Cat Watch Cornell University College of Veterinary Medicine Feline Health Center

Expert information on medicine, behavior, and health from a world leader in veterinary medicine

O THIS JUST IN

Emergency Transport for Pets

Squad 51 Provides 24-Hour Ambulance Service for Pets in Ohio

ccording to Fox 8 in Cleveland, Ohio, Squad 51 was started by Yalanda Medina after a "lifeand-death health scare" with her dog. Her 24-hour emergency response and transport company provides emergency triage—like veterinary paramedics—and transportation to the nearest veterinary emergency clinic.

The company will also transport pets who require no interruption in treatment, such as receiving oxygen, between veterinary hospitals and surgical centers. They transport pets to veterinary appointments and will even assist people with at-home care, such as with changing wound dressings, and will take deceased pets to a facility for cremation or burial. You can learn more about this company at squadfiftyone.com.



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Yes, Your Indoor Cat Can Get Fleas

And when that happens, it's time to declare war

ou go to cuddle with your indoor cat and notice what looks like salt and pepper on your white shirt. Since you're a scientist at heart and want to know exactly what those specks are, you shake them off onto a white paper towel and add a drop of water. Oh no! The black specks dissolve into pink. You found flea eggs and flea feces.

Alternatively, you may have rolled your cat over in your lap and noticed tiny brown insects running across her

groin area. Or you may notice your cat scratching and biting at herself. A rash around the tail head or groin areas can mean fleas. How could this be? Your cat does not go outside!



Fleas are more than a nuisance. They can carry diseases that could not only infect your cat but could also make you ill if you get bitten. One such example is plague, caused by the bacterium Yersinia pestis, which can be transmitted by fleas, primarily in the western United States. Fleas can also spread parasites, such as tapeworms (see "Does Your Cat Have Parasites?" in our February 2018 issue, available at catwatchnewsletter.com).

The most likely culprit as the source of fleas is other pets. If your dog goes outside in the yard, he may have brought in some fleas. If your kids bring the pet bunny—who normally resides in a lovely hutch outside—in for a play session, fleas may join the party. The next likely flea transporter is wildlife. While we think of mice getting into old farmhouses, any house can have an invasion. These rodents not only destroy things, but they may bring in fleas that may decide they like your place and jump off to stay.

Humans can bring fleas in from outside, too. If you were out working in the garden, clearing brush, or taking a



We pamper our kitties, giving them the best of care, but those determined fleas can still grab hold.

long walk, it is possible you picked up a flea hitchhiker or two. It's possible for a cat to pick up fleas at the grooming salon or veterinary clinic. These places are cleaned so frequently that it's unusual for a flea to survive, but one determined flea may have made its way to your cat.

The most common flea found on cats is Ctenocephalides felis. Fleas may have preferred hosts, but they are equal opportunists if a warm body comes by. If you find one flea, you must assume there are more. That means all your pets who come inside need to be treated.

Flea Wars

Think of dealing with flea infestations as going to war. You need to fight your battles on multiple fronts. Start with your Fleas continued on p. 3

© DID YOU KNOW?

Fun Flea Fact

They're athletic!

leas are the top trackand-field athletes of the insect world. Fleas can jump up to 150 times their length, and they can run (as opposed to ticks, which are much slower).■ I



Periodontal Disease and Chronic Kidney Failure

Common in dogs, the connection is now seen in cats

hile studies have looked at the connection between periodontal disease and kidney failure in dogs, it is only recently that such a connection has been evaluated for cats. In the March 2018 issue of the *Journal of the American Veterinary Medical Association*, a cooperative study between the Banfield Pet Hospitals centered in Vancouver, Washington, and the University of Minnesota looked at associations of these two health problems in cats.

Eleven years worth of records were evaluated to find cats with a diagnosis of periodontal disease. Their health records were then followed to see if they developed kidney problems and if the degree of dental disease was correlated with that of kidney failure. The study results show that cats with dental disease have a greater risk of chronic kidney disease and that the worse the dental disease, the higher the risk of kidney problems. A history of bladder infections was also associated with a higher risk for kidney disease.

As expected, older cats were more likely to have chronic kidney problems than younger cats. Kidney problems tend to be a disease of senior cats, and this study reinforced the association of age with renal disease. Certain breeds of cats were also at a higher risk for developing kidney problems—Siamese, Himalayans, and Abyssinians. Diet was not looked at in this study but is considered to be a factor in the development of kidney disease.

Dental disease may be related to renal problems due to associated presence of bacteria in the bloodstream (bacteremia), which can occur secondary to bacterial infections. Bacteria can travel from the infected mouth to the kidneys and establish an infection there.

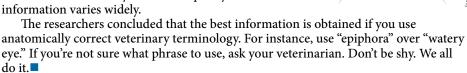
The take-home message for cat owners is that dental care is important. Starting a dental-care program early on with kittens or new feline additions to your family is important for overall health and longevity. Toothbrushing is considered the gold standard for preventive pet dental care. See "Take Charge of Your Cat's Dental Health," October 2017; available on catwatchnewsletter.com.

JAVMA Vol 252 #6 March 15, 2018 Survival analysis to evaluate associations between periodontal disease and the risk of development of chronic azotemic kidney disease in cats evaluated at primary care hospitals

Do You Google?

Study proves the more technical you are, the better

id you know that what you type into that searchengine box can make a world of difference when it comes to veterinary information? A 2010 study proved what most of us already knew: The quality of Internet information varies widely.





If you're on Facebook, stop by and see our CatWatch page



e've opened a Facebook page for *CatWatch* to share timely information about product recalls, illnesses, outbreaks, studies, and just-for-fun finds and events. Please, take a peek and, if you enjoy what you see, give us a Like!





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Cornell University College of Veterinary Medicine Feline Health Center

For information on your cat's health, visit the Cornell University College of Veterinary Medicine, Cornell Feline Health Center website at www.vet.cornell.edu/fhc/.

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Fleas continued from p. 1

cat. Ideally, she should have a bath with a flea shampoo. That removes and kills any adult fleas on her and will get rid of the flea eggs on her coat. Be sure to bathe all pets that come into the house.

You also need to follow up, so more fleas don't move to your cat once she is flea-free. This usually means some type of topical medication. Be sure to use products specifically approved for cats. Follow directions exactly as labelled. There are excellent once-monthly topical treatments available. Regular grooming with a flea comb will let you know if more fleas have hatched or moved in.

Killing off the adults found on your cat is merely the first step. There are undoubtedly eggs and larvae in your house. Favorite sites for larvae are in carpets and under furniture. Pupae (the developmental stage after larvae) are commonly found in similar locations. After approximately eight days, the pupal stage metamorphizes to an adult flea, which is stimulated to seek a blood meal from a host by sensing movement, carbon dioxide, and the warm body temperatures of mammals. The pupal stage can survive for months under the right conditions, waiting for the "right" stimuli to hatch.

Your cat is now covered, but you still need to treat the environment—in this case, your house. You have many options. You can hire an exterminator, making sure they are aware that you have pet cats. Your cat will probably need to leave for the day. (Hint: Coordinate her flea bath with the exterminator's visit.)

You might choose to use do-it-yourself "flea bombs." Frequent vacuuming will snatch up many fleas. Replace the vaccum bag after treatment.

Diatomaceous earth can be sprinkled around the house. If you use diatomaceous earth get regular, not pool, grade. Some people and pets may react to the fine dust, so try a small area first. Borax can also be used. These products can be vacuumed up or left in place for a bit, depending upon your living situation.

Essential oils are not recommended for use on cats. Many are toxic, and even nontoxic oils can cause feline skin irritation. (See April 2018 "Are Essential Oils Safe For Your Cat?" at catwatchnewsletter.com.)

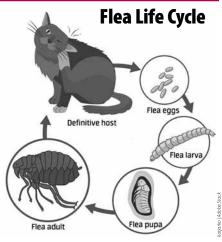
Flea control is not a quick battle, especially if you have multiple pets and some that go outside. This war may go on for months, especially with a heavy flea infestation.

Cat Flea Products

Choose only products labeled as safe for cats

Careful use of pyrethrins can be safe in cats—not so with permethrins! Pyrethrins are natural extracts from chrysanthemums, while permethrin is the synthetic version of pyrethrin. Permethrin is not safe for cats, and some cats may react to pyrethrin, too.

Insecticides are what you need to kill the fleas. Examples of insecticide chemicals that are generally safe for cats include dinotefuran, fipronil, imidacloprid, and nitenpyram.



Insect growth regulators, along with an adulticide, may be helpful. IGR ingredients include s-methoprene and pyriproxyfen.

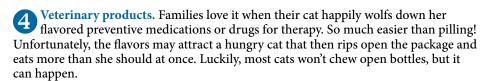
Cats have a unique system for metabolizing many drugs. Instead of using liver enzymes called glucuronosyltransferases, which are deficient compared to dogs and people, cats tend to oxidize drugs. Never use "dog only" medications for your cat! Be careful, too, to look for the age recommendations on the product packages. Most cat flea products state that they are safe for cats eight weeks old and older. Always follow recommended dosages.

⊚ 5 THINGS

Five Common Household Feline Toxins

From the ASPCA, the top five toxins of 2017

Chocolate. Luckily for cat owners, most cats do not show any signs of a sweet tooth. In fact, cats do not have taste buds for "sweetness." Still, your cat might nibble on some chocolate, especially white chocolate, due to the dairy products found in these sweets.



Human food. Human food items are attractive to some cats. That includes liquids, such as alcohol. Garlic, onions, avocadoes, green tomatoes, and green potatoes are on the "don't feed to felines" list as well.

OTC medications. Over-the-counter medications can be consumed by your cat—almost always in error. Flavored medications may attract your cat, especially if they are in cardboard containers or wrappers. Others, such as acetaminophen (Tylenol), are intrinsically toxic to cats. Don't use any OTC drug for your cat without specific veterinary recommendations.

Human prescription medications. Many human medications are toxic to cats. This may be because the dose is way too high (even from one pill) or the medication itself is not safe. Cats are not usually attracted to pill containers, but they will often play with a dropped pill. During play, they may mouth a pill or even accidentally swallow one.

Caring for Your Cat After Surgery

What to do—and not do—after Fluffy's operation

ncisions are delicate. Even if your veterinarian has opted to use stainless steel suture to prevent a pet from ripping the suture material, the skin itself can be torn. If your cat rips open her incision, she may be allowing things that should be inside her body to get out and allowing things from the outside world to get in.

Open incisions put a cat at risk for infection. The skin is an important barrier to prevent pathogens from getting inside your cat. An open, unprotected incision is an open gate for bacteria and debris (including cat litter).

Infections that become established inside the body can be difficult to eradicate. In some cases, open incisions may expose internal organs to direct damage via trauma, dehydration, or interruption of blood supply.

Cats can damage incisions by licking them, chewing at them, or by being too active during the healing process. However, these things can be prevented.

Elizabethan Collars

Also known as the dreaded "cone of shame," Elizabethan collars are a



Talk with your veterinarian about ways to keep your cat away from the sutures. A baby onsie mimics this more expensive cover.

mainstay of post-operative care and any situation in which access by a cat's head to its body (and vice versa) needs to be blocked. The cone acts as a physical barrier that prevents your cat from licking or chewing at incisions on her body and/or scratching incisions on her head, but she can still eat and drink.

Your cat may not like the cone, especially if she is not used to wearing a collar. Be patient. Cats are smart, and she will adjust. If she knocks over her water bowl with the cone, try using a heavier

ceramic bowl or one with a wide base that is more stable.

Cone Alternatives

There are alternatives to the Elizabethan collar that may work for your cat.

Inflatable "donut" collars give your cat full peripheral vision, but cats can reach around these to get to some locations, such as paws.

Human baby "onesies" fit many cats if you add a tail hole. The onesie provides a barrier between your cat's tongue and the incision and isn't as awkward to move around in. Some cats can wriggle out of a onesie, so choose one that isn't too loose and supervise when you first put it on.

Baby and pet socks can work to protect paws. Use fabric tape to secure the top to your cat's leg. Never use rubber bands or string to secure these, as they can constrict the limb and interrupt blood supply.

Limit Activity

Any time your cat moves, she can put strain on an incision. While most incisions should be able to withstand some tension on them, being too active can put excessive strain on the sutures and can cause them to break or tear through the skin.

Keep your cat confined, especially for the first few days after surgery. Large dog crates are excellent for this confinement, but you can also just restrict your cat to one room in your house. You should prevent her from doing things like jumping on and off a cat tree, vaulting between pieces of furniture, or running around the house like a crazy cat.

Definitely do not let a cat that has just had surgery go outdoors. Her cone could easily get stuck somewhere, and she is more likely to encounter pathogens that could get in through the incision.

Ice

If your cat will allow it, holding an ice pack over her incision for 10 to 15 minutes will help to decrease pain and inflammation for the first 24 to 48 hours after surgery. Wrap the ice pack in a thin towel to protect her skin.

Monitor the Incision

A small amount of clear drainage observed during the first day or two after surgery isn't a big concern, but pus, blood, or large volumes of fluid may indicate that something isn't right. Also watch for redness and swelling. If

What You Can Do

Tips for success with an Elizabethan collar

- Leave it on for as long as your veterinarian recommends. It only takes an instant for your cat to turn a secure stitch into an open wound.
- ► Keep it snug. As long as you can fit a finger under the tie, your cat will be able to breathe. If there is more slack than that, she may be able to slip out of it or kick it off with her hind legs.
- If your cat is particularly flexible, put a harness on her and tie the cone to the harness so that it is anchored to her body.
- Set your cat up for success, and limit her access to stairs or furniture that she could have trouble navigating while wearing the cone.
- ▶ Rigid plastic cones tend to yield the best results for most cats. Fabric cones are more comfortable, but also less sturdy, so your cat may be able to fold and reach around it or even flip it backward. If trying a fabric cone, supervise your cat to make sure that she isn't working around it.



That dreaded cone—no cat is happy in it, but it's critical to their healing.



your cat is too active, the skin around the incision may look red and angry. Seromas are fluid-filled pockets that can form around incisions and may require veterinary attention. Seromas can be a result of too much activity.

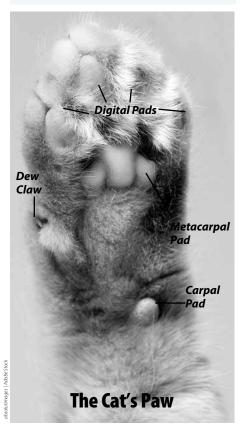
If anything changes or doesn't look right, don't hesitate to email a photo to your vet or bring your cat in to the office. In these cases, a veterinarian or technician will look at the incision, and he or she can tell you if there is nothing to worry about or if the incision is compromised.

Medications

Follow medication instructions. Depending on the location and type of procedure, your veterinarian may prescribe pain medications and/or antibiotics. Pain medications should not be given more often than directed. Antibiotics are commonly prescribed to prevent infection, and there are often long-lasting injectable medications available, so ask your veterinarian about them if your cat hates taking pills.

With just that little effort and vigilance, your cat should recover quickly from surgery, without any post-operative complications.

ANATOMY



Are Plastic Bowls a Problem?

Sometimes it makes sense to just change her bowl

ou may have heard you shouldn't use plastic bowls to feed your cat. Plastic bowls have been thought to cause facial pyoderma, or chin acne, in cats. Plastic allergies have been implicated in some skin problems in children, so it is not an unreasonable concern, but unfortunately there is no scientific data on this phenomenon in cats.

William Miller, VMD, DACVD, Dermatology Section Chief at Cornell University, says, "Presumed bowl reactions were 'common' way back when and theoretically associated with the type of plastic used, aka allergic contact dermatitis to the plastic or colorizer. Red dishes were thought to be more of a problem. As plastics have changed over the years the frequency has decreased or, in my practice, disappeared entirely."

BPA

Bisphenol A (BPA) is a chemical used in the manufacture of some plastics and resins. Commonly found in beverage containers and the lining of metal cans, BPA became a red-flag buzzword when it was found that it can seep into food and drinks and potentially have negative effects on the brain, behavior, and prostate glands of fetuses and children.

These concerns and the widespread use of plastics naturally sparked significant research efforts, but the FDA concluded that "BPA is safe at the current levels occurring in foods."

Bacteria

"Since plastic dishes have or can develop a porous surface, I wonder if the reaction seen isn't due to other things adhering to the bowl's surface," comments Dr. Miller.

The porous surface of some plastics provides an ideal living space for bacteria and can be difficult to clean. This, combined with the presence of cat food, allows the bacteria to thrive and might then transfer to your cat's chin as he eats.

Washing your cat's bowls regularly is the best defense against bacteria. Bacteria are normally found on your cat's skin and in the environment, but the combination of

moisture, food particles, and saliva present in food and water bowls creates an ideal environment for bacterial overgrowth. This overgrowth can present as a biofilm, a thin slimy layer of bacteria and other materials that sticks to the bowl. Sometimes biofilms are visible, but they may also be transparent—feel the bottom of your cat's water bowl after dumping out old water to check for any sliminess. Washing your cat's bowls frequently will prevent biofilm.

Options

There are lots of different bowl options available for our cats' dining pleasure. BPA-free plastic bowls abound, or you can avoid plastic entirely and use stainless steel or ceramics.

If you are caring for any outdoor cats, however, the Cornell Feline Health Center warns that shallow ceramic bowls can allow water to freeze faster and suggests using a thick plastic bowl instead (a solar water heater may be the ideal solution here).

Stainless steel bowls have excellent durability and are also easy to clean. If your cat likes to play with his water bowl, try using a wide based bowl with rubber on the bottom. The wide base makes the bowl more difficult to tip compared to bowls with a wide lip at the top, and the rubber bottom will prevent skidding.

To put more fun in mealtimes, you can also skip the food bowl altogether and opt for a cat-friendly food dispensing toy. These puzzle toys are excellent options for overweight cats who need more exercise and for young, energetic cats who need positive channels for their enthusiasm and athletic prowess.



If your cat is saying, "No, thank you, " like this Devon Rex, you naturally think it's the cat food. It may be wise to consider the bowl as well.

Protozoal Intestinal Parasites

Microscopic protozoa can set up shop in your cat, causing diarrhea and more

hen the topic of intestinal parasites comes up, people immediately think of worms, such as roundworms (ascarids) and tapeworms. However, other parasites may be more common and equally debilitating for your cat.

Coccidia

Coccidial infections are extremely common in cats, especially kittens. These are *Cystosiospora*—also called *Isospora* species. Coccidia are microscopic protozoa. Luckily, coccidia tend to be speciesspecific, so feline coccidia won't infect dogs or people.

Oocysts (eggs) are passed in the stool and then develop into the infective stage—sporulated oocysts. These sporulated oocysts are tough—they can survive for up to a year if environmental conditions are right.

Most cats are exposed to coccidia through environmental contamination, such as walking through contaminated soil and then grooming their feet. They can also acquire them by eating transport hosts, such as mice. The Cornell Feline Health Center says that cats who eat flies and other bugs may get infected that way, too, if the insects have oocysts on their bodies.

Meet T. foetus

This little guy can be difficult to distinguish from giardia

There is a "new kid" on the block when it comes to feline protozoa. *Tritrichomonas foetus*, also known as *T. foetus* or *T. blagburni*, is a source of chronic diarrhea, especially in kittens and cats under two years of age. It can be difficult to distinguish giardia and *T. foetus* under the microscope without experience in evaluating motile protozoa. *T. foetus* is not affected by the usual giardia treatment drug, metronidazole, but requires ronidazole for therapy.



Your kitten could carry Coccidia in from the outside on her feet. Diarrhea may be your first clue.

Kittens are the most likely to show clinical signs of illness with coccidial infections. You may notice your kitten has diarrhea with a lot of mucus, vomiting, and a lack of appetite. Dehydration and weight loss may follow. The diarrhea may be bloody, and severe cases can lead to death. Dehydration is especially dangerous for kittens and for stressed adult cats.

With age, most cats develop some degree of immunity against these parasites. Cats living in crowded conditions, such as shelters or group housing, may be predisposed to coccidia infection, both due to stress and the difficulty in keeping the premises free of infective oocysts.

A diagnosis of coccidiosis is achieved via a fecal flotation. It is important to identify the coccidial species. For example, *Eimeria* oocysts (a rabbit parasite) can mimic *Isospora*, but do not cause any clinical illness in felines. A cat may acquire *Eimeria* by hunting and eating rabbits and will pass *Eimeria* in the stool, but the cat will usually not be clinically affected.

Once coccidiosis is confirmed, cats should receive treatment.
Sulfadimethoxine is currently the only drug FDA-approved for treatment of coccidiosis in cats, but veterinarians have

used other medications successfully, including trimethoprim sulfonimide. It is important to follow up a diagnosis of coccidiosis with good hygiene and disinfection to remove or destroy any sporulated oocysts in the environment.

Recheck fecals should be performed to confirm that the treatment has been effective.

Giardia

Giardia are protozoal parasites that can infect many species, though certain types are species specific. These one-celled organisms have a flagella (a microscopic thin appendage) on one end that moves them around. They are best seen microscopically with a fresh fecal sample. An Enzyme Linked Immunosorbent Assay (ELISA) test can identify antibodies to giardia, verifying an infestation. Cysts are not shed continuously, so testing samples obtained over a couple of days may be required.

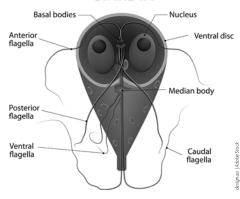
Cats become infested with giardia by eating or drinking cysts that pass through the feces and contaminate food or water sources, or by grooming after picking up cysts on their feet or hair coat. Like coccidia, giardia oocysts are tough—not killed by freezing or even the chlorination carried out by municipal water-treatment plants, as reported by the Cornell Feline Health Center. You may notice diarrhea in your cat, often with pale, "slimy" stools that have a bad odor. Foul gas may be passed, and over time, you may notice weight loss in your cat.

Spreading Giardia

Beavers aren't the only guilty party with this disease

You may see giardiasis referred to as "Beaver Fever," since beavers are believed to be a major source of giardial contamination of streams and ponds. However, many species can contribute to contamination of water sources, including humans, livestock, and deer. Various groupings of giardia are referred to as "assemblages." Think of these as "species" of this protozoal parasite. Cats are susceptible to Assemblage F and A1. Humans are susceptible to Assemblage A1.

GIARDIA



Metronidazole and fenbendazole are most commonly used to treat clinical cases of giardiasis in cats. These are off-label uses of the drugs, but with careful dosing, they have been used in cats successfully and safely for years. Unfortunately, some giardial resistance to these drugs is developing, so repeat treatments may be required.

It is important to disinfect living areas thoroughly to get rid of giardial oocysts. It may also help to bathe your cat right before treatment to remove any cysts that may be on her hair. In addition, try to determine where she got the giardia to begin with and take action to avoid those areas. That might mean keeping your cat indoors, which is always a safe option.

If your shelter or cattery becomes infected with giardia, you must treat all the cats, bathe them, and then house them in a clean area while you thoroughly disinfect the primary living quarters. Consider quarantining and testing any cats or kittens you plan to add to group housing to ensure that they do not have giardia. Practice excellent hygiene while handling infected cats and

Quarantine

Avoid spreading the protozoa

If possible, quarantine any new additions to your feline family for at least two weeks. During that time, run at least two fecal checks, and possibly ELISA testing, to look for any parasites. If you find any parasites, treat as indicated by your veterinarian and then recheck fecal evaluations.

Bathe the new additions right before adding them to your household and again when they are cleared to leave quarantine.



during cleaning, since Assemblage A1 can infect people.

There is a giardia vaccine, but this is not a core vaccine, which means it is only recommended when you have a widespread, chronic problem that is not responding to cleaning and treating. Vaccination is best as a preventive measure, so the giardia vaccine may be recommended for high-risk cats or where giardia infestations are persistent. The vaccine does not seem to assist in treatment, however, it may reduce shedding of cysts, allowing you to gradually get ahead of the protozoa.

Cryptosporidiosis

Cryptosporidium felis is a protozoal parasite that has many similarities to coccidia. Normally, it is host-specific and prefers to set up camp in the small intestine. The diarrhea can lead to dramatic fluid loss, which is most dangerous in young kittens. Luckily, healthy adult cats can generally mount an immune attack and fend off this parasite.

Cats acquire these protozoa via fecal-contaminated food, water, or soil.

The sporulated oocsyts can exist in the environment and are resistant to many disinfectants, including the chlorine used in municipal water-treatment plants. Diagnosis requires microscopic examination of a fresh stool sample or an ELISA test.

Treatment requires the use of tylosin or azithromycin. Post-treatment fecal rechecks are recommended.

Prevention

These tiny parasites often occur concurrently in stressed cats or cats with immune deficiencies. It is important to evaluate fecal samples carefully and to perform follow-up rechecks.

Careful disinfection, along with bathing all cats in the household or group, can help to reduce the incidence of these infections.

Keeping cats indoors so they have limited exposure to infected soil and water will also help. Provide your cats with good nutrition, parasite control, and regular veterinary care. A healthy adult cat can often fend off these infections via her own immune system.

EMERGENCY

Handle Choking Properly

Have tweezers in your first-aid kit

hoking is an emergency. "Cats can choke on kibble or toys, but most commonly, they come to the emergency room choking on a foreign object due to chewing on thread



Yarn is a real choking hazard.

or swallowing needles," says Dan Fletcher, DVM, Ph.D., Assistant Professor of Emergency and Critical Care at the Cornell University College of Veterinary Medicine. You'll probably see your cat standing wide-legged, coughing and gasping for air.

Dr. Fletcher advises that if the cat is conscious and choking but breathing without difficulty, wait a few minutes to see if he can dislodge the object himself. If he can't or is having difficulty breathing, open his mouth by grasping the top of his muzzle with one hand and the lower jaw with the other.

If you can't see the object, get to the veterinarian immediately. If you can see it, remove it, unless it's string, yarn, or tinsel. "If a linear object has been swallowed, it may have trailed down the intestinal tract," Dr. Fletcher says. "Pulling these objects can cause the intestines to tear or rupture, leading to life-threatening infection in the abdomen. These animals should be taken to the nearest veterinarian immediately."

If your cat begins to gasp, wheezing, he is not able to get full breaths of air. He may collapse and stop breathing. If your cat is unconscious, open the mouth, pull the tongue out past the canine teeth, and look down the throat. Try to remove the object with your fingers or tweezers. "But if the object is stuck and there is resistance to removal, it should not be forced out," Dr. Fletcher says.

"Any pet who collapses should be taken to the closest veterinary clinic, even if his condition improves," Dr. Fletcher says. "Apparent choking is often due to other processes such as lung or heart disease, infections, or inflammation of the airways that can impede breathing and can rapidly progress to become life-threatening."

Neutered Males Are Spraying

With several cats, it can be a territoriality issue

I need information on spraying. I have four neutered males that are housed exclusively indoors, and I am having problems. Can you provide any advice about how best to address this issue?

Thanks for getting in touch, and for taking these kitties into your home. I understand that this must be frustrating, and while it will likely take a more in-depth consultation about your specific situation to devise the best plan, perhaps a few points about this common feline behavior will help you.

The first thing to consider is to make sure that there is no medical cause for this behavior. Urinary-tract infections/stones and sterile cystitis, for example, can cause cats to eliminate inappropriately, so please make sure that none of these cats has a medical issue causing this behavior.

Not knowing how many/which of these kitties are spraying also makes it difficult, but it does sound like your cats' housing situation (four males in one space) may predispose to territoriality. It's true that intact male cats are more likely to spray than neutered males, but the latter can also be guilty, particularly if they were neutered at a later age. Cats may spray to mark their territory, and the simplest thing to do is to assure that you have sufficient numbers of litter boxes available to address territory battles that occur over litter boxes.

A good basic rule is that you should have the same number of litter boxes as the number of cats, plus one. In your case, this would mean five litter boxes. These should be placed away from high-traffic areas, but not in places that are hard to access and/or dark and dingy. They should also be placed in

Coming Up ...

- ► When a Back Leg Goes Limp
- Which to Feed? Canned vs. Dry Food
- You Can Easily Clean Your Cat's Ears
- Feline Mouth Sores and Ulcers



Elizabeth works with the Cornell Feline Health Center in providing the answer on this page (vet.cornell.edu/fhc/).

such a way as to minimize the likelihood that the user can be "ambushed" by other cats or pets when using the litter box. Also, be sure that you clean litter boxes frequently.

If the problem began when you brought a particular cat into the household, it may be that he was brought into a stable territorial situation that was disrupted by his arrival. My best advice if this is the case is to foster good relationships among your cats by playing with them simultaneously and giving positive reinforcements for good behavior while doing this. Of course,

making sure that your cats are not bored by providing exercise and dedicated play time is important in general, as is keeping things in your home relatively regular with respect to scheduling (feeding, play time, bed time, etc.).

Cats can also be perturbed and prompted to act territorially by things they see outside, so restricting their views of the outside world with curtains or blinds can help if this is the case. New people in your home, moving to a new home, having contractors/strangers in your house, and the loss of other pets and/or people that were in the home can upset cats to the extent that they will spray. In these cases, dedicated play/affection time, with positive reinforcement and emotional support, can help make a cat less stressed and therefore less likely to want to spray.

Since scent is important in a cat's territory-marking behaviors, it's important to try to remove the scent from areas that have been sprayed as quickly as possible, using commercial products designed to remove animal stains/odors. Speaking of scents, some owners have minimized stress by using synthetic feline pheromones (spray or diffusor).

I hope these pointers help. If they do not, I recommend that you consult with your veterinarian and/or a veterinary behaviorist. Best of luck. Please send me an update when you can.

Sincerely, Elizabeth



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