, or vaccination, is ever 100% guaranteed. However, vaccination is a cost- and health-friendly alternative to treating an animal who has contracted a disease that it could otherwise have been vaccinated against.

Success Story: Braveheart!

Braveheart, a 13 year old Bull Mastiff, presented at the FRAH for vomiting and weight loss. On physical exam, he was dehydrated, thin, weak, and had an enlarged bladder with a caudal abdominal mass. Bloodwork, urinalysis and radiographs were performed and a diagnosis of a bacterial urinary tract infection, bladder stones, prostate enlargement (causing partial urinary flow obstruction) and renal failure were proclaimed. Braveheart was started on IV fluids and antibiotics. After three days an exploratory surgery was performed. Because of his history of mast cell cancer, a biopsy was taken of the prostate. A cystotomy was performed to remove the stones from the bladder, a urinary catheter was placed in his urethra, and Braveheart was neutered to shrink his prostate (this can reduce the prostate up to 70% in some cases).

Because the enlarged prostate was constricting his urethra, Braveheart could not urinate on his own, and the urinary catheter was kept in place for a week and a half. As his renal function returned to normal, Braveheart was switched to IVD Vegetarian diet to prevent the formation of further stones.

Dates, Upcoming News, Specials:

August 19th is National Homeless Animal Day.

The FRAH will be open for Saturday hours on the 5th and 26th of this month. Saturdays are "by appointment only" so please schedule appointments well in advance, as Saturdays book up quickly. Office hours on Saturdays for boarding pick-ups and drop-offs are between the hours of 8:30am and 1:00pm.

Taking off for a holiday weekend? Remember to call ahead to book your dog's space in our kennel! Busy summer weekends book up fast, and you cannot count on there being a spot if you haven't called to reserve one in advance.

Buy six doses of Revolution or Frontline Plus and get a seventh dose free! Both products will protect your animal from fleas for a full month, and both are waterproof, so Fido can still go swimming at the beach!

With the warmer weather the FRAH is getting busy again! Be sure to schedule your appointments well in advance to insure you get the best time possible.

Enter to win free annual exams for your pet's life! Stop by the FRAH for details on how to enter this "National Pet Wellness Month" sweepstakes.

As always, the FRAH monthly newsletter can be found on the web at:
<http://www.follyroadanimalhospital.com/newsletter.htm>

Kittens and Puppies!

The FRAH currently has kittens and puppies for adoption! The kittens range from 10-16 weeks old, medium and short haired, and are black, grey or dark brown tabby. They are spayed and neutered and are up-to-date on all shots. We also have a 1 year old, blue merle Australian Cattle Dog for adoption; he is neutered and up-to-date on all shots.

A note from Dr. Sheridan:

Vaccination, as with any medical procedure, carries risk. The most common risk associated with vaccination is that the animal (usually cats) may be lethargic the next day. Also tenderness at the injection site may occur, and sometimes recently vaccinated animals may not eat or drink and become a little dehydrated as a result. Treatments for this may include pain management or fluid therapy, depending on the severity of the symptoms. Aspirin can sometimes prevent these side effects if given at the time of vaccination (remember, cats cannot get Tylenol or other non-steroidal medicines).

More serious complications can occur, but are usually rare. If bacteria is pushed under the skin by the needle, an abscess might develop. Even if no bacteria are present, a 'sterile' abscess can develop if the immune system responds aggressively to the vaccine. Allergic dogs may develop increased itchiness or even hotspots about one week after vaccination. Autoimmune hemolytic anemia, a rare but deadly disease in which the immune system attacks its own red blood cells, may be associated with vaccination in dogs. Rarer still is fibrosarcoma, an aggressive cancer that occurs in 1 out of 10,000 vaccinated cats.

Often, the incidence of natural disease far outweighs the risk of vaccination. For example, the natural occurrence of feline leukemia virus in *all* cats ranges from 3-8% depending on which study you are looking at. Similar statistics exist for FIV as well. Your cat may encounter FIV or FeLV virus 6-16 times for every 100 cats that he or she meets in the neighborhood. One must weigh this relatively high risk relative to the relatively low risk of vaccination when designing a vaccination program for your companion.

So, you can see that a vaccination program should not be taken lightly. Nor should vaccinations be eliminated from the medical management of companion animals. Vaccinations should be a part of the medical management of your beloved companion animal. Talk to your veterinarian about your pet's lifestyle, relative risk of disease and your concerns about vaccination risks. Together, you and your veterinarian can implement a custom vaccination program to reduce the risk of infectious disease and avoid unnecessary side effects.