



# CatWatch

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



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The owner of six cats asks if she should isolate those with coronavirus.

## IN THE NEWS ...

### Searching for a Simple Test for Two GI Diseases

Two different disorders in cats — inflammatory bowel disease and a cancer of the gastrointestinal tract called alimentary lymphoma — have similar signs, including lack of appetite, weight loss, vomiting and diarrhea.

Only some patients can be helped by trial and error changes in diet, antibiotics and anti-inflammatory medications. Others may undergo intestinal biopsies for diagnosis and treatment. "Even with biopsy samples, it can be difficult to distinguish between IBD and lymphoma in some cats," says the Winn Feline Health Foundation.

In search of a simple test to differentiate between the two diseases without invasive biopsies, the foundation has awarded a grant to evaluate a blood test focusing on a pattern of blood proteins. Pathologist Kurt Zimmerman, DVM, Ph.D., at Virginia-Maryland Regional College of Veterinary Medicine will be the lead investigator. ♦

## They Stalk by Night and Howl, too

*Cats are programmed to be active at dawn and dusk, but you can cleverly and lovingly change their genetic clocks*

Ah, sleep. At the end of a long workday, you look forward to uninterrupted slumber, but your cat has other plans. In two hours, he jars you awake by leaping on the bed — knocking the air out of you. An hour later, he swats a book off your nightstand. And 30 minutes before your alarm sounds, he begins loud, demanding meows.

Frustrated by your feline night stalker? You're not alone. Fast-growing, play-seeking kittens aren't the only felines who disrupt their owners' sleep. Cats who have displayed proper manners at night can suddenly become restless and vocal especially when they become seniors.

**Common Complaint.** "We don't have statistics available, but the issue of cats getting



FieldHaven Feline Center

**Medical and behavioral problems** can also cause nighttime wakefulness.

people up in the middle of the night is quite common," says animal behaviorist Katherine Houpt, VMD, Ph.D., professor emeritus at Cornell University College of Veterinary

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## Why Fewer Cats Have Laser Therapy

*Despite its growing popularity in healing, the treatment is underused because we tend not to recognize their pain*

Over the past decade, veterinarians have dramatically increased their use of laser therapy for wound healing and inflammatory conditions in the elbow, knee and lower back. Unlike surgical lasers that cut and vaporize tissue, their low-level lasers painlessly penetrate below the skin to help in healing deep tissue and joint problems.

While the therapy is also becoming a popular option for treating pain, it's not used as often in cats as in dogs. "One reason is that we don't tend to recognize pain in cats the way we do in dogs," says Joseph

Wakshlag, DVM, Ph.D., ACVN, a board-certified specialist in sports medicine and rehabilitation at Cornell University College of Veterinary Medicine.

**Species' Advantage.** "We see a lot fewer owners seeking laser therapy for conditions like arthritis in cats. Yet in smaller creatures like cats, lasers can more easily penetrate to the appropriate depth and can be quite effective. We have seen one cat respond very well to hock treatment — the cat went from not jumping onto furniture anymore to scaling countertops again."

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# CatWatch

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## SHORT TAKES

### When 'Mousers' Move From Barn to Bedroom

An article in the February issue on  
alternatives to relinquishing pets to shelters  
featured a dashing photo of Rascal, a feral cat  
who was neutered, vaccinated and adopted  
to work as a Rodent Ranger.

The decade-old program, run by  
FieldHaven Feline Center in Lincoln, Calif.,  
promotes the rodent-control capabilities of  
feral cats, says Joy Smith, the center's founder  
and president. A few shelters, especially in  
rural areas, have begun similar efforts.

Most candidates are from municipal  
shelters — feral cats or those with behavior  
problems that make them unadoptable,  
Smith says. "For various reasons, they can't be  
returned to where they came from via TNR  
(trap/neuter/return) to live as a community cat."

Forty-seven rangers were placed last year,  
and Smith expects more once the nonprofit  
center increases the capacity of its 2nd Chance  
Feral Ranch. "Our goal for 2016 is to place 150,"  
she says. The ranch acts as a halfway house  
until adoptive homes are found.

Adopters provide food, water and shelter.  
Given that the program plays to the strengths  
of "mousers" as hunters, it may be a surprise  
to learn that some Rodent Rangers decide  
they prefer the house-cat life, Smith says. "It  
always gives us a giggle when we hear from an  
adopter that their 'great hunter' is now sleeping  
on their bed! Some feral cats don't like humans  
in general, but when that special human comes  
along, they turn from a tiger into a tabby."

Two examples of Smith's success stories:

- ◆ "Bailey and two other kitties were adopted  
by a Nevada rancher to be Rodent Rangers  
in his horse barn. Bailey wasn't so fond of  
the cold tack room and she promptly let  
Dan know." As evidence, he sent the photo  
on this page of Bailey's new home — in  
front of a warm wood stove.
- ◆ "Spike, deemed 'aggressive' by municipal  
animal control, was brought to FieldHaven  
and then adopted into a stable as a Rodent  
Ranger. It wasn't long before Spike made his



FieldHaven Feline Center

**Bailey, an adopted Range Rover** at a Nevada  
ranch, passed on living in a chilly tack room and  
charmed her way onto an indoor spot by the fire.

way into the house, never to go back to the  
barn. And then he became famous as the  
star of a Sacramento Kings TV commercial!"

Smith loves watching the rangers at work  
and play. "It's like observing their wild cousins  
— but in a little cat's body. And every so often  
they trust you enough to let their 'domestic'  
side come through."

### Sleeping With Pets

A small study by the Mayo Clinic Center for  
Sleep Medicine in Scottsdale, Ariz., suggests that  
owners' sleeping with their pets can experience  
positive effects. Replies to a questionnaire from  
150 consecutive patients found that nearly half  
had pets; 41 percent had several.

More than half, 56 percent, allowed their  
pets to sleep in their bed or in the bedroom  
with these results: Twenty percent described  
their pets as disruptive — snoring, wandering  
— while 41 percent said their pets were  
unobtrusive or even beneficial.

Researchers acknowledge that pre-  
existing conditions can affect sleep. Maybe  
pet population can, too. The study didn't say  
if these patients had beneficial or disruptive  
sleep, but consider the possibilities: One  
married 35-year-old man had four Chihuahuas,  
a Basset Hound and a cat. A married 43-year-  
old woman had two dogs and five cats. ♦

# What You Should Know About Oily Coats

*Grooming is off, and the reasons range from nutrition and allergies to medical conditions*

Your cat has always sported a shiny coat, soft to the touch. You marvel at the time he dedicates to grooming. But lately when you pet him, his coat feels greasy and you detect an odor. His grooming clearly is off, and it's a worry.

"The hair coat can tell a lot about the health, lifestyle and nutrition of an animal," says dermatologist William H. Miller, VMD, at Cornell University College of Veterinary Medicine. "In cats, one of the earliest signs that the cat isn't feeling well is decreased grooming."

Medium- to long-haired cats are more likely to develop oily coats than short-haired ones because the coats' length can make it harder for the cat to groom away excessive grease, Dr. Miller says.

**Lack of Flexibility.** Grooming can also be difficult for extremely overweight or arthritic cats. They may have limited flexibility to reach all parts of their body or may be unable or unwilling to use their barbed tongue to evenly distribute the natural oils in their fur. Cats with cognitive dysfunction — the feline equivalent of Alzheimer's in people — may simply forget to groom themselves.

Surprisingly, topical flea and tick preventives can cause oily coats in some cats, especially in the shoulder area. The products contain diffusing agents which can cause excessive greasiness in these cats. Other causes include:

◆ **Hyperthyroidism**, a common disease in middle-aged and older cats. Signs of increased thyroid hormones are a flaky, greasy or matted coat.

◆ **Primary seborrhea**, a rare, inherited skin condition resulting in a dry or greasy hair coat. Himalayans and Exotic Shorthaired breeds are more at risk. Secondary seborrhea is caused by parasites,

nutrient deficiencies or allergies.

◆ **Gastrointestinal disorders.** "Some animals do not process nutrients properly and develop an unthrifty [unhealthy] coat with either flaking or greasiness," says Dr. Miller.

◆ **Allergic reactions** to certain foods or the environment. "Allergic reactions can result in an altered skin ecology that favors a bacterial or yeast overgrowth. The overgrowth of these organisms can alter the normal lipid



William H. Miller, VMD, Cornell

Cats with long hair tend to develop oily coats because the length makes it difficult to groom.

layer of the skin and make the coat feel greasy," Dr. Miller says. The overgrowth of both organisms can result in a pronounced body odor, and cats can become itchy with all of the consequences that itching produces."

## AT-HOME TACTICS

To reduce your cat's chances of developing an oily coat, dermatologist William H. Miller, VMD, at Cornell advises a multi-pronged approach:

- ◆ Brush his coat as often as necessary. In some cases that will be daily.
- ◆ Bathe him with a medicated shampoo recommended by his veterinarian. Be sure to follow the treatment recommendations to avoid causing the skin to become dry, irritated and inflamed.
- ◆ Feed a quality commercial diet that meets his nutritional needs, age, activity level and health condition.
- ◆ Regularly inspect your cat's coat for tangles as well as lumps on his body that could alert you to more serious problems.

A veterinary visit is in order at the first sign of a decline in coat quality. A diagnosis can reduce your cat's discomfort and improve his chances for a quicker recovery. In some cases, his veterinarian may perform a skin biopsy to diagnose the possible underlying medical cause, and if it can't be quickly identified, make a referral to a dermatologist.

Treatment is easy if the cause for the greasiness can be found and corrected quickly. In these cases, the greasiness will disappear spontaneously. "When the cause cannot be found or corrected, the cat's owner will have to take over the grooming role," Dr. Miller says. "Bathing is the best way to remove the greasiness, but many cats fail to see the sense of humor of a bath. Frequent brushing will also work but takes more time to achieve the desired results. If there is a bacterial or yeast overgrowth and medicated shampoos can't be used, the cat will have to be treated with a systemic antibiotic or antifungal." ◆

**STALKING...** (continued from cover)

Medicine. "And there is also the phenomenon of older cats being wakeful in the middle of the night after years of always sleeping through the night."

Even veterinarians have to contend with the issue. "I definitely have had both geriatric dogs and cats who kept me awake at night," says Leni Kaplan, MS, DVM, a lecturer in the Community Practice Service at Cornell.

In general, nocturnal species are most active at night. Cats, however, are crepuscular, meaning that they're awake at twilight. "Cats are not truly nocturnal like many rodents, but feral cats in cities are more active at night when dogs are asleep, enabling them to find food more safely in dumpsters without being stalked by predators," Dr. Houpt says. "All cats seem to be genetically programmed to be more active at dawn and dusk and this even applies to today's indoor cats."

The reasons can also be medical and behavioral. Book an appointment

with your cat's veterinarian for a complete physical exam. "If we do not identify and treat underlying medical causes of disruptive behaviors, we will not be able to fix the behavior," says Dr. Kaplan.

These conditions top the list of physical reasons for nighttime wakefulness:

◆ **Cognitive dysfunction syndrome, (CDS)**, a degenerative brain disease similar to Alzheimer's in people. It causes altered sleep patterns, among other behaviors. (Please see sidebar.)

◆ **Hyperthyroidism**, a common endocrine disorder resulting from the production of excessive thyroid hormone, occurs in middle-aged and older cats. Those affected develop voracious appetites but experience weight loss. They tend to be more active and vocal. "This medical condition causes hypertension [high blood pressure], increased thirst, increased appetite, increased urination and nighttime vocalization," says Dr. Kaplan. "Generally, many cats with this



**Cats with cognitive dysfunction syndrome** and diminished vision may howl at night because they feel lost. The low-tech solution: nightlights.

condition do not sleep well and disrupt their owners' sleep. If the cat does not have access to food overnight, he may bother the owner to be fed."

◆ **Diabetes** typically causes ravenous appetite, weight loss, increased water consumption and urination. As a consequence, cats may awaken in the middle of the night because they're hungry or the water bowl is empty. Urinary tract infections or bladder stones can also trigger cats to awaken their owner by urinating on the bed, Dr. Houpt says.

◆ **Pain due to arthritic joints** can make it hard for cats to find a comfortable posture to sleep. "Pay attention to your cat, and if he is starting to limp during the day, get him examined by your veterinarian," Dr. Houpt says. "He may need pain medication to help him not only move but also to sleep better."

◆ **Infestation of fleas, ticks and other parasites**. "Painful, irritated and itchy skin will keep animals from sleeping, and they may be stressed because they're in pain," Dr. Kaplan says. It warrants a trip to the veterinarian.

◆ **Side effects from certain medicines**. Make a list of those your cat takes, including supplements, and review them with the veterinarian. "Most medications do not disrupt sleep unless an individual animal has an intolerance or sensitivity

## ABOUT THOSE TOE ATTACKS: YOU'RE PREY

If your cat revels in pouncing on your toes while you're sleeping, the experts advise:

- ◆ Stay quiet and still. Moving "prey" is much more interesting, so play possum, says behaviorist Katherine Houpt, VMD, Ph.D., at Cornell.
- ◆ Usher your cat into a closed bedroom or bathroom with food and water bowls, litter box, bedding and toys.
- ◆ Don't yell at or scold your cat. This will garner him more attention and motivate him to escalate the activity.
- ◆ Don't set up "booby traps" at your bedroom door that emit sprays as a deterrent. "A smart cat will learn to step back a foot away from the spray canister and continue to meow," says Dr. Houpt. "Cats are also less forgiving than dogs, and if you are yelling at them, they not want to spend much time with you anymore and you can dampen your friendship connection."

Leni Kaplan, MS, DMV, at Cornell adds: "I'm not a fan of booby trapping or scaring animals to discourage unwanted behaviors. These tactics commonly cause anxiety and fear without really training the animal."

Finally, you can try to change night into day. Shut the bedroom door and keep the lights on in the rest of the house to lure your cat into thinking it's daytime in the middle of the night.

## HOW COGNITIVE DYSFUNCTION IMPACTS SLEEP

Studies show that about 50 percent of cats between 11 and 15 years of age — and more than 80 percent of cats 16 and older — display signs of cognitive dysfunction syndrome (CDS). In addition to vocalizing and being unable to sleep through the night, they may:

- ◆ Forget their litter box's location, wander aimlessly or become lost in the corner of the living room. Those with diminished vision may howl because they feel lost. Nightlights can help them navigate in the dark.
- ◆ Stare blankly into space or walls, and become indifferent to food and water, according to the Cornell Feline Health Center, [www.vet.cornell.edu/fhc](http://www.vet.cornell.edu/fhc).
- ◆ Show less interest in grooming.
- ◆ Fail to recognize family members or other pets.
- ◆ Sleep more in the day, less at night.

No drugs have been approved to specifically treat feline CD, but veterinarians can prescribe some medications, such as selegiline and propentofylline, "off-label," as well as therapeutic diets intended to improve cognitive function.

to the medication," Dr. Kaplan says. "For example, just like in people, some antihistamines, including Benadryl, can cause hyper-excitability and anxiety instead of sedation."

Pets who are hyper-excitabile as a side effect of a medication usually can't settle down. "They will pant, pace, be restless and bother the owner because they are confused and frightened by these side effects," Dr. Kaplan says. However, she cautions

owners not to confuse a medicated cat's suddenly walking around and interacting more with anxiety. He might simply be happy to be feeling better.

**No Early Dinners.** Once medical reasons for your cat's increased nighttime activity have been ruled out, look for clues pointing to a behavioral reason. It would be helpful to record and report specific changes in

your cat, such as heightened nighttime activity, to his veterinarian.

One consideration: Unintentionally, you

may be encouraging wakefulness in your cat, especially if you feed him an early dinner and a meal as soon as you awaken in the morning.

"I often recommend that my clients give their pets a late meal before the owner's bedtime," says Dr. Kaplan. "This accomplishes two things: The pets are less likely to wake their owners due to hunger, and secondly, this late meal helps pets who are prone to vomiting overnight due to hunger and a long duration between feedings known as billous vomiting syndrome."

Equally important is delaying feeding in the morning. You need to re-set his breakfast clock. "Otherwise, you are training him to expect to be fed as soon as you wake up and that can motivate some cats to bother you while you are still in bed," Dr. Houpt says. "You are inadvertently positively reinforcing this unwanted behavior."

Bored cats can unleash their pent-up energy by scratching furniture at night and batting objects off tables and counters. Effective boredom busters include:

- ◆ Clicker training to teach basic cues like sit, come and shake paws.
- ◆ Introducing a puzzle feeder a cat must manipulate to access a treat inside.
- ◆ Staging mini-play sessions to engage his predator skills, such as a wand toy or a laser tag toy. End the one- to 10-minute sessions by giving him a chance to catch "prey" by tossing a paper wad or soft toy mouse.
- ◆ Providing play-alone toys like a ball inside a plastic circular track.

"Cats, just like humans, need exercise and an outlet for energy for both their physical and mental well-being," says Dr. Kaplan. ♦

### A bored cat may re-channel his pent-up energy

at night to scratching furniture and batting objects off tables. Entertain him with a food puzzle that he must manipulate to access a treat inside.



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# LASERS... (continued from cover)

Laser therapy, which has been used on human patients for 50 years, directs an intense beam of light into tissues to help reduce swelling and pain and increase circulation. Early Class III lasers had very low power output, leading to their being called “low level” lasers or “cold lasers.” The effects of both Class III lasers and the more recent, higher-powered Class IV therapeutic lasers are referred to as photobiomodulation, intended to denote the changes caused by the lasers at a cellular level.

Ten years ago, only a few dozen veterinarians used therapy lasers, says Carl H. Bennett, director of veterinary marketing for Companion Therapy Lasers at Lite-Cure LLC. “Many of those earlier lasers were effective only for treating minor or superficial wounds in a reasonable amount of treatment time,” he says. “Shortly thereafter, the FDA approved higher-powered Class IV lasers for human medical applications. These lasers allowed for efficiently delivering effective doses of laser energy (photons) to deeper tissues like muscles and joints. This development was the catalyst for the rapid growth of laser use in veterinary medicine.”

Since 2007, the adoption of therapy lasers has grown steadily in veterinary

medicine. To date, Bennett says about 5,000 clinics and veterinary colleges around the world use his company’s veterinary lasers. Of those 5,000 laser users, about half of them have acquired their lasers in the last three years alone.

Dr. Wakshlag says that the availability of Class IV lasers, versus the Class III lasers, has drastically shortened treatment time from about half an hour or more to five minutes or less. “That’s definitely contributed to the rise in popularity of laser therapy, as the cost-benefit ratios are now a lot better,” he says.

**Need for Research.** Despite the broader adoption of laser therapy, many veterinarians acknowledge that more research into the most effective use of such therapy in animals is needed. Surgeon James A. Flanders, DVM, ACVS, associate professor at Cornell, says that there are very few controlled studies that look at laser therapy effects on veterinary patients. Practically none exists specifically in cats. “Almost all recent reports are limited to

a single case or to testimonials,” he says. “Valid studies that involve a large number of animals with investigators who are blinded to the treatment type are lacking.” [Investigators in a blinded clinical trial do not know the drug or treatments assigned to participants.]

As exceptions, Dr. Flanders notes two studies with differing conclusions. A study published in 2014 in *Veterinary Surgery* looked at the effect of low-power laser on wound healing in dogs. “The investigators compared a low dose of laser on wound healing with no treatment other than bandaging to identical wounds created on the skin and they found no difference in healing,” Dr. Flanders says. However, he points out that a 1997 study on teat lacerations in dairy cows showed enhanced healing with laser treatment compared to no treatment.

At the University of Florida, a study applying Class III laser therapy to 34 dogs with intervertebral disc disease found that, after spinal cord injury and surgery, dogs who received laser therapy walked sooner, avoided medical complications and were discharged sooner.

Aside from a handful of studies like those, Dr. Wakshlag says that, until



**Amanda Kennedy, in her third year studying to be a veterinarian at Cornell, applies a laser to a patient with lumbosacral pain.**

## THE PAIN-FREE TREATMENTS TAKE ONLY MINUTES

In general, laser therapy treatment is safe, painless and brief. The laser light is delivered to the affected area through a non-invasive hand piece. The fur does not need to be clipped. Eye protection is worn by the laser operator and anyone near the laser probe. The eyes of the animal are directed away from the treatment area or covered, as the laser could harm the retina of an eye if shined directly into it.

The clinician moves the hand piece steadily over the area of treatment to avoid singeing the fur, particularly on dark-colored coats. During treatment, pets feel a gentle warmth, and many will increasingly relax during — and possibly even seem to enjoy — the procedure.

Each pet is different, and results can vary widely. Owners might see a change in their pets within the first treatment or two. However, for more severe conditions, a series of treatments might be necessary before results become apparent. They can include better mobility for joint conditions, drying and healing of dermatological wounds, quicker healing for wounds and incisions, and greater comfort in a pet.

recently, veterinarians have had to rely heavily on medical literature based on human laser therapy applications. Translating the applications to veterinary patients presented challenges, including the varying size of the patients and the need for the lasers to penetrate a layer of fur.

Veterinarians seeing positive results with laser therapy are now collecting good data related to the procedure, as are manufacturers of laser units, Dr. Wakshlag says. "We should have a lot more information regarding laser therapy within the veterinary community in the next five years."

**Refined Treatment.** Already, the information being reported is helping to refine treatment. "The response to treatment in a cat versus a Labrador can be very different," Dr. Wakshlag says. "We've realized we need to think about the specific doses we use much more critically. Now we have access to specific

algorithms based on a pet's fur color and other factors."

The veterinary community should be evaluating laser therapy for greater use in cats, but it can be difficult in measuring response to treatment of common diseases like arthritis because the only measures are subjective owner satisfaction or activity scores provided by the owner, Dr. Wakshlag says. Treatment on cats at Cornell tends to be focused on arthritis, particularly in the knees and elbows.

Laser therapy can be used for a wide range of conditions (see sidebar) and as an adjunct therapy or in pets who have exhausted traditional medication options. "We offer it as a possibility that might be effective in their pet, recommend a typical dosing regimen and tell the owners to watch their pets closely to gauge effectiveness," he says. "Currently, we are looking at a cat who has lumbosacral pain and has stopped grooming himself. Our only measure is hind-end

## POSSIBLE CONDITIONS THE THERAPY CAN TREAT

Cats who suffer from any combination of pain, inflammation or slow-healing wounds may benefit from laser therapy. Commonly treated ailments include:

- ◆ Ulcerations and open wounds
- ◆ Muscle, ligament and tendon injuries
- ◆ Sprains and strains
- ◆ Pododermatitis (inflammation of the footpads)
- ◆ Back pain
- ◆ Neuromuscular disease
- ◆ Arthritis
- ◆ Degenerative disc or joint disease
- ◆ Hip dysplasia
- ◆ Inflamed ears
- ◆ Post-surgical trauma

## RECOGNIZING PAIN IN CATS

It can be difficult to determine if cats are in pain, one of the reasons that laser therapy is underused in this species. The following could be signs that your cat is in pain — arthritic or otherwise:

- ◆ Lack of grooming
- ◆ Hiding or isolation
- ◆ Sleeping a lot or in only one position
- ◆ Lack of interest in food and water
- ◆ Growling or hissing when touched
- ◆ Abnormal body positions
- ◆ Restlessness
- ◆ Change in food preferences, sleeping spots or litter box habits
- ◆ General irritability
- ◆ Reluctance to jump to favorite spots
- ◆ Reduced social interactions with owners or other animals



**Hiding, sleeping a lot** and reluctance to jump are among the signs of pain.

grooming and that did not get any better, so we are assuming the laser was not making him more comfortable."

About two-thirds of the veterinary patients at Cornell who undergo laser therapy demonstrate noticeably positive results. The best responses are seen in patients who undergo therapy two to three times a week for three consecutive weeks. Each session costs about \$35. If signs of pain recur, Dr. Wakshlag recommends the laser therapy regimen be repeated.

Looking to the future, he says, "It's our hope that more information becomes available regarding effective doses of laser for treating all kinds of musculoskeletal and other maladies, particularly since pain management in cats is so difficult due to their sensitivity to nonsteroidal anti-inflammatories. Another tool is good to have, and we like what we see on the limited cats we are treating." ♦



Elizabeth

Elizabeth is thankful for the assistance of **Bruce G. Kornreich, DVM, Ph.D., DACVIM**, Associate Director of the Cornell Feline Health Center, in providing the answer on this page.

**PLEASE  
SHARE YOUR  
QUESTIONS**

We welcome questions on health, medicine and behavior, but regret that we cannot comment on prior diagnoses and specific products. Please write *CatWatch* Editor, 535 Connecticut Ave., Norwalk, CT 06854-1713 or email [catwatcheditor@cornell.edu](mailto:catwatcheditor@cornell.edu).

**COMING UP ...**

❖  
**SHY CATS**

❖  
**ARRHYTHMIAS**

❖  
**STEM CELL  
THERAPY**

❖  
**IS IT REALLY  
DEMENTIA?**  
❖

## Should She Isolate the Cats With Coronavirus From the Others?

**Q** *I have six adult cats and I am keeping them all separated from one another for fear of coronavirus infection and the development of feline infectious peritonitis (FIP). I have had multiple cats tested for coronavirus, and some are positive. Should I be keeping those who have tested positive isolated from the others, and how should I manage this group of cats?*

**A** First, thank you for all that you do on behalf of these kitties. It is wonderful that you have opened your home to them, and they are fortunate to have found such a loving mother. Perhaps a review of our understanding of FIP would be a good place to start in answering your question.

FIP arises by mutation of feline coronavirus (FeCoV), a commonly encountered virus that is normally very well tolerated by cats it infects. In most cases, a mild gastroenteritis may be seen, but there is otherwise no significant negative effect on a cat's health after he has been infected. FeCoV is passed in the feces of infected cats and is passed from one cat to another by ingestion of fecal material from an infected cat.

This virus is highly prevalent in feline populations, with between 60 and 80 percent of cats showing evidence of infection, and infection rates as high as 90 percent in cats housed in high numbers and in close proximity, such as in shelters and multi-cat households.

FIP develops when FeCoV undergoes a mutation that alters the parts of a cat's body that the virus attacks after infection. This mutation is believed to occur in approximately 5 percent of cats infected with FeCoV. Depending upon where the virus ends up (and upon a number of other factors), FIP can result in one of two general disease states. One, called the "wet form" of the disease, is characterized by the accumulation of fluid in the abdomen and/or chest cavity. In cats with the "dry form" of FIP, no evidence of fluid accumulation is seen. Rather, these cats most commonly

develop neurologic and ocular (eye) problems. In both forms of FIP, affected cats usually develop a fever, lethargy, anorexia and weight loss.

Unfortunately, the prognosis for cats with FIP is grave, and there is no currently available therapy that has proven effective in curing cats with either form of the disease. There is also no easy way to definitively diagnose FIP without obtaining biopsies and/or fluid for special testing. The available tests cannot easily distinguish between the relatively benign FeCoV and the almost routinely fatal FIP form.

It is important to understand that the majority of cats who have been infected by FeCoV will never develop FIP. In your case, for example, it may be that all of your cats have been infected with FeCoV. In fact, this is likely if even one of them was initially infected. Currently available antemortem tests (those run before the death of a cat) cannot easily distinguish between the relatively benign FeCoV and the FIP form of the virus.

These facts form the basis for the recommendations not to routinely test the other cats in a household in which a cat has succumbed to FIP for coronavirus (they will almost certainly be positive, but the majority will never develop FIP) and not to isolate cats with FIP from their feline housemates. Again, by the time one cat develops FIP, is it likely that they have all been infected with coronavirus.

There are some things that you can do that may minimize the likelihood of FIP in your house. Since stress is believed to predispose to the development of FIP, minimizing stress by keeping the number of cats per room at three or less may impart some protection. Also, being fastidious about keeping litter boxes clean, having adequate numbers of litter boxes (the number of cats plus one) and making sure that food and water bowls are kept away from litter boxes may decrease the likelihood of FIP developing in multiple cat households.

I hope that this is helpful, and please visit the following Cornell Feline Health Center website for more information on FIP: [www.vet.cornell.edu/fhc/Health\\_Information/FIP2.cfm](http://www.vet.cornell.edu/fhc/Health_Information/FIP2.cfm).

—Sincerely, Elizabeth ❖

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