Health Care Focus

Preventative Care for Cats



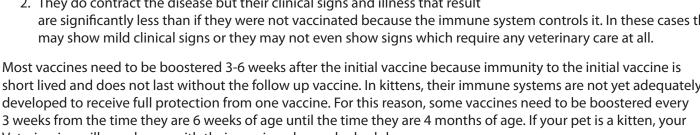
Preventative Care

Preventative care is the health care provided that prevents disease and helps keep your pet healthy. It is crucial to practice appropriate preventative care measures tailored to your pet's breed, age, lifestyle and travel habits in order to best assure their well being. This care can serve to extend your pet's lifespan, improve your pet's quality of life, and decrease veterinary costs over time by preventing potentially high veterinary bills that can be associated with diagnosing and treating illnesses. Below is an example of a comprehensive healthy pet care path.

Vaccines are sometimes referred to as "shots" and they are needed to prevent the disease(s) in which they are named for. They give your pet immunity to the disease and can work in 2 ways:

- 1. If your pet is exposed to the disease then they cannot contract the disease because the immune system completely clears it.
- 2. They do contract the disease but their clinical signs and illness that result are significantly less than if they were not vaccinated because the immune system controls it. In these cases they may show mild clinical signs or they may not even show signs which require any veterinary care at all.

short lived and does not last without the follow up vaccine. In kittens, their immune systems are not yet adequately developed to receive full protection from one vaccine. For this reason, some vaccines need to be boostered every 3 weeks from the time they are 6 weeks of age until the time they are 4 months of age. If your pet is a kitten, your Veterinarian will supply you with their vaccine plan and schedule.



General Care

All cats need the following health care measures to assure best health:

1. Rabies vaccine

Rabies vaccine is needed by every cat every year. There is also a 3 year vaccine that is available. It is first given around 4 months of age. This vaccine prevents a deadly virus causing neurologic disease that is spread to people and other animals through bites. There is no treatment available for Rabies and if contracted it will cause death. This vaccine is required by law in all cats. If your cat were to bite another animal or human, or if someone claimed your pet bit another animal or human, then there can be significant penalties for not having your pet vaccinated. These penalties include mandatory relinquishment of your pet that could lead to mandatory quarantine or euthanasia. Not having your pet registered and certified for their Rabies vaccine with the county also leads to strict financial penalties. Some people may feel that rabies does not exist anymore or is very unlikely to occur in their pet. Thanks to vaccines, the rabies virus has drastically decreased among the animal population. However, the virus can still be contracted by pets and wildlife that are not vaccinated, including raccoons, opossums, bats, and feral cat populations. In the past 20 years there have been hundreds of cats, dozens of dogs and thousands of raccoons that have tested positive for rabies in the state of Florida as well as human death. In addition to this, over 2000 people have had encounters with animals in which they have required treatment due to possible rabies exposure.

2. Feline Viral Rhinotracheitis, Calicivirus, Panleukopenia (FVRCP)

Rhinotracheitis is an infectious respiratory disease caused by Feline Herpesvirus. It is an extremely common cause of respiratory disease in cats and cannot be cured therefore vaccination is important. It often results in life-long intermittent recurrence of clinical signs. Clinical signs of this disease occur from the respiratory tract and/or eyes and include sneezing, eye and nose discharge, eye discomfort and squinting. With more advanced respiratory signs, cats can stop eating and become dehydrated as well. Cats rely heavily on their sense of smell when it comes to eating and appetite. The virus is spread easily through airborne respiratory secretions (for example if they are around an infected cat that is sneezing or coughing) and through direct contact with a carrier cat or contaminated objects. Unvaccinated cats are most susceptible as well as the very young and the very old.



Calicivirus is another common infectious viral respiratory disease. This virus can also cause mouth sores and ulcers that result in severe oral pain. It is spread by direct contact with an infected cat or by contact with contaminated objects such as food and water dishes or other objects in the environment. The virus is very resistant to disinfectants and persists in the environment for long periods. Unvaccinated and inadequately vaccinated cats of all ages are at risk.

Panleukopenia is a severe, highly infectious and sometimes fatal disease that is caused by a virus. The virus causes a severe decrease in white blood cells which are the body's defense against disease. It therefore can lead to secondary infections as well a severe disease of the gastrointestinal tract and the nervous system. This is another virus that is very persistent in the environment. It is spread by direct contact with infected cats or by contact with microscopic viral particles in the environment. Unvaccinated and inadequately vaccinated cats of all ages are at risk.

With all of these viruses, your pet does not have to be exposed to other cats to contract these diseases therefore they may be at risk even if they never go outside! This is because these viruses live as microscopic particles for extended periods in the environment including in dirt/soil, on grass and other materials. So even if your pet never goes outside, you can track the virus into your home on your clothes or shoes either from contact with other pets or contact with the environment.

This vaccine is available as a combination vaccine (all in one vaccine) and should be started around 6 weeks of age. This vaccine must be boostered every 3 weeks until a pet is 4 months of age. After this time, this vaccine is needed by every cat every year of life.

3. Heartworm disease testing and prevention

Heartworm disease is a life threatening disease spread by mosquitoes. It only takes 1 bite from a mosquito infected with heartworms to transmit the disease to your pet. Heartworm larvae travel into a pet's bloodstream through the mosquito bite and then go to the heart vessels where they develop into adults. Adults then reproduce and produce microfilaria (essentially baby heartworms). The adult heartworms grow within the vessels and eventually clog the vessels, leading to heart and/or lung failure. The heartworms can also clog the vessels going to the liver, causing liver failure. The most common sign of heartworm disease in cats is lethargy and not eating although some will demonstrate cough. Some pets do not show signs but die suddenly from the disease.

A blood test is used to diagnose heartworms. It is not recommended as a screening test in cats however may be advised for your cat if heartworm

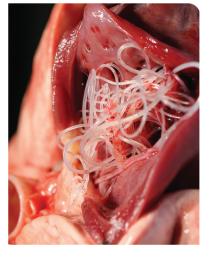
disease is suspected. Prevention is important even if your pet spends little to no time outdoors because mosquitoes are very prone to making their way indoors. Managing your pet's environment by eliminating sources of standing water may help to decrease the mosquito load in the environment but mosquitoes are not 100% preventable.

Prevention is especially important in cats, even if they stay indoors only, because there is no treatment available for cats with heartworm disease. Prevention is key!

Heartworm Preventatives for cats come in 2 forms- oral (given by mouth) or topical (given on the skin). An example of the oral form includes Heartgard. Topical forms include Revolution Plus, which also protects against fleas and certain intestinal parasites. Heartworm preventatives need to be given every 30 days in cats

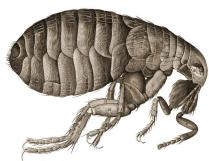
4. Flea Prevention

Fleas are a threat year round in Florida. Even if you do not see fleas on your cat, it does not mean they are not attacking. Some cats are flea allergic and can have severe skin reactions to even a single flea bite. Fleas are great at hiding and by the time you notice a flea on your pet there are likely already 1 million eggs in your house waiting



to hatch out! Fleas can live in cocoons in the environment for up to a year or longer and nothing kills fleas when they are inside of their cocoons. This makes it even more difficult to rid a house of fleas once they are present.

Fleas also transmit diseases such as blood borne parasites and bacteria and in some cases can lead to anemia (low red blood cell count due to blood loss from fleas feeding on a pet's blood). Some cases of anemia require emergency care and blood transfusions.



Even if your pet spends little to no time outside they are at risk of getting fleas. Fleas seek warm blooded creatures and quickly target animals. They can also easily get into cracks under doors or even make their way inside on your shoes, socks, or pants. They prefer animals to people so you may not even know they are there as they are feeding on your pet and not you. They don't just live in carpet either- they live in cracks of floors like tile and wood and in folds and creases of furniture including sofas and beds. Treating the environment can often require multiple treatments from exterminators and personal home treatments and some chemicals used to treat the environment can carry risks to humans and animals.

Prevention is key!! Prescription strength preventatives are best (available through a veterinarian) as most over the counter products are not strong enough to effectively kill and prevent fleas. Some over the counter products can also be irritating to your pet's skin. Some flea preventatives used in dogs are deadly in cats so never use a preventative for dogs on your cat. Fleas baths and some flea collars are also not adequately effective and may be irritating to your pet's skin. Recommended preventatives available include the combination flea and heartworm medication Revolution Plus, listed above, as well as Comfortis (oral) and Activyl (topical).

5. Fecal Parasite testing (microscopic testing)

This test needs to be done every 6 months to screen for gastrointestinal parasites. Parasites are rarely seen in the feces because they stay inside the intestinal tract and pass eggs into the feces which are microscopic. The microscopic eggs can live in the environment, including in dirt/soil, grass and household surfaces for extended periods of time.

Examples of intestinal parasites include roundworms, hookworms, tapeworms, whipworms, coccidia, and giardia. Tapeworms shed segments that can be seen in your pet's feces or around their rear end. Most heartworm preventions also protect against one or more of these parasites but some parasites do not have a prevention available therefore routine testing is important.

Even if your pet spends most of their time indoors or never goes outdoors they can be exposed to parasites. Microscopic parasite eggs can be carried into your household on your shoes and are often present in soil of potted plants. These parasites can cause diarrhea, vomiting, malnutrition and weight loss and most can be spread to people. People most at risk are children, pregnant, and immune compromised individuals. They also are spread very rapidly between pets in the household and can be difficult to eliminate from the environment therefore early detection and prevention is key!

6. Urinalysis (Urine testing)

Urine testing is important in cats once yearly. Urine testing screens for a common urinary problem in cats called crystalluria (urinary crystals). Urinary crystals are mineral particles, comparable to particles of sand, that float around in the urine and cause irritation to the surface of the bladder. These particles are microscopic and can not be seen in the urine at home. Urinary crystals can be present for long periods and cause discomfort in your pet without any clinical signs of disease. Urinary testing will also screen for other urinary diseases such as infections and inflammation.

One of the most common and severe outcomes of urinary crystals is urinary tract obstruction. This occurs when the crystals accumulate in the urethra (the tube leading from the bladder to the outside which cats urinate through) and block urine from leaving the body. Urinary obstruction is a life threatening condition which is very painful and can lead to sudden illness including extreme lethargy, vomiting, bladder rupture, and heart arrhythmias that can lead to sudden death. Most cats will not show signs until the problem is advanced.

Male cats are most susceptible to obstruction due to their smaller urethra however female cats occasionally become obstructed as well. It is important to detect urinary crystals before they cause disease or obstruction. If detected, there are special diets or supplements that can be started to dissolve and/or prevent crystals and therefore prevent problems associated with them.

7. Oral Care

Dental disease is a predominant disease in pets as they are not able to care for their oral health as we can. Dental disease involves bacteria that live in the mouth and release enzymes that cause inflammation of the gums, breakdown of periodontal ligaments leading to loose teeth, and decay of the tooth surface that can lead to fractured teeth. Disease causing oral bacteria can also lead to tooth root abscesses/infections. They can also spread to the bloodstream and colonize different organs of the body leading to infections of heart valves, kidneys, and the liver. A recent study showed that one of the leading associations of kidney disease and kidney failure in cats is dental disease.



before after

Periodontal disease is also very painful. Many times our pets will not demonstrate signs of mouth pain and will instead compensate by chewing on the opposite side of the mouth to avoid painful areas or not chewing at all.

At home the best oral care is daily tooth brushing with a cat formulated enzymatic toothpaste. Cat formulated dental treats, mouth rinses, or drinking water additives (www.healthymouth.com), and special oral health food may also be beneficial.

8. Diet

Food is medicine. There are many prescription diets available that can support many animal medical issues from heart disease to kidney disease, and diabetes to obesity. Obesity is the most common disease among feline patients. Keeping your pet at a healthy weight can prevent disease such as arthritis, diabetes, heart disease, and certain types of cancers. Your Veterinarian will work with you on a dietary plan tailored for your pet. Feeding a high quality diet with essential nutrients, tailored to your pet's life stage and health needs, is important in obtaining maximum health. Portion control and minimizing or eliminating treats and table foods are also critical in maintaining health.



9. Microchip

This is a small electronic chip inserted with a needle under the skin between the shoulder blades. It serves to permanently identify your pet so that if they ever become lost or stolen then you can be contacted when they are found. We utilize a microchip that can also read your pet's temperature.

10. Health Insurance

Your pet deserves the highest quality of care and pet insurance will help you to afford this. Trupanion is the preferred insurance plan recommended by our hospital. Trupanion offers a great insurance plan that although does not cover preventative care, does cover 90% of veterinary bills in the case of illness or injury after deductible. This is often the care that hasn't been planned or budgeted for. With this insurance, you don't have to worry about the cost of lab tests, surgery, or medications in the event that your pet becomes sick or injured. All you have to focus on is giving your pet the TLC they need to recover! The following are some points to consider when choosing an insurance plan for your pet:

- Most insurance plans have a monthly payment that you make to cover a premium. The amount of these payments vary based on plan, and sometimes on your pet's age and breed.
- Trupanion allows you to choose the amount of your deductible or choose to not have a deductible at all.
- Trupanion plans do not have any limits on what they will pay out.
- Trupanion has a pre-approval process where they can pay the veterinarian directly so that you only pay your portion due the day of services.
- Trupanion has high coverage for illness and injury but no coverage for preventative care.
- All health insurance plans exclude conditions that are considered "pre-existing" therefore it is best to obtain health insurance before your pet shows any signs of disease. However, even if your pet has had health problems in the past, there are still many benefits to having health insurance in case additional problems arise in the future.

Personalized care and Lifestyle Vaccines

1) If your cat will ever spend time outdoors, have contact with cats that spend time outdoors, or have the chance of escaping and getting outdoors, then they need the following health care measures to best assure health:

a. Feline Immunodeficiency Virus (FIV) and Leukemia testing

FIV is also known as Feline AIDs. FIV and Leukemia are both viruses that are spread from one cat to another through saliva and through blood. The most common cause for contracting these diseases is through being attacked by or fighting with another cat (through bite or scratch wounds) however transfer through shared food or water dishes and through grooming of one another may be possible as well. These diseases cannot be spread to dogs or to humans.

These viruses are similar to human HIV in that they result in immune suppression. Suppression of the immune system then leads to increased risk of infections and difficulty clearing infections. The infections can also spread and worsen rapidly within the body. For example, what may be a self-limiting upper respiratory infection for a cat with a normal immune system can rapidly turn into a fully developed pneumonia in a pet with one of these viruses. Cats with Leukemia virus also have higher rates of certain types of cancers.

For the reasons outlined above, it is important to diagnose FIV and Leukemia early, before signs develop. If your cat were to develop one of these diseases, then the needs of your cat will change. Any signs of infection anywhere in the body need to be addressed early and aggressively before the infection progresses. It is also important to keep cats infected with either of these viruses isolated from other cats in order to prevent spread of the disease and to keep them indoors to limit their exposure to possible infections.

b. Feline Leukemia Vaccine

It is safest for your cat's health, that they stay indoors in order to limit exposure to certain diseases and potential dangers. However, if your pet does spend time outside, or has contact with cats that go outside, then there is a vaccine available to protect against Leukemia virus. This vaccine needs to be boostered 3-6 weeks after the initial vaccine and then is given yearly thereafter. As there is no cure for Leukemia, prevention is key.

Although there is a vaccine available for FIV, it has not been shown to be effective and can give false positive results on testing therefore is not advised.

2) If your cat is of the age of 7 years or over they are considered a senior pet and need the following preventative care measures listed below:

a. Senior labwork screening (bloodwork and urine analysis)

This lab work is designed to catch disease early. Oftentimes your cat will never show signs of disease until the disease is very advanced and severe. This is because they are genetically adapted to hiding disease, as in the wild, they would become prey if they were to show illness or weakness. This testing helps us to identify disease

early so that we can attempt to prevent or slow progression before it's too late. In doing so, we have the chance to extend your pet's lifespan and quality of life.

b. Blood Pressure

High blood pressure can occur with kidney disease, heart disease, or other causes. High blood pressure can also lead to blindness, strokes, heart disease, and kidney failure. Early intervention can prevent these devastating side effects.

3) If your cat is the breed of Persian, Persian cross, Himalayan, or British Shorthair then the following breed specific testing is needed:

Polycystic kidney disease

This is a genetic disease characterized by progressive development of fluid filled cysts that distort normal kidney tissue and lead to enlarged and irregular kidneys. Due to progressive compression of normal kidney tissue, the disease often results in potentially fatal kidney failure.

Testing involves obtaining a cheek and gum swab that is sent out for DNA testing. If it is found that your pet is at risk for this disease based on this testing, then there are special foods and medications available that can usually help cats with this disease live longer and have a better quality of life.

Please contact your veterinarian should you have any additional questions or are seeking additional information regarding preventative care. It has been a pleasure caring for your pet and we hope to continue in helping you to provide the care that they need to live a happy, healthy, and long life!

