

## **Recommendations for New Kitten Owners**

**By Lisa Restine, DVM; Lynn Buzhardt, DVM; Ernest Ward, DVM**

### **When should my kitten be vaccinated?**

Vaccinations are important for your young kitten. Some infectious diseases are fatal, and vaccinations can protect your kitten from many of these diseases. In order to be effective, immunizations must be given as a series of injections at prescribed intervals, so it is essential that you are on time for your kitten's scheduled vaccinations. Immunizations are started at 6-8 weeks of age and are repeated every 3-4 weeks until the kitten is 4 months old.

The routine or **core vaccinations** will protect your kitten from the most common diseases: feline distemper (panleukopenia), feline viral rhinotracheitis (feline herpes virus 1), calicivirus, and rabies. The first three are included in a combination vaccine given every three to four weeks until the kitten reaches 16 weeks of age. Rabies vaccine is usually given once at 12-16 weeks of age.

**Non-core vaccines** are not administered to every kitten, but are recommended in certain areas for cats with certain lifestyles. Cats that live outdoors are at more risk for infectious disease and often need these additional vaccines. One non-core vaccine for chlamydia may be given if this disease is common in your area. Feline leukemia vaccine (FeLV) is recommended for all kittens that are exposed to outdoor cats, so if your kitten goes outside or lives with another cat that goes in and out, feline leukemia vaccine may be added to the regimen.

### **Why does my kitten need more than one vaccination?**

Immediately after birth, a kitten receives a temporary form of immunity through the colostrum, which is the milk produced by mother cats shortly after birth, laden with protective antibodies. This first milk is produced only for a few days after birth and contains proteins called maternal antibodies. For about 24-48 hours after birth, the kitten's intestine allows absorption of these antibodies directly into the blood stream. This **passive immunity** protects the kitten during its first few weeks of life when its immune system is immature, but in order to remain protected against these diseases, the kitten must produce its own, longer-lasting **active immunity**.

Vaccinations stimulate active immunity, but they have to be given at just the right time. As long as the mother's antibodies are present in the kitten's bloodstream, they prevent the immune system from responding effectively to the vaccines. When a kitten is ready to respond to vaccinations depends on the level of immunity in the mother cat, the amount of antibody absorbed by the nursing kitten, and the general health and nutrition of the kitten.

Since it is difficult to know exactly when an individual kitten will lose its short-term passive immunity and be ready for immunizations, a series of vaccinations given at specific intervals increases the odds of stimulating active immunity in the kitten. The goal is to give at least two vaccinations in the critical window of time that occurs after the kitten loses her maternal immunity and before she is exposed to infectious diseases. Giving a series improves the chances of hitting this window twice. Also, multiple injections are needed because a single vaccination, even if effective, is not likely to stimulate the long-term active immunity that is so important. Rabies vaccine is an exception since one injection given at the proper age is enough to produce lasting immunity. To keep up the cat's immunity through adulthood, vaccines are repeated once every 1-3 years depending on individual circumstances and vaccine type.

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### **Do all kittens have worms?**

Not all kittens have worms (intestinal parasites), but most of them do. The same milk that protects nursing kittens from disease and provides nutrition also carries intestinal worms, so drinking mother's milk can transfer worms to young kittens shortly after birth. Infection can occur even earlier - before kittens are born - because some intestinal parasites are transmitted to kittens through the blood stream while they are still in the womb. Since kittens can become infected so early and since intestinal parasites can cause severe illness, treatment needs to begin when the kitten is only a couple of weeks old.

A microscopic examination of a stool sample will identify which worms the kitten is infected with so a specific treatment plan can be prescribed. Since many kittens are infected with the more common intestinal worms, your veterinarian may routinely administer a broad-spectrum dewormer that is safe and effective against several species of intestinal worms. This medication, which kills adult worms, is given every 2-3 weeks to target the most susceptible stage of the worm's lifecycle. For other types of intestinal parasites, different medications and treatment intervals are required.

Tapeworms, one of the most common intestinal parasites in cats, do not follow this developmental pattern. Kittens do not get tapeworms from their mothers. Kittens become infected with tapeworms when they swallow fleas that carry tapeworm eggs. When the cat chews or licks her coat, she often swallows a flea. The flea is digested within the cat's intestine, releasing the tapeworm egg. The egg hatches and anchors itself to the intestinal lining. Cats may also get a tapeworm infection by eating mice or birds.

There are other less common parasites that can infect kittens, such as coccidia and giardia that require special treatment. Both of these parasites can be identified with a stool sample examined under the microscope. Cats remain susceptible to re-infection with tapeworms, hookworms, and roundworms, so periodic deworming throughout the cat's life is recommended for outdoor cats.

### **How do I prevent fleas on my kitten?**

No matter where you live, fleas may be a threat to your kitten and to your household. Fleas spend a short time on your kitten and then venture out into your home. Adult fleas feed on the cat's blood, then hop off their host to lay eggs in the environment. Eggs hatch and the emerging larvae live and feed in your home. Larvae mature into pupae which lie dormant in your carpets, furniture, and floorboards. The pupae eventually hatch into adult fleas. The entire flea life cycle can take as little as 3-4 weeks under ideal conditions; in unfavorable conditions, the cycle can take as long as a year. Therefore, it is important to kill fleas on your new kitten before they can become established in your home.

Many of the flea control products that are safe on dogs are dangerous for kittens, so consult your veterinarian before choosing a flea control product. There are many safe oral and topical medications that control fleas, treat intestinal worms, and prevent heartworms all at the same time. These products are administered once a month, even in young kittens, and will protect both your cat and your home from fleas. Newer flea prevention products last 3-8 months.

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### What are ear mites?

Ear mites are tiny parasites that live in the ear canal of cats where they cause itching. The most common sign of ear mite infection is vigorous and persistent scratching of the ears or shaking of the head. Sometimes the outer ear canal will appear dirty and contain black debris.

Your veterinarian will examine the ear canal with an otoscope that magnifies the tiny mites, or will take a small sample of the black debris and examine it under a microscope. Although the mites may crawl out of the ear canals for short periods, they spend the majority of their lives within the protection of the ear canal.

Ear mites are easily transmitted between cats and dogs (but not humans) by direct contact. Kittens will usually become infected if their mother has ear mites. If one pet in the household has ear mites, it is advised to treat all of your pets. Successive applications of topical medication to the kitten's ear or skin will eliminate ear mites.

### What should I feed my kitten?

Proper nutrition is essential for growth, so it is important to choose the right food when your kitten is weaned. Cats are obligate carnivores and require meat protein in their diet. This protein should be of high quality, so choose a name-brand food specifically formulated for kittens that is made by a reputable cat food company. Growing cats have different nutritional requirements than adult cats, so kitten food should be fed until your kitten reaches twelve months of age.

Buy food that has been certified by a recognized organization as **complete and balanced**. This means that the food is nutritionally complete to meet the needs of growth and development. In the United States, you should look for food that has been certified by AAFCO, an independent organization that oversees the entire pet food industry. In Canada, look for foods approved by the Canadian Veterinary Medical Association (CVMA), or foods that are labeled as having been tested by feeding trials. Your veterinarian can provide you with specific dietary recommendations that will help your kitten develop into a healthy adult cat.

Cat foods are available in dry, canned, and semi-moist formulations that should all bear a label stating that the food is intended for kittens. Each of the types of food has advantages and disadvantages.

- Dry food is the most inexpensive and convenient. Dry food can be left in the cat's bowl at all times (free choice feeding) and is good for ad lib feeders like the average cat that eats a mouthful of food about 12-20 times per day. Dry food also helps developing baby teeth and keeps permanent teeth cleaner. Do not use free choice feeding in overweight cats or cats that overeat.
- Semi-moist foods may have a texture that is more appealing to some cats, but they often have a stronger odor and are usually high in sugar.
- Canned foods are messier and more expensive than either of the other forms, but their texture, odor and taste are very appealing to most cats. Even though canned food contains a lot of water, it will dry out or spoil if left out for prolonged periods, so it is more suitable for meal feeding rather than free choice feeding.

It is recommended to start your kitten on a combination of canned and dry food. That way, the kitten will develop a taste for both types of food. This will make it easier to medicate the cat later in life, as medication can be hidden in canned food. Many cats raised on dry food alone will refuse canned food when it is offered to them as a new item later in life.

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Table foods are not recommended at all because human diets are not nutritionally sound for cats. Supplementing your kitten's diet with a bowl of milk or tuna may seem like a fun treat, but may mean your kitten will eat less of the nutritious food she needs. In addition, most cats are lactose intolerant and may experience gastrointestinal upset from consuming dairy products. Some cats will often hold out for the treats and decline their well-balanced cat food. If you choose to give your kitten table food, be sure that at least 90% of her diet is good quality commercial kitten food. Do not worry about your kitten becoming bored with her diet. Even though humans enjoy a variety of things to eat, most cats actually prefer not to change from one food to another.

Commercials for cat food can be misleading and often promote cat food based on taste, shape, or consistency. Nutrition is rarely mentioned. Most of the gourmet foods are marketed to appeal to owners who are willing to spend more, but they do not offer the cat any nutritional advantage over a good quality cat food.

There is no research that supports the need for a grain-free diet in cats. Keep in mind that in the wild, cats ingest their prey and their prey's stomach contents which consist of grains and plant materials. An ideal diet has a high amount of digestible protein and low amount of carbohydrates.

### **Can I trim my kitten's toenails?**

Kittens have very sharp toenails that can wreak havoc on cat owners and their furniture. You can trim your kitten's nails with your regular fingernail clippers or with nail trimmers specifically designed for cats, but you must do so carefully. If you take too much off the nail, you will cut into the quick which will result in bleeding and pain.

Here are a few helpful pointers:

- Cats often have clear or white nails, so you can see the pink quick through the nail. This is a small pink triangle visible near the base of the nail. If you avoid this pink area, you should be safely away from the quick.
- When cutting toenails, use sharp trimmers. Dull trimmers tend to pinch or crush the nail and cause pain even if you are not in the quick. A good set of human nail trimmers are often sufficient. Many larger clippers meant for dogs do not trim cats' nails well and can cause splintering of the nails.
- Have styptic powder (a clotting substance) on hand in case bleeding occurs. These products can be purchased from pet stores or your veterinarian. In an emergency, a bar of soap can be used to help stop the bleeding.
- Playing with your kitten's feet and rewarding her with treats after nail trims is a good way to help encourage good behavior for future nail trims.
- Scratching is a normal cat behavior. If your kitten is exhibiting scratching behavior, see your veterinarian for recommendations to provide a properly enriched environment for your kitten. Scratching posts, boxes, and other scratching products should be placed in multiple locations in your home. Declawing is not a necessary procedure and is increasingly being banned in many jurisdictions.

If you are unsure about trimming your kitten's nails, ask your veterinary healthcare professionals for help. They can teach you how to make the procedure easy and painless – for you and your kitten.

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### **Why should I have my female cat spayed?**

Spaying young cats (from 2-6 months old) offers several advantages:

- Your cat will avoid heat periods, which usually begin at four to six months of age and occur every two to three weeks in an unbred cat. During the heat period, female cats encourage the attention of male cats. The female cat will posture and vocalize, which can be annoying to owners – so too can the presence of neighborhood male cats that mark the territory (urinate) outside your house and fight off other suitors. Sometimes the natural urge to mate is so strong that your indoor cat will attempt to escape outdoors to breed.
- Spaying prevents unplanned litters of kittens that often never find suitable homes.
- Spaying prior to the first heat cycle greatly reduces the risk of breast cancer.
- Spaying prevents cancers or infections of the reproductive organs.

Spaying a cat may be a common procedure, but all surgery must be taken seriously. The correct term for spaying is ovariectomy, and refers to the complete removal of the uterus and ovaries under general anesthesia.

### **Why should I have my male cat neutered?**

Neutering or castration refers to the complete removal of the testicles in a male cat, and like spaying, offers health advantages:

- Unneutered males are involved in more cat fights than their neutered friends.
- Some male cats go through a significant personality change when they mature, becoming possessive of their territory and marking it with their urine to ward off other cats. Intruding cats that disregard the urine warning may be met with aggression.
- The urine of an unneutered male cat has a very strong odor that is difficult to remove from your house if he marks his territory. Unneutered males **will** spray inside the house and will have litter box issues.
- Fighting increases the risk of infectious diseases like feline immunodeficiency virus and feline leukemia.
- Unneutered males may be less friendly toward their human family members too.

Male cats are usually neutered between 2-6 months of age under general anesthesia. Unless there are complications such as undescended testicles (cryptorchidism), the cat may go home the same day. Cats with undescended testicles should be neutered too. The testicles still produce testosterone and these cats still act like unneutered males. These cats are at a high risk for developing cancer later in life.

### **Can you recommend something for pet identification?**

All cats should have identification. Even strictly-indoor cats have been known to escape the confines of their safe homes and become lost. Cats often do not tolerate collars well, so ID tags are not the best option for pet identification. The best way to identify your cat is to have your veterinarian insert a microchip under the skin. A microchip is a tiny device that is implanted with a needle much like any other injection. The microchip contains a unique number that you register with a database along with your contact information. Veterinary hospitals, Humane Societies, and animal shelters have electronic scanners that detect the presence of a microchip and access your cat's unique identification. Microchips and data registry assist the reunion of cats with their families throughout the United States and Canada.