

THIS JUST IN

## Pandemic Pounds

Veterinarians see increase

Nearly 75% of veterinarians believe the pandemic affected pets when it came to weight, according to Hill's Pet Nutrition. You might think pet parents at home would mean more exercise, and maybe it does, but it also apparently means more treats. "With people spending more time at home over the last nine months, treats are often given as a form of love, with more than half (53%) of pet parents saying they've been giving their pets treats for no reason," according to Hill's.

While 73% of owners feel they can tell if their pets have gained weight or are overweight, veterinarians feel differently. The survey reported that veterinarians only feel that about 12% of pet owners are accurate about their pets' weight.

Is there hope for pudgy pets? Fewer treats, no table scraps, and more exercise could help with weight control. Close to half the owners surveyed said they could, and would, work on their pets' diets.

Planning more exercise in the form of cat play and walking dogs is important. Monitoring food intake, including treats, can

also help. A third of the owners were even willing to cut back on social media screen time to help their pets return to a healthy weight. ■



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## How to Get Scratch Relief

Cats must scratch, but we're not always keen about it

Scratching things is normal. Some cats scratch during a wake-up stretch. Others scratch before heading off into a playful set of zoomies. Scratching is natural. It's important for keeping their nails healthy and removing old sheaths. It also lets a cat spread her scent via the scent glands on her paws.

Unfortunately, cats are often relinquished to shelters because of destructive scratching. When left to pick their own surfaces to relieve that urge to scratch, cats may choose furniture, carpet, or walls. Understandably, homeowners and landlords don't appreciate those choices.

While prevention starting at a young age is key (see sidebar), all is not lost if your cat is already an established scratcher. "Put a proper scratching post in the proper place, near the scene of destructive scratching. Try to match the type of surface the cat has chosen. Be sure to provide horizontal as well as vertical scratching surfaces," says Katherine A. Houpt, VMD, PhD DACVB James Law Professor Emeritus, section of behavior medicine, Cornell University College of Veterinary Medicine.

Regular nail trimming will do wonders to temper her urge, as old

nail sheaths won't need to be removed. Trimmed nails also decrease the damage done if your cat does scratch. The ideal length of time between nail trims can vary between two and four weeks, so you may need to watch to see how often your cat needs trimming. It's easy to forget, so make a note on your calendar for when she's due for another trim.

**You can deter scratching by:**

- ▶ Using a good scratcher placed in the right spot
- ▶ Regularly trimming cat nails
- ▶ Applying furniture guards

**Methods with a lower success rate:**

- ▶ Denying access to preferred scratching spots
- ▶ Using water pistols
- ▶ Applying nail caps

If your cat is new to nail trimming, start slowly. When your cat is relaxed in your lap, push gently on a pad so the nail extends. Use a cat nail trimmer or human toenail cutter to cut off the "hook" of the nail, then reward your cat with a treat and praise. If she is calm, do another nail.

Gradually build up to an entire foot at a time. Some cats will even handle getting all four feet done at once.

**Deter the Destruction**

Make potentially attractive but inappropriate choices less appealing. Bitter chew sprays may deter some cats. "Booby trapping" an area with stacked plastic cups or double-sided tape can provide good deterrence, as can some commercially available motion-activated products that emit a harmless puff of air when a cat approaches them.

Some people have luck

(continues on page 7)



Scratching is normal and natural for a cat. It's important to work with them, not against them, in directing the desire to scratch.

## How Your Cat Knows Where You Are in the House

*Cats listen and form a “mental map” to determine your location*

In a study from Japan, researchers looked at whether cats can track the location of their owners via sounds and a mental map of their last location. Researchers noted that cats appeared to be surprised or startled when the owner’s voice suddenly came from a different location. A stranger’s voice moving did not evoke much of a response, suggesting that the owner’s voice had value to the cats.

The cats’ surprise responses were expressed by a combination of behaviors including moving ears, head direction, and looking back, which the researchers believe is valid for detecting surprise. The cats could not see their owners, so they had to be basing their responses totally on auditory input. The cats easily discriminated between their owner and a stranger by voice alone.

After testing with the owner’s voice versus a stranger’s voice, the experiment was repeated with another cat meowing as the auditory test, and then a nonsocial sound. Cats were not particularly responsive to changes with the “meows” of other cats. Cats tend to only use that vocalization when interacting with people, so perhaps the cats simply didn’t care when that sound moved unexpectedly. Cats were also nonresponsive to the sound of a dog toy. The results of this study suggest that cats do track the whereabouts of their owners. ■

*Takagi S, et al (2021) Socio-spatial cognition in cats: Mentally mapping owner’s location from voice. PLoS ONE 16(11): e0257611. <https://doi.org/10.1371/journal.pone.0257611>*

## The Usefulness of the Gaze Alternation Factor

*Let your cats know you understand what they want*

One of the basic ways pets communicate with people is “gaze alternation,” which is when the cat looks at her person and then pointedly looks at what she wants but is unable to get on her own. In this interaction, the cat must approach the person, get the person’s attention by looking at them, then go to or look at the desired object.

A study published in *Animal Cognition* looked at how cats might handle their ability, or inability at times, to reach a treat and whether they use gaze alternation. In the study, 56 cats were taken one at a time with a familiar person into a room with a treat container. The cat got to see the treat being put in the container and then was carried about six feet away from it. One group of cats had an accessible container so they could get the treat themselves. The other group had a container with a top on it. Both groups interacted with attentive or nonattentive people.

Not surprisingly, the cats used more gaze alternation when they needed help getting the treat. However, the cats did interact socially even when they could get the treats themselves. “Cats may have been motivated to exhibit showing/attention-seeking behavior after they successfully retrieved the treat to get more,” says the study.

Cats appeared to be reading the attitude and attentiveness of the caregiver people as well. They approached the treat container more frequently, took their first gaze at the caregiver sooner, and gazed at her more often when she was attentive. Male cats were more likely to go through the whole behavior sequence to figure out how to get the treats. Younger cats tended to have more interactions with the people.

Overall, when the cat could not get the treat on his own, he increased the number of gaze alternations. Instead of interacting with the caregiver or going to the inaccessible treat container, the cats concentrated their efforts on getting the attention of the person and getting the person to help them to their goal. If the person was paying attention to them, the cats looked at them quickly and frequently, and went to the treat container. The cats appeared to understand that they had to interact with and get the attention of the human to get the treats. In addition, they read the people very well, recognizing who was ignoring them and who might be persuaded to help.

This study suggests that it would behoove you to pay attention to your cat and interact with her in a very conscious way, responding to her requests. The more effort you put into your relationship with your cat, the stronger your bond will be. ■

*Zhang, L., et al. Feline communication strategies when presented with an unsolvable task: the attentional state of the person matters. Anim Cogn 24, 1109–1119 (2021). <https://doi.org/10.1007/s10071-021-01503-6>*

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# When Can Kitty Leave Mom?

*Ideally, at 12 weeks, but it doesn't always happen*

**W**e all know that face. The tiny, round kitten face with bright eyes and a ring of fluff beneath the ears. Young kittens are adorable! But taking that tiny kitten home too early could mean lifelong consequences.

Kittens depend on their mothers for food and care during the first month of their lives, but they also depend on their mothers and littermates for an education in feline citizenship. Queens and littermates teach kittens how to be a cat, from playing nicely to burying their urine and feces. This education can continue for up to 16 weeks.

## Nursing

Kittens are dependent on their mothers for the first four weeks or so of life. The first milk that a queen produces is called colostrum, which is rich in nutrients and antibodies that will help to protect the newborn kittens from illness.

At around 4 weeks of age, kittens will start to experiment with solid food. By 8 weeks of age, most kittens are eating primarily solid food, but they will often continue nursing until 12 to 16 weeks of age, depending on the queen's tolerance.

## Early Education

Kittens do some classic feline behaviors naturally, but others are learned through observation. And some things may take a little of both. Some of the things that all kittens learn early in life include:

- ▶ Burying urine and feces
- ▶ Common threats and danger signs
- ▶ Feline body language and communication
- ▶ Grooming
- ▶ Hunting behaviors like stalking and pouncing
- ▶ Proper play (not too rough)

Watching kittens play is mesmerizing. They are incredibly flexible, athletic, and enthusiastic. But if you look closely, you will see that these rough-and-tumble games aren't just play.

If one kitten gets too rough, the sibling will likely cry out or retaliate. The mother cat will do the same, swatting or hissing at a kitten who has gotten out of hand. These interactions help the kittens to learn how to control their bodies and moderate their actions so



*A kitten needs her mom to teach her about life.*

that they can get along with others in a group (after all, a strange cat will be a lot less tolerant of playful bites than mom!).

Kittens also practice hunting moves on each other. While these behaviors aren't exactly necessary in our pampered house pets, they are still quintessentially cat traits. Stalking, pouncing, and rolling are instinctive behaviors, and practicing them can be very rewarding for our felines at all ages.

And during this whole time, the kittens will be watching how their mother reacts to different things in their environment. If the queen responds fearfully to a sound or object (or to humans), the kittens will learn to fear those same things. And if the queen is confident around something new,

the kittens will follow her lead and investigate bravely as well.

## Aggression and Fearfulness

The time spent with mom and siblings also plays a role in your kitten's personality for the rest of his life. A 2017 study published in *Scientific Reports* looked at the age that kittens were weaned and separated from their mothers and how they behaved as adults.

Kittens weaned before 8 weeks of age were found to be more likely to become aggressive. Kittens weaned after 14 weeks of age, on the other hand, were less likely to show aggression toward strangers and less likely to engage in stereotypic behaviors (also called "stimming" in people) such as excessive grooming.

What exactly does this mean? Staying with mom a few extra weeks can help kittens to grow up to be calm, confident, friendly cats.

## Best Time to Take a Kitten Home

In a best-case scenario, kittens should remain with their mothers for the first 12 to 16 weeks of their lives. This is largely for the social benefits of being with their mother and littermates. We can provide nutrients and food, but we can't teach kittens the fine details of feline communication and manners.

For feral kittens, however, 8 weeks old is the ideal time to separate them. At this point, they can survive on their own and eat solid food, but they need the time to be socialized with humans so they don't learn to fear them from their mother. ■

## But My Kitten Was Weaned Early

Just like people, cats are individuals. Not every kitten who is weaned early is going to turn into a vicious attack cat, and not every kitten who stays with its mother until 16 weeks of age is going to be a cuddly marshmallow. But you can increase the odds of kittens growing up to be well-balanced cats if they stay with their mother for 12 to 16 weeks, so when this is possible, it is highly encouraged.



Unfortunately, this is not always possible. Sometimes kittens become separated from their mothers, and queens can be killed by disease, predators, or getting hit by a car.

For these foundlings, dedicated care (around-the-clock for kittens under 4 weeks old) can help to provide some of the nurturing that they are missing out on. Raising orphaned kittens is a lot of work, but it can also be rewarding if you have a good mentor and willingness to provide the love and support the kittens need.

# Monitoring Your Cat's Skin

*Dandruff and abnormal shedding can indicate an issue*

**Y**ou've probably seen the slogan "Cat hair, don't care!" on t-shirts and coffee mugs. And while it sounds cute, sometimes cat hair is, well, everywhere.

The presence of dandruff or abnormal shedding patterns is a signal that something isn't quite right with your cat's skin and coat. Causes range from simple and easy to fix, to more severe illnesses and conditions.

The good news is that one of the primary ways to support the health of your cat's skin and coat is through her food. "In my opinion, a healthy cat eating a good quality food needs no supplements because the food has all the ingredients in the correct proportions," says William Miller, VMD, DACVD, Professor Emeritus of Medicine, section of dermatology at the Cornell University College of Veterinary Medicine.

## Normal Shedding

"Normal shedding is a whole-body event not restricted to one small area or a region of the body," says Dr. Miller. "Animals shed year-round with typically two heavy periods in spring and fall."

When your cat sheds, old hairs are falling out to be replaced by new ones. This is a constant process, which is why you will usually get some hairs whenever you pet your cat. As the seasons change, the shedding cycle can accelerate to accommodate building up a thick winter coat or thinning the coat down for summer. These heavy shedding periods typically last a couple weeks, and then your cat's shedding will slow down again.

For normal shedding, your cat's coat will still appear shiny and full. There should not be bald or thin patches.

Sometimes during a heavy shedding

## Stress and Shedding

A cat who is stressed or afraid will often shed more heavily. While the shedding may seem excessive, it is a normal expression of stress and will usually resolve once your cat is back home and relaxed. This heavy shedding can be accompanied by mild dandruff that will also resolve once your cat is comfortable again.



*You may need to experiment, but with the right tool, your cat may enjoy grooming.*

period, your cat may have tufts of loose undercoat that can be easily plucked. "Pluckables" are not a concern unless plucking leaves a bald spot or they become an issue that doesn't go away.

In longhaired cats, mats and tangles may prevent dead hair from falling out normally. Grooming with a brush or comb can help to catch any knots early and keep your cat looking her best.

## Normal Skin Cycle

As well as shedding hair, your cat also sheds skin cells every day. As new skin cells are produced, old dead ones fall off. "This shedding usually is invisible because the sloughed cells are so small," says Dr. Miller. This normal skin shedding is also referred to as dander.

Dandruff, on the other hand, is when an abnormality in the skin causes cells to flake off in sheets that are visible to the naked eye. It is typically light in color and might look like snowflakes. "If the skin is diseased, it can produce more cells than normal and those aren't shed normally, hence dandruff," says Dr. Miller.

Low humidity can cause dandruff as well. If your home is very dry and your cat's skin otherwise appears healthy, it is not a cause for concern.

## When to Seek Help

Dr. Miller advises scheduling an appointment with your cat's veterinarian if her shedding is "excessive, prolonged, or unusual for the cat." Two indications that shedding is not normal are the presence of bald patches and/or dandruff.

Hair that is coming off in clumps

that leave bald or visibly thin areas in the coat is not normal. This can be caused by parasites, such as fleas or ringworm, or other skin disorders.

An unkempt coat is also a sign that something isn't quite right. "If the apparent normal shedding leaves the cat with a horrible coat, then it's not normal shedding but an indication of internal or external disease," says Dr. Miller.

An abnormal coat might appear greasy or dull, or sport flakes of dandruff. Dandruff can sometimes occur along with a seasonal shed, but if it persists, something is up.

Skin that is red, itchy, or covered in sores is a problem, but even bald patches that reveal normal-looking skin should be checked out.

## Causes of Dandruff and Hair Loss

Causes of dandruff and abnormal hair loss include:

- ▶ Allergies
- ▶ Cutaneous (on the skin) lymphoma
- ▶ Excessive grooming
- ▶ Fleas
- ▶ Low humidity
- ▶ Mange
- ▶ Nutrient imbalances
- ▶ Obesity (prevents normal grooming)
- ▶ Ringworm

## What You Can Do

Make sure your cat is eating a complete and balanced diet. As Dr. Miller stated, a good cat food contains all the nutrients that a healthy cat needs. If your cat is eating a low-fat diet, a fatty acid supplement may help to boost coat and skin health if the coat seems a bit drab. Cats with skin or immune system disorders may also benefit from supplements.

Brush or comb her hair, especially during heavy shedding cycles. Some light grooming with a brush or comb can help remove dead hair so that it doesn't all end up on your clothes, furniture, or in a hairball. Brushing will also help to encourage normal skin cell shedding and prevent or limit dandruff.

Use a humidifier during the winter to help prevent the air from getting too dry and drying out your cat's skin.

If you need to bathe your cat, always choose a shampoo formulated for cats for both safety and proper pH for feline skin.

Consult with your veterinarian. If something doesn't feel right, consult with your veterinarian to make sure that your cat's skin and coat are healthy. ■

# Watch for Dehydration

*With that comes the concern for serious consequences*

**W**ater is one of the most important components of your cat's diet. Your cat gains water by drinking, eating, and from metabolic water (produced by her body, which is 65% water). Cats lose water via urine, stool, and evaporation through their respiratory system. They can also lose excess water if experience vomiting or diarrhea.

Most cats need to consume about 4 ounces of water per 5 pounds of lean body weight per day. This means the average 10-pound cat should drink about 1 cup of water per day.

"When it comes to dehydration problems, we typically think of the LUTS (lower urinary tract symptoms) or CKD (chronic kidney disease) cat, and the constipated cat, but I would pose that all cats, even healthy cats, can likely benefit from drinking more," said board-certified veterinary nutritionist and director of Veterinary Technical Communication at Purina Jason Gagné, DVM, DACVN (Cornell 2009) during a presentation at a recent American Association of Feline Practitioners meeting.

Dr. Gagné suggests that increasing the average cat's daily water intake by about 50% would likely be beneficial.

Unfortunately, this can be a challenging goal, as cats' overall thirst and drive to drink is less than that of dogs (and humans).

## Promising Supplement

Canned cat foods contain up to 75% water, while dry foods usually contain 10% or less water, so feeding canned food may well be worth the added expense and effort. This is even more important for cats with health conditions such

as chronic kidney disease, diabetes, uroliths (bladder stones), or constipation. Encouraging fluid intake is part of the treatment for these problems, but it's not always easy to find enticing methods to increase water intake.

Dr. Gagne and Purina have worked on a supplement to encourage feline drinking. Hydra Care, from Purina Pro Plan Veterinary Supplements, is a nutrient-enriched water supplement aimed at encouraging cats to drink more through the use of flavor additives.

Hydra Care also uses organic osmolytes to help ensure that the water your cat does consume is efficiently absorbed and retained in cells. In research performed thus far, Dr. Gagne found that cats consumed about 50% more water each day with Hydra Care compared to water alone.

The researchers found that, when the supplement was given every day, cats had more dilute urine, which means it had more water in it. This higher urinary water content may help prevent the formation of urinary crystals and stones. It is unknown whether the potential benefit would carry over when using the supplement less frequently.

An additional study provided healthy cats undergoing surgical procedures with access to Hydra-care enriched water, regular water, or both for a day or two prior to surgery. A subset of cats who just got plain water received intravenous (IV) fluids during their procedures. The study showed that the cats who had the option to drink the enriched water had hydrated themselves well enough to equal the benefit of IV fluids. While Hydra Care is available without a prescription, it's wise to discuss its use for your cat with your veterinarian.

## Homework

How can you keep your cat hydrated?

## Signs of Dehydration

- ▶ Dry, sticky gums
- ▶ Tenting of the skin (that is, not snapping back into place when it is gently lifted). Be aware that some healthy geriatric cats may demonstrate this sign
- ▶ Decreased activity
- ▶ Decreased urination
- ▶ Constipation
- ▶ Lack of appetite

Most cat owners know many tricks to get their cats to drink. A dripping faucet or commercial cat fountain may help. Other cats seem to get most of their water from licking a wet bathtub or sink. Finicky cats may want their water bowl in a certain location or will only drink from a certain type of water bowl.

Be sure your cat always has fresh, clean water. That may mean emptying and refilling the water bowl twice a day to prevent any dust or staleness.

Try different types, materials, and sizes of bowls to see which ones your cat prefers. Place the water bowl in a good location (not near the litterbox). It should be easily accessible. You may need multiple bowls if you have more than one cat. Studies suggest that some cats will drink more if their food and water bowls are side by side.

If your cat is a diehard "it's dry food or nothing" feline, you can try adding some water to her kibble. You can also discuss with your veterinarian whether to add a nutrient-enriched supplement to your cat's drinking choices before trying this option. ■

## Excessive Thirst

If you notice your cat drinking frequently or unusually draining her water bowl, she may be showing signs of diabetes, kidney failure, or hyperthyroidism, among other potential diseases.

If so, a visit to the veterinary clinic is in order to get a diagnosis and begin treatment and management.



*Cats are going to choose whatever container of water best suits their tastes at the moment.*

# Pancreatitis Is a Real Threat

*This painful condition is more common in cats than previously thought*

**S**uddenly your cat doesn't seem quite right. He's lost his typically robust appetite, he seems lethargic, and worse, he's vomiting. You also recall that, over time, he seems to have been losing weight. These subtle signs may add up to a difficult-to-diagnose condition called pancreatitis. Prompt veterinary attention is called for.

Why is a pancreatitis diagnosis so tricky? It begins with the often vague and non-specific symptoms that cats with pancreatitis usually demonstrate, combined with their notorious ability to hide low-grade symptoms of disease. These factors, combined with the well-known difficulty in identifying pain in cats, can make it seem like an illness has come on all of a sudden, when in reality the problem may have been smoldering for months.

While diagnostic advances, including currently available feline-specific pancreatitis tests and wider access to diagnostic ultrasound, have dramatically improved our ability to accurately diagnose pancreatitis in cats, a definitive diagnosis can still be challenging.

A 2021 consensus statement published by the American College of Veterinary Internal Medicine raised concerns about this horrible disease. The experts cited a study that showed

66.1% of 115 cats undergoing necropsy at the University of California Davis had evidence of pancreatitis, and 45% of apparently healthy cats in the study had pancreatic lesions.

## Pancreatitis Causes

Most often, the origin of pancreatitis is not known, although there are a few things we know are associated with pancreatitis in cats. These include trauma to the abdomen, anesthetic complications, certain medications (like chemotherapy), hypercalcemia (excessive calcium in the bloodstream), and a couple of infectious agents including toxoplasmosis and feline infectious peritonitis (FIP). An immune-mediated cause has been suggested and is currently under investigation.

Interestingly, there are two things we know do not predispose cats to pancreatitis: obesity and high fat diets, which are common causes of pancreatitis in dogs and humans.

Further, pancreatitis in cats is frequently found in conjunction with inflammatory bowel disease and cholangiohepatitis (inflammation of the bile ducts, gallbladder, and surrounding liver tissue), so much so that this situation has earned itself the name "feline triaditis," although no definitive

## What You Should Know

Pancreatitis in cats is a serious problem because:

- 1 In most cases, its cause is unknown.
- 2 There is no targeted, definitive treatment for it. Treatment, while important, merely addresses symptoms.
- 3 It is likely much more prevalent than previously suspected.
- 4 It can lead to chronic, irreversible damage to the pancreas, perhaps predisposing to other diseases, including diabetes and exocrine pancreatic insufficiency.
- 5 It is a disease in need of more research and veterinary awareness.

cause/effect relationship between these three entities has been established.

## Symptoms

Signs of pancreatitis may be subtle, and they are usually non-specific. The most common signs are lethargy, lack of appetite, and vomiting. Weight loss happens over time.

## Diagnosis

A diagnosis is harder to come by without a biopsy, but we're not necessarily going to do that on every cat.

Diagnosis is usually made using a combination of symptoms, results of bloodwork (including the very useful feline-specific pancreatic lipase test), and abdominal ultrasound findings. In some cases, obtaining a small sample of the pancreas for microscopic analysis via a small needle that is passed through the abdominal wall (called a fine needle aspirate) can be helpful.

## Treatment

While specific treatment focused on addressing the cause of a disease is preferable, this is most commonly not possible with feline pancreatitis, as the cause of this condition is largely unknown. In most cases, a veterinarian's only recourse is to treat symptoms and be generally supportive.

The goals of treatment are pain management, prevention of dehydration,



*Subtle symptoms can make pancreatitis difficult to diagnose.*

Kerenski/Worms & Kittens

protection of the lining of the stomach, normalization of blood electrolytes, alleviating nausea and vomiting, and getting affected cats to eat as soon as possible.

The reasons for pain management in cats with pancreatitis are obvious. Pain delays healing and increases both physiological and emotional stress. The most common pain medications prescribed for pancreatitis in cats are the opioids buprenorphine and fentanyl. Gabapentin, an increasingly popular neuropathic pain reliever, can be added if additional pain relief is needed.

Dehydration can be addressed and prevented with intravenous fluid therapy, and the composition of the fluids administered can be tailored to address the metabolic derangements that cats with pancreatitis can experience.

The go-to drug for vomiting in both dogs and cats is usually maropitant (Cerenia, which is manufactured by Zoetis). It works in the vomiting-trigger zone in the brain and is fast-acting, safe, and commonly effective.

In severe cases, another anti-emetic drug called ondansetron can be added to maropitant therapy. Various gastric protectants may also be used to protect the lining of the stomach from ulceration and the esophagus from the acidic material that is passed through it during vomiting.

Mirtazapine, which is technically an anti-depressant drug, has some anti-vomiting effects as well, but it is mostly used as an appetite stimulant for cats. Getting cats with pancreatitis eating as early as possible is important to their recovery. Food in the gastrointestinal tract stimulates intestinal motility, which enhances blood flow.

Because this is so important, anorexic cats with pancreatitis should have feeding tubes placed. Keeping them eating is equally important to avoid the potential consequences of prolonged anorexia, which include hepatic lipidosis (fatty liver) and cachexia (muscle wasting).

### Bottom Line

Perhaps the most important takeaway from the 2021 ACVIM consensus statement on pancreatitis in cats is that this is a common, serious disease. We need to continue scientific study and research on this disease so that we can better help our cats live their best, healthiest lives. ■

*Scratch, continued from page 1)*

with a water squirt gun, but this is not our favorite method, as cats can develop aversions to people that squirt them. Denying access to preferred scratching places is a last resort.

The commercial market is full of interesting products to help you discourage a dedicated scratching cat. You can get furniture guards and combo furniture guards/scratching posts that fit against and around the corners of furniture that your cat wants to scratch. They protect your furniture but give your cat a good scratching option in the location she obviously likes.

Vinyl furniture guards are less expensive but can stop a determined cat. Nails can't penetrate this material so your cat will hopefully move on to a more cat-friendly option. Again, it helps to put this option right near the location your cat likes if you choose to try it.

Some cat owners find that nail caps work great for them. These are soft covers put on your cat's nails to prevent them from hooking into fabric



*If it were safe to allow our cats to run free outside, they could scratch naturally, but the risk to their safety is too great to take the chance.*

or furniture when they scratch. The nail caps require the use of an adhesive and a reasonably cooperative cat to get them on. Most caps will adhere for four to six weeks. "Consider Soft Paws (glue on nail covers) for emergency situations such as a wedding dress in the house," suggests Dr. Houpt. ■

## Start Preventing Inappropriate Scratching Early

The easiest way to handle scratching is to prevent bad choices right from the start. Crate training a kitten using a large dog crate can help if you are working outside your home and can't supervise the kitten when she is home alone.

Even adult adoptees will usually handle a crate with a bed, litter area, toys, food, and water for a few hours daily if you are away from home. When confined, your kitten won't have the option of developing bad habits by seeking out your new sectional sofa as a scratching post.

Then, when your cat or kitten is out and about, provide her with acceptable scratching post options to see what her scratching preferences are. Some cats primarily scratch horizontally while others want vertical choices. Texture is important as well. Cardboard is enticing to some felines. Others want wood, some like carpet, some prefer upholstered fabric.

While there are many expensive options, you can make your own. A piece of a wooden fence pole cut into chunks can give you multiple posts to put around your house. Make sure to attach them to a sturdy base so they hold up to a vigorous scratching session. They need to be tall or long enough so your cat can get a full stretch in as she scratches. Wrap one in a carpet sample. Leave another one natural. Try one with fabric. Sisal rope can be an effective choice. You will soon see which ones get the most action.

With horizontal scratching options, make sure to have them held in place. If they move or slide away, cats may get discouraged and go back to their earlier option-- your carpet!

Once you get a feel for your cat's preferences, attract her to the options you have provided by sprinkling catnip on your scratching post and/or putting some tasty treats on or around the post. Leave her favorite toys near the base of the scratching post or attached near the top to encourage a stretch.

# Feline Heartworm Prognosis

*Cats are not natural hosts for this parasite*

**Q** I adopted a precious cat, Figaro, from a rescue in July. Two months later, I came home to find him lethargic and having labored breathing. I took him to the emergency pet hospital where he was diagnosed with heartworm disease. My veterinarian informed me that the prognosis was not good. Since I brought him home, he has been totally normal: frisky, eating well (too much, in fact), playful, etc. He is taking prednisolone and his respiratory rate and efforts have been normal. They painted a bleak picture for Figaro, but I wondered if you might have any advice.



*Unfortunately, even indoor cats can be bitten by a mosquito, making heartworm prevention your only true defense against infection. The medication is available as a monthly chewable tablet, a monthly topical treatment, or a twice-a-year injection. These medications are only available with a veterinary prescription.*

**A** Thanks for getting in touch and I am very sorry to hear of Figaro's problem. Feline heartworm disease has been reported in all 50 states, and although cats seem to be less prone to unfavorable outcomes than dogs when they are infected, some may experience negative outcomes ranging from mild respiratory distress to death, although the latter is much less common in cats than in dogs. In some cases, cats do not show significant signs of infection. Perhaps a brief review of feline heartworm disease would be helpful.

Heartworms are transmitted from one pet to another by mosquitoes that ingest first stage heartworm larvae (called microfilaria . . . think young worms) that are circulating in the blood of an infected pet while taking a blood meal from them and then introduce them to another pet when these mosquitoes subsequently bite them to take another blood meal. An important point is that the microfilaria that are initially ingested by the mosquito must develop (to what is called the third stage larvae) within the mosquito for some time before becoming infective for other pets.

Once the third stage larvae are introduced into a susceptible pet, they

migrate from the site where they are bitten by the mosquito through the tissues of the body, ultimately finding their way to the heart (they are adults by this time) where they can reproduce to make new microfilaria that begin circulating in the bloodstream. These newly produced microfilaria can then be ingested by mosquitoes, thereby serving as sources of infection for other pets.

An interesting point is that dogs seem to be natural hosts for heartworms, while cats are likely not. For this reason, the number of adult worms that are found in the hearts of infected cats is usually much lower than in infected dogs. In most cats, the adults usually do not reproduce new microfilaria. For this reason, most cats that are infected do not serve as potential sources of infection for other pets (i.e., they have no microfilaria for mosquitoes to ingest).

It is the adult heartworms that cause the damage and inflammation to the

blood vessels that bring blood from the heart to the lungs, and this damage is what causes clinical signs of disease, so the lower number of adult heartworms in infected cats usually means that infections are better tolerated in cats than they are in dogs.

Unlike in dogs, where treatment of heartworm disease involves giving drugs that kill adult heartworms (these drugs can be highly toxic to cats), the management of cats with heartworm disease usually involves supportive care, including the use of steroids like the prednisolone that Figaro is receiving to decrease the inflammation that can be caused in the blood vessels and lungs. Antibiotics may also be used to neutralize a species of bacteria (called *Wolbachia*) that live in the mouth parts of adult heartworms and that may contribute to inflammation that can cause problems in the lungs.

While cats can succumb to heartworm, they are much less likely to do so than dogs that are infected, so I'd suggest that you continue to work closely with your veterinarian to assure best care for Figaro while he recovers.

You can learn more about feline heartworm disease at the American Heartworm Society's website at: <https://www.heartwormsociety.org/pet-owner-resources/heartworm-in-cats>

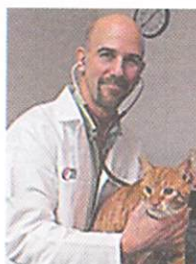
Best of luck, and please send us an update when you can. ■

## © DID YOU KNOW?

### We Own More Cats

*Estimated at 61.9 million*

**A** ccording to a recent survey from the *Journal of the American Veterinary Medical Association News (JAVMA)*, in 2020, 26% of households owned cats, up from 25% at year-end 2016, and the population of pet cats was estimated to be between 60 million and 61.9 million last year, compared with 58.4 million five years ago. ■



#### Do You Have a Health Concern?

Send your health questions to Bruce Kornreich, DVM, PhD, DACVIM, Director of the Cornell Feline Health Center and Editor-in-Chief of CatWatch. Email to [catwatcheditor@cornell.edu](mailto:catwatcheditor@cornell.edu) or send by regular mail to CatWatch, 535 Connecticut Ave., Norwalk, CT 06854-1713.



Scan this code for more information on Cornell Feline Health Center.

#### Coming Up ...

- ▶ Hoarding: Should You Report It?
- ▶ What You Need to Know About Senior Teeth
- ▶ Traveling with Your Cat and a Crate
- ▶ Feline Sensitive Stomach Woes