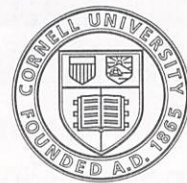


Cat Watch

May 2021 - Vol. 25, No. 5



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

© THIS JUST IN

Overworked Veterinarians COVID-19's impact

Chris Roth, DVM, writes on a PetsBest blog that COVID-19 has caused pet ownership to surge by 10%. This has left veterinarians overworked and stressed by COVID-19 restrictions while pet parents find it difficult to get services.

It stands to reason that veterinarians in states with relatively few veterinary professionals may be unable to keep up with the growing demand for their services. New Jersey has the lowest concentration of veterinarians in the United States. The 15 states with the lowest concentration of veterinarians are:

15. West Virginia (.91x concentration)
14. New Mexico (.90x concentration)
13. Massachusetts (.88x concentration)
12. Mississippi (.88x concentration)
11. Rhode Island (.86x concentration)
10. Illinois (.84x concentration)
9. California (.84x concentration)
8. New York (.80x concentration)
7. South Carolina (.80x concentration)
6. Utah (.76x concentration)
5. Hawaii (.76x concentration)
4. Texas (.76x concentration)
3. Nevada (.75x concentration)
2. Arkansas (.73x concentration)
1. New Jersey (.68x concentration) ■

Natural Solutions for Cats That Hunt

Cats who play and are fed a meat-rich food hunt less

Outdoor cats taking down birds has long been a point of contention between bird lovers and cat lovers. Feeding a cat premium commercial food in which proteins came from meat resulted in a 36% reduction in the number of prey animals brought home, and five to 10 minutes of daily play resulted in a 25% reduction. The study used a 12-week trial of 355 cats in 219 households.

This is not surprising to veterinary behaviorist Sharon Crowell-Davis DVM, PhD., DACVB, a 1983 graduate of the Cornell University School of Veterinary Medicine. "Meat and play satisfy cats' natural instinct to hunt," she explained.

"Some cat foods contain protein from plant sources such as soy, and it is possible that, despite forming a complete diet, these foods leave some cats deficient in one or more micronutrients, prompting them to hunt," said Martina Cecchetti, a doctoral student at the University of Exeter who helped conduct the experiments. The researchers said it was not clear which elements of the meaty food led to the reduction in hunting.

Lisa George, from Helston in Cornwall, who looks after Minnie, a 3-year-old tabby cat that took part in the trial, said: "Minnie loves to hunt. More often than not, she will bring her prey home and let it go somewhere in the house. We've had birds in the bedroom, rats in the waste paper bin—which took us three days to catch—and rabbits in the utility room.

"On changing Minnie's food (previously supermarket brand), to Lily's Kitchen, I found she hardly hunted at all. This continued the whole time she was on this food. I can honestly say I couldn't believe the difference as regards her hunting behavior."

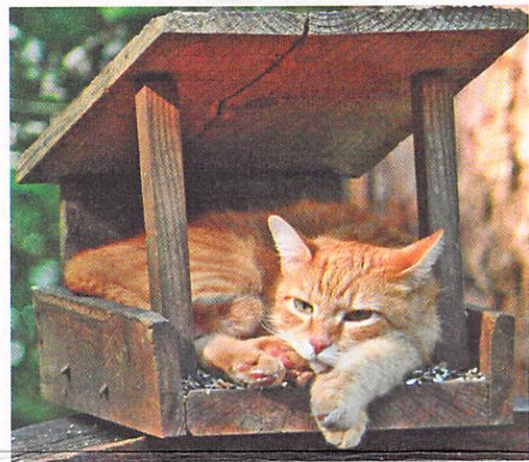
"Previous research in this area has focused on inhibiting cats' ability to hunt, either by keeping them indoors or fitting them with collars, devices, and deterrents," said Professor Robbie McDonald, of Exeter's Environment and Sustainability Institute. Plus, says McDonald, some cat owners worry about the welfare implications of restricting a cat's outdoor access by keeping them indoors.

The researchers used colorful collar covers from Birdsbesafe, which reduced the numbers of birds captured and brought home by 42%. However, the collars had no effect on hunting mammals.

Cat bells had no discernible overall effect, although the researchers say the impact on individual cats varied widely, suggesting some cats learn to hunt successfully despite wearing a bell.

Play in the study involved owners simulating hunting by moving a feather toy on a string and wand so cats could stalk, chase, and pounce. Owners also gave cats a toy mouse to play with after each "hunt," mimicking a real kill. ■

Cecchetti, M., et al. Provision of High Meat Content Food and Object Play Reduce Predation of Wild Animals by Domestic Cats *Felis catus*. *Current Biology*, 2021; DOI: 10.1016/j.cub.2020.12.044. *Science Daily*.



We're not so sure this cat's perch inside a birdfeeder is going to pay off, but you have to admire his moxy.



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Deadly Diarrheal Disease in Kittens and Kids

The link may help develop treatments for both

Kittens could be the model for understanding an infectious, sometimes deadly, diarrheal disease in both animals and children, according to new research from North Carolina State University.

Diarrheagenic *Escherichia coli* (DEC) bacteria kills up to 120,000 children under the age of 5 worldwide every year. Atypical *enteropathic Escherichia coli* (aEPEC) are a form of DEC increasingly associated with diarrheal disease in humans and in kittens.

“We were looking for causes of infectious diarrhea in kittens, which has a high mortality rate, and came across this pathogen,” says Jody Gookin, Professor in Veterinary Scholars Research Education at NC State and one of the researchers.

The researchers performed a genomic analysis of aEPEC isolates from both healthy kittens who were colonized by the bacteria and kittens with lethal infections to try to determine why aEPEC causes illness in some kittens but remains dormant in others.

They then compared the genomic data from both groups of kittens to human aEPEC isolates. “The aEPEC isolated from humans is the same as that found in healthy and sick kittens,” Gookin says. “There weren’t any unique genetic markers that could explain why one group of bacteria causes disease while the other one doesn’t. The only thing we found were behavioral differences between the isolate groups.

“The pathogenic, or disease-causing, isolates had more motility—they were better swimmers. AEPEC bacteria cause disease by attaching to epithelial cells lining the intestine. Those cells then secrete fluids, causing diarrhea. So, the better or farther aEPEC bacteria could swim, the easier it would be to find cells and attach.” The findings point to kittens as a potentially valuable model for further exploration of aEPEC on the molecular level for treatment approaches for both humans and felines. ■

Infect Immun. 2021 Feb 16;89(3):e00619-20. doi: 10.1128/IAI.00619-20. Print 2021 Feb 16. NC State.



Celine Prunzel/istockphoto

Data Can Help Shelters Assess Kittens

Focusing care may be based on mortality risk factors

Researchers in the ASPCA’s Strategy and Research and Shelter Medicine departments examined the medical records of a group of 1,367 kittens under 8 weeks of age from the ASPCA Kitten Nursery during the 2017 kitten season. They looked at clinical signs and diagnoses of weight loss, diarrhea, anorexia, upper respiratory tract infection (URI), trauma, panleukopenia, and whether kittens with these problems died or were euthanized. They considered age, weight, and body condition score when admitted, sex of the kitten, and date of when during the season the kitten was taken in.

The information tabulated from the study is geared to give foster homes and shelter staff criteria for evaluating new kittens and focusing care to achieve the best possible outcomes. For example, the highest mortality risk factor identified was weight at intake with the lightest kittens having a risk of death 13 times greater than those kittens in the heaviest weight group. Kittens with diarrhea had a risk of dying that was 45% higher than kittens without diarrhea; 72% of the kittens in this study were diagnosed with diarrhea at some point during their nursery stay, making it the second-most commonly noted clinical sign after weight loss.

The study concluded that kittens in the lowest weight category at intake were at highest risk of mortality, followed by kittens diagnosed with panleukopenia virus and then those displaying weight loss. Upper respiratory infection, anorexia, or a thin body condition resulted in moderate increases in the mortality risk while diarrhea brought about a smaller increase in the risk of dying.

This information provides insight into which kittens are at greatest risk of mortality in a nursery population. Mortality risk factors can be used to aid kitten nursery programs in fine-tuning protocols to quickly identify kittens at increased risk of dying so that more effective interventions can be carried out. ■



CatWatch

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CatWatch is an independent
newsletter produced in collaboration
with the Cornell College of Veterinary
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Subscriptions: \$39 per year (U.S.) • \$49
per year (Canada). For subscription and
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CatWatch[®] (ISSN: 1095-9092) is
published monthly for \$39 per
year by Belvoir Media Group, LLC,
535 Connecticut Ave., Norwalk,
CT 06854-1713. Robert Englander,
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Heartworm: Potentially Deadly

It's scary because there is no treatment for it

Between 12% and 25% of indoor cats can harbor heartworm (*Dirofilaria immitis*), depending upon locale, says the American Heartworm Society. Heartworm infection, well-known in dogs, can damage the host animal's heart, lungs, and blood vessels. The pulmonary arteries are a primary target for adult worms (these carry blood to the lungs to be oxygenated).

Cats are more resistant to heartworms than dogs, as they are not the natural host for this parasite; and the number of worms seen in feline infections is usually much lower than that seen in canine infections. These worms, however, can cause serious inflammatory reactions in the blood vessels and other tissue in the lungs, a grouping known as "heartworm associated respiratory disease (HARD)." HARD can be difficult to distinguish from other lung ailments, like asthma.

There are no approved treatments for heartworm in cats. The medication for dogs is toxic to cats. Your best defense is prevention (see sidebar).

Those Darn Mosquitoes

Heartworm disease is spread by a mosquito after it has bitten an infected animal such as a dog (infected cats are considered a dead-end host, unlikely to spread the infection). When the infected mosquito bites its next victim, it transfers the parasite.

"Between 60 and 100 days after the initial infection," says Dwight Bowman,

PhD, professor of parasitology at Cornell University's College of Veterinary Medicine, "you can start to see signs of pathology in an affected animal's body, even though the parasite has not yet reached maturity."

The most common clinical signs of heartworm infection (see sidebar) may be confused with feline asthma or another bronchial disease. In some cases, a cat may survive a heartworm infection for an extended period of time before succumbing to another feline disorder. In an acute case of heartworm disease, a cat may die suddenly.

Some infected cats may collapse, seize, or die suddenly. If a cat has adult heartworms (often as few as three to six of them), secondary complications may occur when the heartworm dies (they usually live 2 to 4 years in cats). Toxin release from the dead heartworm and the resulting severe inflammatory flareups, along with possible clot formation, can lead to acute death of the cat.

Screening Tests

The best heartworm screening blood tests in cats are those that measure antibodies produced by the cat against the worm. The antigen test that is commonly used in dogs detects only adult female heartworms, and since feline heartworm infections tend to have more male heartworms, antigen testing may return false-negative results in cats. An antibody test may be positive from a current or past infection.

A positive screening test will be followed by a full physical examination, a complete blood panel, and chest radiographs. Depending upon the results, your veterinarian may suggest an echocardiogram to look for evidence of adult worms in the heart.

Treatment

If your cat is infected, treatment is primarily supportive care. Corticosteroids such as prednisone can reduce inflammation. Bronchodilators may help

What You Can Do

- ▶ Minimize mosquito exposure with repellents.
- ▶ Consider planting basil, catnip, lavender, lemon balm peppermint, or rosemary in containers near doors and windows to deter mosquitoes.
- ▶ Using a good preventive medication such as selamectin, milbemycin, or ivermectin is a necessity.
- ▶ Start kittens on a heartworm preventive as early as the product label allows, no later than 8 weeks of age.

cats in respiratory distress. Cats in acute distress will require hospitalization and supplemental oxygen. Even in the event of spontaneous resolution of the heartworms, residual damage to the lungs often remains.

If your cat is not showing symptoms and is diagnosed with heartworm disease on a screening test, the American Heartworm Society suggests waiting out the adult worm's two- to three-year life span with chest radiographs and a veterinary examination every six months.

Bottom Line

Don't assume your indoor cat is safe from mosquito exposure. All cats need year-round protection against heartworm disease. Selamectin, milbemycin, or ivermectin are all good options for prevention. Some heartworm preventives will also fight other parasites, like fleas. Discuss options with your veterinarian. ■



Yes. That's a mosquito on this indoor cat's nose.

Signs of Heartworm Disease

- ▶ Coughing
- ▶ Gagging
- ▶ Lethargy
- ▶ Loss of appetite/weight loss
- ▶ Rapid, labored breathing/wheezing
- ▶ Vomiting

Oozing Tumor-Like Bumps

What's behind eosinophilic granuloma complex?

Normally, one type of your cat's white blood cells—called eosinophils—quietly do their job, healing lesions and preventing infections. But sometimes they overreact to a perceived threat, causing oozing masses, yellowish-pink ulcerations, or big tumor-like bumps. The lesions can be painful or itchy and, worse yet, can progress to cancer in rare cases.

These masses can appear almost anywhere on your cat. In some cases, particularly in young cats, the lesion may resolve on its own, but you must monitor the areas carefully to ensure the problem doesn't worsen.

There are three distinct types of these eosinophilic lesions, but they all fall under the umbrella term "eosinophilic granuloma complex."

"What ties them together is the most likely cause. They deserve to remain as a grouping because all three show the activity of eosinophils and have an apparent allergic condition as the triggering event," says William H. Miller Jr., VMD, professor emeritus of medicine, Section of Dermatology at the Cornell University College of Veterinary Medicine.

The three types of lesions are:

Eosinophilic ulcers. These lesions have a well-defined border, are often red, but not painful or itchy. Usually found on the lip, they are also called rodent ulcers or indolent ulcers. Rarely, these ulcerated areas will morph into cancerous growths.

Eosinophilic plaque. This type is a raised, sharply defined area, usually on the cat's abdomen or upper legs. It tends to be itchy, which makes the cat scratch at it, which can then lead to a bacterial skin infection, or pyoderma.

Eosinophilic granulomas.

Presenting with a superficial, spherical mass of immune-system cells, these lesions are usually raised, clearly defined, and yellowish-pink. They can also be linear, and are usually found on the rear legs or in the mouth. Young cats are most likely to have eosinophilic granulomas.

Making matters worse, mast cells (another type of white blood cell) often also play a role in these lesions and will degranulate and cause intense licking and scratching. This, in turn, intensifies the need to lick, scratch, and chew. It's a vicious cycle.



This kitty has an eosinophilic ulcer.

Diagnosis

You may notice your cat licking, chewing, or scratching vigorously and frequently at one spot. This is especially true of eosinophilic plaques and granulomas located on the body.

For ulcers on the lip or affected areas in the mouth, excessive drooling, possibly blood-tinged, might be the first clinical sign. Despite the appearance of the lip and oral ulcerated areas, most cats eat and drink normally. Some cats will have enlarged lymph nodes in the area, such as under the jaw.

A fine needle aspirate or biopsy are the definitive ways to diagnose these conditions, although some veterinarians are comfortable making a presumptive diagnosis based on appearance, location, examination, and history, often in an attempt to save the client money. "Just because it looks like an ulcer, plaque, or granuloma, doesn't mean that it is one," says Dr. Miller. "The lesion—especially if it's big, chronic, or poorly responsive to conventional therapies—should have a cytology or biopsy done."

Isolating the Cause

Eosinophilic skin conditions in cats are usually caused by hypersensitivity allergic reactions. If you can identify and remove the cause, your cat is much less likely to have a recurrence. Eosinophilic skin conditions may lead to hypersensitivity reactions to insect bites. Major offenders include fleas and mosquitoes.

Eosinophilic plaques are often due to adverse food reactions. Lesions start around the head and ears initially but can spread to the abdomen and are usually itchy. Adverse food reactions require

feeding a restrictive hypoallergenic diet for at least six to eight weeks.

You can prepare a home-cooked hypoallergenic diet (in which certain ingredients are eliminated) to determine whether your cat is allergic to some component of her current diet (proteins are the most common culprit), but we advise consulting with a veterinary nutritionist to ensure it is balanced and complete if you choose to do this.

A better choice may be a commercial hypoallergenic diet that has a novel protein source, like kangaroo, or a commercial hydrolyzed diet. A hydrolyzed-diet food contains protein that has been chemically broken into highly digestible small pieces, reducing the risk of an immune reaction.

Airborne allergies, known as atopy, are best identified with intradermal skin testing. If atopy is diagnosed, your cat may require periodic injections to desensitize her immune system.

Treatment

Antihistamines or corticosteroids can control itchiness and help your cat become comfortable quickly. Treatment may be required for weeks or months to totally resolve the problem. Adding fatty acids to the diet—with veterinary approval—can help to minimize your kitty's symptoms.

For cats who don't handle steroids well, cyclosporine, an oral immunosuppressant drug, may work. Cyclosporine should only be used for indoor-only cats and cats on a cooked diet (commercial or home-prepared). The immunosuppression caused by this drug can predispose cats eating raw diets—which we do not recommend—to infections by pathogens that can be found in them.

Topical treatment and antibiotics may be necessary if the areas are infected. Use of an Elizabethan collar or other device to prevent her from biting or scratching while she heals is critical.

Follow through with treatment. The lesions look better on the surface before they are healed in the deep tissue. If treatment stops too soon, the odds are that it will come back and may become resistant to conventional medications.

Areas that resist treatment may progress to cancer, such as squamous cell carcinomas. For these cases, a biopsy is important, and if the sore is determined to be cancer, your veterinarian will discuss therapeutic options with you. ■

When Accidents Happen

Using first-aid care to treat feline lacerations

You hear glass shatter in the kitchen, an alarmed meow, and your cat comes streaking around the corner, trailing blood.

Cats that go outside are the most likely to sustain injuries due to interactions with other animals or to get cuts from plants, fences, or equipment, but indoor cats can get themselves into trouble, too. Whether your kitty tangled with your favorite ornamental cactus, ran through a home-improvement project, or got caught red-pawed shattering the antique china, a laceration requires prompt attention.

Stop the Bleeding

Once you have identified the location of the wound, apply pressure to stop the bleeding. A non-stick pad is ideal, but any clean cloth or towel will do in a pinch. If possible, position your cat so that the cut is above her heart so that gravity will help you to slow the bleeding as well.

If your cat does not like to be held, you can place a bandage. Place a non-stick pad, sterile gauze, or a clean cloth next to the wound, then wrap it with vet wrap or medical tape. Masking tape can also work if needed—do not use duct tape, as it can cause significant damage to your cat's skin when removed. Do not use a rubber band, either, as this can obstruct blood flow. The bandage should be snug, but not so tight that you can't insert at least one finger underneath it.

If your cat bleeds through the cloth or bandage, apply an extra layer. Dislodging the first layer might break up any clots that have formed and cause the



This laceration needs to be cleaned, even though the bleeding stopped.

bleeding to get worse. Heavy bleeding is an emergency and requires immediate veterinary care, so your goal is to control the bleeding as much as you can while en-route to the veterinary hospital.

Clean the Wound

Small cuts and lacerations may be manageable at home, but it is always a good idea to check in with your veterinarian to be sure that further therapy is not warranted. If you are able to stop the bleeding, gently assess the wound. Even tiny cuts on the ears and face can bleed profusely, making the situation seem much worse than it actually is. Lacerations that have severed an artery or vein will usually bleed more stubbornly than cuts and scrapes that only involve skin.

Pat the wound with a clean cloth and gently flush it with either sterile saline or fresh water. Flushing the wound will help to dislodge any debris or bacteria that may be present. You may be able to gently remove larger objects, such as shards of glass or metal. If you can see glass or other debris but can't get it out easily, your cat may need to be sedated by your veterinarian to properly clean the wound.

Small cuts that don't go all the way through the skin will often heal on their own. Once you have cleaned the area, keep your cat confined to an area in your house where you can keep an eye on her for the next few days. If the cut is on her paw pad, confine her to a single room or a large dog crate to limit her activity so she isn't constantly stepping on the paw and opening the cut back up. Check at least once a day to make sure that the cut is clean and hasn't opened up. Signs of infection include red skin, skin warm to

What You Can Do

- ▶ Apply pressure until the wound stops bleeding
- ▶ Flush the wound with sterile saline or clean water
- ▶ Call your veterinarian to determine if your cat requires urgent care or antibiotics
- ▶ Always call your veterinarian if you suspect the injury is due to an animal bite

the touch, swelling, and pus. If your cat starts to show signs of infection she needs to be seen by your veterinarian.

Visit Your Veterinarian

Most cuts can benefit from a veterinary exam to evaluate the severity of the wound and get your cat started on antibiotics (especially important if the laceration occurred outside or has debris in it—these “dirty” wounds can easily get infected). Minor lacerations that only affect the skin can often wait for an appointment during regular business hours.

A laceration is an emergency if:

- ▶ You can't stop the bleeding within 15 minutes
- ▶ Your cat is bleeding profusely
- ▶ The cut exposes muscle, bone, or nerves
- ▶ Your cat shows other signs of illness (lethargy, weakness, difficulty breathing, loss of consciousness, abnormal behavior)

If you are unsure of whether or not your cat requires emergency care, call your veterinary office. Most clinics now have email and/or office cell phones and can give you instructions to take a photo of your cat's lacerations and send it to them. The staff can then help you schedule an appropriate appointment.

If your cat is bleeding heavily, maintain pressure on the wound while en route to the hospital. Hold your cat while a friend or family member drives, or apply a bandage. Your cat should be restrained to keep her safe during the drive. Wrap her in a towel to prevent her from scratching you if the car hits a bump, or place her in a cat carrier. If you have a fractious cat and don't have a cat carrier, a pillowcase can work well as emergency kitty transportation. ■

Safety First

Always remember that an injured animal can lash out unexpectedly. Even the sweetest cat might bite or scratch when she is hurt and scared. Be cautious when handling your bleeding cat, and wrap her in a towel or use a cat muzzle if available to prevent her from accidentally biting or scratching you.

Fractious cats may require sedation to examine and treat the wound.

Angry, Aggressive Cats

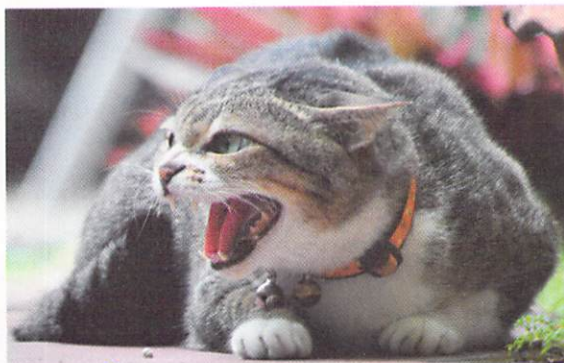
Manage an attacking cat with proper intervention

About 27% of cat surrenders to shelters are due to aggression problems. That's sad, really, as most cats provide a warning before an attack, and you can usually prevent it from happening. However, you need to be observant.

If you notice your cat's stance and expression changing, move away from the cat. Whether aggressive or frightened (see sidebar), your cat may well scratch or bite you. Putting a laundry basket over an upset cat is an option to keep both of you safe in a pinch, but the most important thing is to provide a way for your cat to feel safe and unthreatened.

"The most common situations involving a pet cat and her family are 'over petting' and redirected aggression," explains Katherine A. Houpt, VMD, PhD, James Law Professor Emeritus, Behavior Medicine at the Cornell University's College of Veterinary Medicine.

Many cats have a limited tolerance level for petting, and things like static electricity or physical pain can make the experience unpleasant (if you suspect pain, it's time for a veterinary visit). Your cat may warn you that she's tiring of it



At first glance, this kitty looks angry, but if you look closer at her crouched position, ears out to the side, tucked tail, she's more likely scared.

by flicking her ears, twitching her tail, or rippling the skin on her back. An onset of hissing or the cessation of purring is a solid hint it's time to stop.

In redirected aggression, a cat may become excited and redirect her aggression from the stimulus to a person or nearby pet. Redirected aggression can have many inciting causes, such as a sudden loud noise or an unpleasant interaction with another pet (or a stray outside who gets your indoor cat worked up). If you need to break up a fight between your cats, get them separated, but don't try to console either one. A painful scratch is likely to be your reward.

Handling Aggression

Redirected aggression is one of the most dangerous types of cat aggression because these bites are uninhibited. The attacks can be frightening and damaging. Considerable delay, even hours, can occur between the initial arousal and the redirected aggression.

Some of the best techniques for dealing with an aggressive cat start with management, says Dr. Houpt. For a cat that is easily triggered into redirected aggression by things like cats outside, close off her access to windows. Discourage stray cats (that means no feral-cat feeding stations by your home). Look for triggers and try to minimize them. If you get a new pet, do the introduction slowly and carefully.

Reinforce your first cat's rights to her favorite places.

You can try counter conditioning, which means providing your cat with a positive action when one of her triggers occurs. So, if the new cat comes into the room, give your original cat a special treat, such as a piece of chicken. The goal is to have her associate the new cat with good things happening.

Trained behaviors can prevent an aggressive interaction. For example, train your cat to go to her place—be that a crate, bed, or perch—and when she gets there, give her a special treat. If you see her looking like she's becoming aggressive, try to intercept and redirect

Get Off on the Right Paw

Inappropriate play with your new kitten or young cat can result in some rough stuff later on. Sharp kitten claws and teeth hurt even when it is play, but they can worsen as the cat grows. These actions can be stopped relatively easily as long as everyone in the household is consistent.

No playing using human body parts as toys. That means no foot games or tapping your hand to attract your kitten. While it might be fun if you have a thick sock or slippers on, a bare foot won't fare well. Don't encourage your kitten to climb up your pant leg (one day you may be wearing shorts!). Immediately gently detach the kitten and put her down on the floor.

When using a toy such as a tug or a feather wand to chase, always keep your hand away from the action. Have toys scattered around so you can distract and redirect your kitten if she comes barreling in. Watch carefully when playing for signs that your kitten may be getting out of hand. Dilated pupils, ears pinned back, and vocalizations are all warning signals that behavior is moving in a direction that may become aggressive. With maturity, most cats adapt to appropriate play.



This kitty is angry, possibly protecting his turf. Back arched, staring, ears flat back, tail out.

her to her safe spot, which she now associates with a special treat.

Psychoactive medications are available from your veterinarian for extreme cases. Your veterinarian may suggest first trying feline pheromone sprays or collars to see if that helps. Consulting a board-certified veterinary behaviorist (go to dacvb.org to find a qualified veterinarian) can help you implement individualized management techniques for your cat.

Living with an aggressive cat is stressful for all concerned, but it is worth determining the causes behind the aggression to try to prevent attacks. Letting your feline friend end up in a shelter without trying to help her is not an acceptable option.

To learn more about feline aggression and how to manage it, visit the Cornell Feline Health Center's website (tinyurl.com/CornellCatAggression). ■

Scared or Angry?

Signs of Aggression

- ▶ arched back with hair standing up
- ▶ ears flattened back or tensely pointed forward
- ▶ hissing or growling
- ▶ staring directly at you
- ▶ stiff body posture
- ▶ tail thrashing, twitching rapidly, or tightly tucked under her body
- ▶ whiskers out wide/pointed forward

Signs of Fear

- ▶ crouching
- ▶ ears flattened sideways or back
- ▶ eyes wide open but not staring
- ▶ hissing or growling
- ▶ head tucked in
- ▶ standing sideways
- ▶ tail curved in toward body
- ▶ whiskers flattened

Nose Care for Your Cat

His sense of smell is important to his health

While cats may lose vision and hearing with age, their sense of smell usually remains intact throughout life. Cats use their sense of smell to find food, identify friends and foes, and to find their way home. It's an important sense for their wellbeing, and sometimes they need a little help when things go wrong.

Cats can develop temporary or permanent loss of smell from respiratory infections and permanent loss from trauma or cancer of the nasal structures. Cats with a permanent loss do adjust over time, but they may require some help to get them back on track.

For the more common temporary loss of smell from a respiratory infection, you can help your cat. A severe respiratory infection often results in a heavy, yellowish nasal discharge. This thick discharge prevents your cat from smelling his food—or anything else for that matter. It can be difficult to get a sick cat to eat!

Start by cleaning the nose. Use soft tissues or moisturized wipes to clean off any discharge and debris. If there are dried-on crusts, use a warm compress—like a warm, wet washcloth—and gently compress the nose briefly first to loosen up the hardened material, then wipe it away. If your cat is a tolerant kitty, you can try to gently suction some debris from her nose with an eye dropper.

Consider a vaporizer. Many cats benefit from spending some time in a steamed-up bathroom or in a room with

What You Can Do

Getting a cat to eat when she doesn't want to can be frustrating. Getting a sick cat to eat when she doesn't want to can be even worse. Odorous foods are the way to go:

- ▶ Smelly fish: It's a major kitty favorite.
- ▶ Use human tuna (mix the juice into her dry food).
- ▶ Add tuna juice to water, but always include a bowl of plain water, too.
- ▶ Warm stuff up. Warming foods slightly can increase their scent, but be careful not to heat foods to the point that they can burn your kitty's mouth. Feel the food yourself to see how warm it is before you actually feed it.

You want those odors to penetrate any internal debris and travel to the olfactory portion of the brain where scents are processed.

a baby vaporizer. The warm, moist air will loosen secretions and help with crusts on the nose. Always watch your cat's breathing, as the increased humidity may be too much for some very ill cats.

Avoid unnecessary odors in your household, which can overwhelm and irritate nasal pathways in cats (and sensitive people). You'll see your cat sneeze, squint up her face, or simply leave the room, sometimes very quickly.

Consider things like smelly household cleaners and scented sprays, oils, potpourri, and candles. Even some laundry detergents can be irritating.

If you must use these items, keep your cat away from the odors. Shut her in a room you're not cleaning, for example, or remove her from the living room if scented candles are being used. ■



Gently wipe the discharge away, using a wet, warm compress if needed.

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Constipation Can Be Challenging

Managing the way to healthy bowel movements

Q I'm a longtime subscriber to *CatWatch* and read with great interest the article on inflammatory bowel disease in the February issue. We have a sweet cat named Billy that has developed some serious constipation problems that come and go. It's heartbreaking to watch Billy try to use his litterbox straining so hard without results. He is under veterinary care and being treated with Miralax and lactulose, which seems to work sometimes, but not always. Do you have any other suggestions regarding what else can be done to treat this?

A Thank you for getting in touch, and I am very sorry to hear that Billy is experiencing this common feline problem. Constipation, characterized by infrequent bowel movements and stools that are difficult to pass, can be challenging to treat in cats, as you know. There are some basic principles of therapy, though, that may be helpful to review.

Cats should defecate at least once daily with formed stools that are deep brownish in color and not too mushy or hard to the touch. Management strategies for cats that develop constipation are generally first focused upon assuring that there is no behavioral component contributing to constipation.

Cats that develop aversions to specific litterboxes or litter, that are denied access

to their litterbox by where it is placed or by territorial conflicts with other cats, or that may become hesitant to defecate due to discomfort caused by arthritis or other health problems may become predisposed to constipation. As stool remains in the colon, water is absorbed out of it, so if a cat is hesitant to defecate for behavioral or other medical reasons, the stool becomes drier, often making it more difficult to pass. Any behavioral or medical issues that may make a cat hesitant to defecate should be addressed first, before attempting other strategies.

Assuring adequate water intake is important, and cats can be prompted to increase their water intake by making sure that plenty of fresh water is always available, by feeding wet food or adding water to dry food, and by providing cat-friendly water fountains, in some cases. Constipated cats that are clinically dehydrated may benefit from rehydration by either intravenous or subcutaneous fluid therapy.

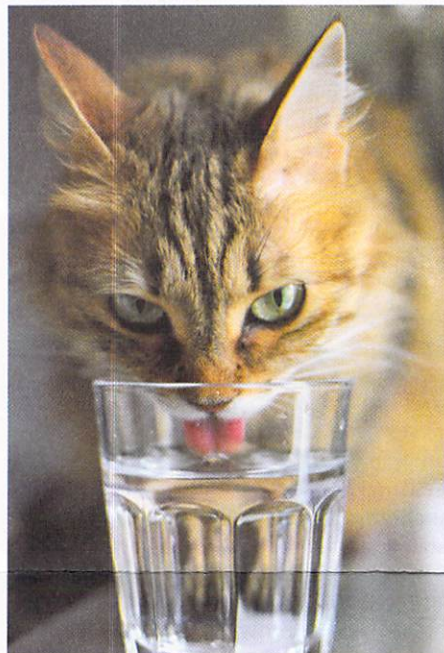
If rehydration and maintenance of normal hydration is not successful, it may become necessary to remove impacted feces from the colon via either enemas, rectal suppositories, or manual removal (the latter usually under sedation or anesthesia). Owners should seek veterinary guidance prior to instituting any of these interventions.

Increasing dietary fiber by adding psyllium, unsliced pureed pumpkin, or beet pulp to the food can be helpful in increasing fecal water content and in promoting intestinal motility.

The addition of cathartics, which increase colonic motility by either drawing water into the gastrointestinal tract or by stimulating its lining, and laxatives, which work by lubricating the stool and increasing its bulk and water content, are often the next steps in managing constipated cats.

If cathartics and laxatives don't work, drugs that directly increase the motility of the colon are reasonable next steps. In many cases, several of these strategies may be used simultaneously, and it is important to work closely with your veterinarian to individualize therapy to your cat's specific needs.

These therapies should begin as early as possible, as chronic constipation can



Sometimes, you just need to be inventive.

lead to situations in which the colon becomes permanently dilated and unable to contract normally (called megacolon), which results in a complete inability to pass stools (obstipation). In extreme cases of megacolon, surgical removal of damaged portions of the colon may become the only treatment option.

I hope that this is helpful, and please continue to work closely with your veterinarian to assure the best management plan for Billy.

Best of luck, and please send us an update when you can. ■

© HAPPENING NOW...

Cat Friendly—The American Association of Feline Practitioners has enacted a policy that elective onychectomy (declawing) procedures will no longer be permitted at designated Cat Friendly Practices (CFPs).

Name Change—The Winn Feline Foundation changed its name to the EveryCat Health Foundation. The organization has contributed over \$7.6 million to fund feline research.

Buttons—WCVB-TV, Boston, says a 7-month-old kitten was saved by a smart Angell Animal Medical Center surgeon. The kitten suffered a badly broken jaw due to a dog attack. The veterinarian sutured in four plastic buttons to hold everything in place while kitty healed. ■



This column is written by Bruce Kornreich, DVM, PhD, DACVIM, Director of the Cornell Feline Health Center and Editor-in-Chief of *CatWatch*. You can write to Dr. Kornreich

at catwatcheditor@cornell.edu or *CatWatch*, 535 Connecticut Ave., Norwalk, CT 06854. We welcome digital photos of your cat to consider for use with your question.

Coming Up ...

- ▶ Heart Murmurs and When to Worry
- ▶ Hyperthyroidism—What's New
- ▶ Get Ready for June: Adopt-a-Cat Month
- ▶ Immediate Response to Feline Pneumonia