

THIS JUST IN

## Inside the Mind of the Cat

Netflix scores a win with this one

The Netflix documentary “Inside the Mind of the Cat” entertains, educates, and positively delights the viewer. It focuses on “what makes cats special,” says our own editor-in-chief, Dr. Bruce Kornreich, one of the experts in this film. You’ll see Dr. Kornreich sit down and play with cats, work on a “shrinking hole” experiment with them, and explain why and how cats do things. Dr. Kornreich says the film helps viewers understand what’s “unique and cool” about cats.

Joining Dr. Kornreich are feline behavior expert Dr. Kristyn Vitale from Unity College, renowned Japanese researcher Dr. Saho Takagi, and the Ukrainian cat trainers Svitlana and Maryna Savitsky, who wowed audience and judges on “America’s Got Talent” in 2018. The insights into feline behavior revealed by these experts will enhance your understanding of your own cats.

You’ll learn how cats express love, ways to train them, why cats have been an important part of human lives for over 10,000 years, and how they’ve barely changed over the millennia. “Genetics-wise,” says Dr. Kornreich, “you basically have a wild animal living in your house.”

This documentary will fascinate you and motivate you to enhance your relationship with your cat. For those of us who constantly wonder what our cats are thinking, we’ve got answers. ■

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## Adopting a Senior Cat

Choosing an older cat can be a huge advantage

We’re all easily enthralled with the cute antics of a kitten, but older cats are often loving and grateful for a home to live in, and they bring you lots of joy and many rewards.

“Older cat adopters are truly special people,” says Lena DeTar, DVM, interim director of Maddie’s Shelter Medicine Program at Cornell University College of Veterinary Medicine.

“When looking to adopt a senior cat, it is helpful to look carefully at the medical and behavioral history that the shelter or rescue has available,”



An older cat still has plenty of play left, if you offer a safe, comfortable home.

says Dr. DeTar. “The great thing about adopting an animal with a longer history is that many challenges have already surfaced, been assessed, and treatments documented as successes or failures. If the behavior or medical concern and/or ongoing management isn’t something the adopting family feels they can handle, another pet of any age might be better.”

The shelter staff usually can give you a full report on the cat you’re considering.

“Since older cats often stay a long time, shelter staff and volunteers often have more time to get to know them and can detail their quirks and preferences at great length,” says Dr. DeTar.

### Keep an Open Mind

“It is important to remember that animals, especially older animals, can behave differently in different environments,” says Dr. DeTar. “Sweet cats may become shut down and hide all the time in the shelter because it’s so different than their previous home. Meanwhile, cats with flea allergy or inappropriate elimination in a previous home might find relief just through some simple medications and a change of environment.”

### Shelter Resources

“The stress of the shelter can be especially hard on senior pets,” says Dr. DeTar. “Getting these animals into a home is a priority for shelters; many shelters offer low-cost or fee-waived adoptions of older cats.”

Asking your veterinarian to do an exam within the first week or two is important for two reasons: “First, as we all age, we commonly develop medical problems. Finding out about these problems early often allows the problem to be managed before it gets too bad. Second, establishing a relationship with a veterinarian allows that vet to be more flexible if emergencies do occur,” says Dr. DeTar.

### Patience

“Some cats will jump on your lap right away. You may need to earn that privilege from others first. Especially shy cats may benefit from anxiety-reducing medications that may or may not be prescribed by the shelter,” says Dr. DeTar.

When introducing your new cat to other pets, go slowly. The “get-to-know-you” period can take as long as a few months, depending on the cat’s personality.

Older cats know their worth and are usually extremely happy to be in a home that appreciates and loves them. If you can open your heart and make that choice, you’re helping the shelter, yourself, and the cat. ■

## Risk Factors for Cats with Cognitive Disorders

*Not surprisingly, age is the most significant*

Colorado State University researchers looked at records from past clients to determine risk factors and common complaints for feline cognitive disorder syndrome. Owners cited excessive inappropriate vocalization, most often at night. It's possible, however, that timing was a factor in making this the most common complaint. When looking at risk factors, age was significant, which is also not surprising.

What was interesting is that cats who lived in rural areas tended to have a lower risk of cognitive disorders than suburban and urban cats. That finding could be due to many factors, including less pollution, more environmental enrichment, possibly being outdoors, and other signs. More study will need to be done, of course, but this study confirmed that cognitive disorder is mainly a problem for senior cats. ■

*MacQuiddy et al. "A Survey of risk factors and frequency of clinical signs observed with feline cognitive dysfunction syndrome." Feline Med Surg, 2022 Jun;24(6):e131-e137.*

## Four Nutraceuticals You May See In Cat Foods

*There's controversy about the value of these ingredients*

Nutraceutical sales continue to grow as a way to promote wellness, and they're finding their way into feline products, too. It's important that you understand that much of the hype is taken from studies with humans, not cats, and manufacturers know how to push things to the limit, tempting you to try them. Most recently, these four nutraceuticals are beginning to trend:

**Green tea** is touted for its antioxidants. In people, studies have shown it has a propensity for lowering blood pressure and cholesterol and even halting the growth of some cancer cells. Technically, green tea is not an approved addition to pet foods, and it does contain caffeine, so you should avoid human-product green teas in favor of veterinary-specific supplements.

**Yucca schidigera** is a plant that helps reduce obnoxious fecal odors. So, while that's not a health benefit, some people might find it worthwhile.

**Turmeric** is not just a tasty cooking spice. It is felt to help with arthritis. Some studies have been done in dogs, but only short-term ones. Obviously, research needs to be done with cats to determine if it helps, is truly safe, and what dosage and formulation would be best for our feline friends. Meanwhile, you may run across it.

**Collagen** is a trending buzzword for pet health. From joints to skin and hair, collagen supplements are being sold as "improvements"—whatever that means. Most claims do not have research backing at this time.

It's important to check with your veterinarian before adding any supplements. You don't want to upset your cat's nutrition, and some ingredients could do that.

If you do get the green light from your veterinarian on a supplement you like, ask your veterinarian for recommendations and also look for brands that have the NASC (National Animal Supplement Council) seal. These products have met standards of purity and good manufacturing practices set up by the NASC. ■

## New Cat? Start Out on the Right Paw

*Litterbox etiquette when a new kitty is added to the mix*

When adding a cat, provide a litterbox with the same litter the cat is accustomed to using. Try to use the same type of litterbox, too, at least initially. Don't use a covered box or add liners if your cat is not used to them.

Place the box in an easily accessible spot where the cat can't be "ambushed" by other pets. That means don't put it in a spot where there isn't a quick getaway route. Make sure you have adequate boxes for the number of cats in your household (one for each cat plus one extra), and keep all the boxes clean.

If you have multiple cats and litterbox accidents, you may have to isolate cats one at a time to determine which cat is avoiding the litterbox. This is especially important for ruling out health problems, but it can also be useful in providing a private, comfortable situation where the cat may get back into the habit of using her box. ■

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# Dealing with Dry Skin

*Dandruff is normal, but you shouldn't really notice it*

**Y**ou run your hand over your normally sleek, shiny cat and notice flakes of dry skin. Her coat looks a bit dull, too, and it appears that she has suddenly developed dandruff. Not really. Dandruff is the normal shedding of dead skin cells, an ongoing process even in healthy cats.

“People have to remember that all animals produce dandruff 24/7/365. Normally, the flakes are so small that they aren't recognized by the naked eye. With cats, their daily grooming typically removes any that might rise to the surface of the coat. When you're talking dandruff, you have to determine if the cat is itchy and if itching came first or whether the dandruff was spontaneous. If itching—even signs of mild itching like overgrooming—came first, then you have tons of things to consider. External parasites, fleas, and cheyletiella mites, especially, are No. 1, but it could be generalized ringworm, allergies, etc.,” says William H. Miller Jr VMD, Professor Emeritus of Dermatology, Cornell University's College of Veterinary Medicine.

Dandruff can be associated with dry skin or oily skin. Causes and treatments will vary with the type of dandruff.

## Dry Skin Dandruff

Dry skin can result from environmental conditions such as heating units in your house in winter, which can result in low humidity. Adding a humidifier and regular grooming will help stimulate normal skin oils, and that may be all that is needed.

Dry skin can also result from a poor diet or poor hydration. You need to feed a food that is complete and balanced, which means the food has been formulated to meet AAFCO (American Association of Feed Control Officials) standards for your cat's age. The AAFCO certification on pet foods is normally printed on the label.

You can help with hydration by adding some water to her food or by feeding canned food in addition to kibble. Make sure her diet has adequate omega fatty acids, as these are important for skin health.

Dr. Miller cautions that cats on a low-fat diet will often develop dandruff.



Andrey Zhuravlev | iStock

*If the dandruff appears to be “walking,” your cat may have mites. Two species of mites can infest cats, although they're rare. One tends to move around, while the other likes to tightly clasp onto hairs. Both can be treated off label with topical flea and tick medications.*

Extreme weight loss diets can do the same thing. If your cat is on a prescription low-fat diet, an omega-3 fatty acid supplement like fish oil may help, but consult your veterinarian.

## Oily Skin Dandruff

Oily skin with flakes indicates seborrhea. Seborrhea is a condition in which the sebaceous skin glands produce more sebum (oily secretions) than normal. This often results in flakes of dandruff seen along the back of your cat. You may also notice skin flakes building up on her bedding and in spots where she likes to sleep. Some owners also notice an odor.

Primary seborrhea can be inherited and is seen in some cat breeds such as Persians. More commonly, seborrhea and dandruff are secondary to another health problem such as allergies, parasites, metabolic diseases such as hyperthyroidism, or a poor diet, especially one that lacks sufficient

omega-3 fatty acids. Obesity and arthritis may contribute to seborrhea if your cat has trouble grooming, allowing oils and shed skin cells to build up. Fungal and bacterial skin infections may also contribute to dandruff.

## More Than Dandruff

If you notice itching, skin lesions, or hair loss with the dandruff, you need a veterinary evaluation. Your veterinarian will do skin scrapes, possibly a fungal or bacterial culture, and a thorough exam for parasites. Bloodwork to evaluate your cat's overall health may also be recommended.

If an underlying cause is identified, that needs to be cleared first. “Get rid of the primary disease and the dandruff will go away by itself,” says Dr. Miller. For parasites, your cat and any other animals in the house will need to be treated. Fungal and bacterial infections may require oral medications such as antibiotics or antifungals (the latter may also be topical if lesions are localized). Metabolic diseases such as hyperthyroidism or Cushing's disease will require specific therapy.

A mousse or shampoo program may be prescribed by your veterinarian. “There are lots of shampoos, but most cats fail to see the sense of humor in getting a bath. With all the disorders that result in dandruff, the dandruff won't go away with one bath. Bathing once to twice weekly typically is needed for 30 to 45 days. If the cat will allow that, then a mild grooming shampoo should do the trick. Medicated shampoos should only be used if they are prescribed by a veterinarian,” says Dr. Miller. ■

## What You Can Do

- ▶ If you have dry heat such as electric or forced hot air, consider adding a humidifier.
- ▶ Be sure your cat has access to fresh, clean water and feed both kibble and canned food, which provides more hydration than kibble.
- ▶ Practice good parasite control.
- ▶ Groom your cat weekly, daily if your cat is overweight or arthritic.
- ▶ Schedule a veterinary visit if your cat is itching and scratching, has lesions, or hair loss.

## Did You Know?

**Dandruff is often blamed for human cat allergies, but most people are allergic to cat saliva, which gets transferred to the haircoat during grooming.**

# Finding a New Home

*Sometimes life requires us to make difficult decisions*

**A**dopting a cat comes with the plan of keeping that feline family member forever. But sometimes circumstances beyond anyone's control intervene, and a cat becomes in need of a new home.

Do not feel guilty about such an unfortunate decision. Instead, turn your sadness into a determination to find your cat a good new home. If the home placement is urgent, contact your local animal shelters and your veterinarian. You never know when one of them may know of a cat lover looking for just the right companion. If not, you can set about this challenge fully armed.

If possible, start looking at rehoming possibilities before you need to place your cat. If you start early enough, you will have more time to evaluate potential new families and explore all possible options. You don't have to turn the cat over immediately, but you can put the pieces in place in case that day arrives.

## Reasons For Rehoming

Finances are a big reason people are sometimes forced to give up their pets. A local shelter or some humane societies may be able to help with food and veterinary care costs until you get back on your feet. It is to their benefit—and the cat's—to try to keep her in your home rather than having her in a shelter.

If you're trying to escape domestic violence, you do not need to leave your cat. Many domestic-violence shelters accommodate pets. And, never stay in an abusive home for your cat's sake.

Another common reason for a pet needing to be rehomed is to relieve stress among other pets or people in your home. While it is painful to do so, the relief after you've made the move can be a sign that you made the right decision.

## Planning

While putting the word out, prepare your cat's "resume." Collect copies of her veterinary records and include important papers like microchip registration so these can be transferred. If you got your cat from a breeder, contact the breeder. Many reputable breeders will take back cats they provided.

Start a notebook with your cat's preferences for food, litter, toys, and



*Finding your cat the right new home is bittersweet, but you're fulfilling your obligation as a responsible cat owner.*

types of play. Mention her idiosyncrasies, like if she loves to play with balls of aluminum foil and will retrieve them, for example. Consider whether she is good with children, dogs, and other cats. Be honest. If your cat truly hates dogs and will puff up and hiss, or attack or go into hiding for 24 hours when confronted by a dog, it is best that she goes to a home without dogs.

Some cats won't adjust to being indoor-only cats. For these cats, reaching out to local barns and farms to see if anyone needs a barn cat can be a great option. Follow all the same procedures for screening, of course, but living in a barn cat situation might make your cat very comfortable in her new home.

## Screening New Owners

Be prepared to invest time in evaluating potential new homes. If the person has cats already or has had cats, ask for their veterinarian's info to check for a recommendation. Ask for three other references and contact the references. Check with local animal-control and area shelters to see if they have had any less-than-ideal experiences with the person.

Ask to visit the person's home. Does it look cat-friendly? If there are other pets, do they look well cared for? Try to determine whether all household members are on board with adding a new cat. If your cat has "people preferences"

such as hating toddlers, a new home where the family babysits grandbabies for three days a week may not be a good choice for your cat.

## A Trial Period

If you're proactive in your search, you can set up a trial period for your cat and her new family. Many cats take time to adapt to a new home and family. Ideally, you can set up a trial period so both your cat and the new family can see if this is truly a good match. Two or three weeks minimum is best. It may take your cat that long to adjust and stop hiding.

Send food along and include some feline pheromones such as Feliway. If catnip mellowers her out, pack some catnip. Any of her usual items or favorite toys can help make the new place feel like home. Think about her beloved window seat, a comfy bed she chooses every night, or a favorite scratching post, which can help make the adjustment easier.

Hopefully, the new home can arrange for any current pets to meet your cat slowly and safely. Sniffing under a door, then greeting through a pet gate are good options. If there is a "neutral territory" room in the house, that is best for face-to-face intros.

Make sure the new owner knows that you will help if there are problems, including taking the cat back. This is a big reason why handling this before your absolute "cat must leave" deadline is best. You may have to try more than once to find the right match.

Having to rehome a beloved cat can mean heartbreak for you. For the sake of you and your cat, take the time needed to find a suitable situation for her. ■

## What You Should Know

### Things NOT to do:

- ▶ Place an ad on Craigslist
- ▶ Put out posters or notices saying "free cat to a good home"
- ▶ Dump your cat at a shelter
- ▶ Turn your cat loose

### Things TO do:

- ▶ Let your veterinarian know that you need to rehome your cat
- ▶ Ask your shelter or humane society about putting up a poster listing your cat as available
- ▶ Contact friends and family who already know and love your cat

# Please, Don't Eat the Hamster

## Strategies for keeping cats and prey animals at home

Cats are hunters, born and bred. Even as tiny kittens who can barely stand, they practice stalking and pouncing behaviors. These traits have served the feline species well over the millennia and make them excellent pest-control officers. But these same killer instincts are less than ideal if you are fond of your pet birds.

Keeping a natural predator in the house with his perfect prey has many inherent risks, and we can't promise any miracles, says Katherine Houpt, VMD, PhD, professor emeritus of behavior at Cornell University's College of Veterinary Medicine. If you're considering this combination of animal residents, the best strategies for protecting your small pets are, "Sturdy cages, closed doors!" says Dr. Houpt.

### Pet or Prey

Depending on your cat's preferences, small animals might pique his interest as a snack. If you have or are considering adding any of these animals as pets, you need to make a cat protection plan:

- ▶ Canaries
- ▶ Finches
- ▶ Fish
- ▶ Frogs and Toads
- ▶ Gerbils
- ▶ Guinea pigs
- ▶ Hamsters
- ▶ Reptiles
- ▶ Lovebirds and other small parrots
- ▶ Mice
- ▶ Parakeets
- ▶ Rats

Larger pets such as chickens, rabbits, and even tiny dogs may also trigger some cats' hunting instincts. Always monitor your cat around a new pet of any species and watch closely for signs of predatory behavior, such as an intense stare, dilated pupils, stalking, or charging. And never assume that just because they've lived together for a few months, that instinct is no longer an issue. It is.

### Closed Doors

The best way to keep your small pets safe from your cat is to prevent access to them. Even if your cat seems content to just watch the prey animals and doesn't try to attack them, her scent and presence alone can be stressful. After all,

one of the keys to survival for rodents and birds is recognizing when a predator is near and taking cover.

A closed door is the most secure barrier to keep your cat away from prey animals. Keeping your birds, fish, rodents, reptiles, and amphibians in their own room away from the cat is the best insurance (of course, other family members need to be educated on the importance of keeping that door closed).

If your cat isn't too intense about the smaller animals, you may be able to let her be near them under supervision. For example, you might allow your cat into your home office where your finches live while you are working. However, closing the door when you leave is the best way to be sure that she doesn't act differently when your back is turned.

Other ways to keep your cat away are to use tall baby gates in doorways or put decorative fencing around the enclosure. Be sure that your cat can't jump or climb the barrier.

Simple "booby traps," such as a stack of plastic cups or a compressed air cannister hooked up to a motion sensor, strategically placed around a tank or cage may help to train your cat to stay away. That said, there is always a risk that your cat will go around or become accustomed to the trap and still choose to harm your other pet.

### Sturdy Cages

Any prey animal living in a house with a cat should have a sturdy cage that is difficult for the cat to break into. Even if you keep your cat separate from your snack-sized pets, mistakes happen, and it is nice to have a second layer of security.

Features to look for in a new tank or cage or potentially add to an existing one include:

#### Locking doors.

Many bird cages have guillotine-type doors that are simply lifted up, an easy feat for a cat. Choose cages that have some sort of latch on all doors or use twist ties

to fasten them closed when you are not actively caring for your birds.

**Difficult to tip.** Tall, narrow cages for birds and small rodents often appeal to us because they give our pocket-pets lots of room to explore while only taking up a small amount of floor space. But that tall narrow construction compromises the security of the cage, especially if it is made of a lightweight material. Make sure your cat can't tip the cage over if she jumps on it or whacks it with a paw as she tries to strike one of the inhabitants.

**Hefty lid.** Cats are great jumpers, especially when motivated. Consider whether the cage can support your cat's weight from above. Double check that lids on aquariums and terrariums have a latch, so that your cat can't lift them up and duck in. And if your aquarium has no cover at all, add one immediately.

**Narrow bars.** Many small mammals and birds require half-inch bar spacing anyway, but narrow bars are necessary to prevent your cat from reaching into the cage to harass its inhabitants.

### Foster Appropriate Hunting

In addition to physical security measures, you can help protect your smaller pets by ensuring that your cat is getting plenty of mental and physical stimulation. A bored feline might choose to entertain himself by testing how to eat your pet mouse, but a tired feline is more likely to settle in for a nap. Engage your cat in hunting-style play with wand toys, rolling balls, and treat-dispensing toys.

Hunting is an integral part of being a cat, so giving him an appropriate outlet with toys will both make him feel happier and more content while also protecting your prey animal pets. ■



Natural instinct is a powerful force.

# The Pain of Dental Disease

*Two inflammatory conditions dominate cases in cats*

**P**eriodontal disease is common in small animals, but cats take it a step further, being prone to two unique and painful oral disorders: tooth resorption (TR) and chronic gingivostomatitis (CGS).

“Periodontal disease and tooth resorption are the most common reasons cats are seen by the dentistry service here at Cornell’s Companion Animal Hospital,” says Nadine Fiani, BVSc, section chief of veterinary dentistry and oral surgery at Cornell University’s College of Veterinary Medicine. “These are conditions generally managed well by primary care veterinarians. As such, the cases we see at Cornell are often elderly cats with comorbidities (other illnesses), making their care a bit more complicated.”

Periodontal disease, which is a set of inflammatory conditions affecting the tissues surrounding the teeth, starts with plaque. Plaque is an invisible slime laid down by bacteria on the surface of the tooth above and below the gum line. Plaque, in addition to eventually promoting the formation of visible tartar, causes inflammation of the gums (gingivitis), creates deep pockets between the tooth and gum (periodontal pockets), and damages the



*As you can guess from the picture, gingivostomatitis results in severe, painful inflammation in the mouth.*

supporting structures of the tooth roots (periodontitis). The result is tooth loss, pain, and an open door for infection.

If your cat suffers from periodontal disease, you’ll likely initially notice bad breath. As the disease advances, you may notice pawing at the mouth, bloody drool, changes in eating habits, taking longer to eat, and withdrawal/hiding.

## **Tooth Resorption**

Tooth resorption usually starts in the enamel (outside of the tooth) and progresses deeper into the tooth and

its root. It’s fair to think of it as a cavity starting on the outside of the tooth, exposing the sensitive deeper layers of the tooth. It’s a chronic, painful condition that ultimately results in complete destruction of the tooth and root. Because it is so painful, surgical extraction of affected teeth is recommended as soon as it is identified.

While dogs occasionally suffer from resorptive lesions, tooth resorption is pretty much a cat disease. “Approximately 50% of cats will develop tooth resorption in their lifetime,” says Dr. Fiani. “Tooth resorption in cats is a very annoying mystery. We still don’t know what causes it.”

For now, your best course is to follow your veterinarian’s advice and have regular professional dental assessments and dental x-rays, including cleaning and treatments under general anesthesia. This allows for early identification of resorptive lesions with surgical extraction of affected teeth, helping ensure your cat isn’t silently suffering from this painful disorder.

## **Gingivostomatitis**

Fortunately, chronic gingivostomatitis (CGS) is not as common as tooth resorption in cats. It is a debilitating, horrible disease unique to cats. It is excruciatingly painful. It is so painful that affected cats can develop malnutrition and serious secondary health problems because it hurts too much to eat.

Some experts think certain infectious agents like feline calicivirus, feline herpes virus, or Bartonella may be involved. Cats with feline immunodeficiency virus (FIV) are over-represented in the affected population, but a causative relationship between infection with these viruses and bacteria and CGS has not been scientifically proven.

“These cases are challenging and can be quite frustrating,” says Dr. Fiani. “This is mostly due to our incomplete understanding of the disease.”

We do know there is an immune component to the disease. Some veterinarians equate it to the cat basically being allergic to plaque and/or its own periodontal tissues. This is the reason treatment typically starts with surgical extraction of the teeth. If the inflammation is limited to the back part of the mouth, some cats can keep

## **What You Should Know: *Prevention Is Possible***

A presumed genetic predisposition makes some cats more likely to develop periodontal disease, but even with these cats, it’s not hopeless. We can slow the disease progression and, therefore, the pain.

Prevention of periodontal disease involves two components: regular professional dental assessment with cleaning and treatment under general anesthesia as needed, and home dental care.

The gold standard of home dental care is daily brushing with a cat-approved toothpaste. You should use a veterinary toothpaste that contains enzymes that break down plaque, as plaque is the initiator of the entire disease process. Plaque is continually being laid down by bacteria in the mouth, making brushing every day important for preventing plaque from advancing up under the gums where you can’t reach it.

Obviously, not all cats tolerate tooth brushing. If your cat is one of those, other products are available to aid in plaque/tartar control and periodontal disease prevention in cats, including prescription diets, over-the-counter treats, rinses, gels, and water additives. Look for products bearing the Veterinary Oral Health Council (VOHC) seal. The VOHC sets rigid standards and only accepts products with valid research backing their claims (go to VOHC.org).

*(continues on page 8)*

# Is Genetic Testing Worth It?

*DNA testing may give you insight into future health*

The internet is abuzz with people doing breed identification for their mixed breed dogs, something like canine DNA genealogy. While DNA testing for cats is somewhat slower to become trendy, it is available. Is it worth doing for your cat?

For curiosity, you might want to know what breeds or groups of feline ancestors are behind your cat. Some behavior traits are associated with certain breeds, so knowing your cat has Siamese behind her might explain her tendency to suck on wool items like your scarf.

Finding color traits can be interesting but, unless you are a breeder, it's not relevant. After all, you can see what your cat looks like.

The real plus for cat owners is the chance to learn about genetic predispositions for health problems. Even mixed breed cats have genetic tendencies. You can also get your cat's blood type, which may be important if she ever needs a transfusion post trauma or post-surgery.

But the most valuable information may well be screening for genetically mediated diseases. Not all the tests identify specific genes that directly cause disease. Many of them identify markers, which means the risk is estimated. Developing the health problem may be influenced by other genes as well as environmental factors. That said, it can be very helpful to know your cat has a predisposition to polycystic kidney disease or tooth resorption.

Beint aware of a predisposition can help you to adjust your cat's care to minimize that risk. For example, if your cat shows a predisposition for dental problems, stay on top of her oral health. Your veterinarian can tell you your cat's dental status at that moment, but the testing might give you the impetus to stay ahead of any problems.

With polycystic kidney disease, you can begin to encourage your cat to drink more, add some liquid to her food, and use canned food to help ensure proper hydration, which is important for kidney function. With a kidney disease predisposition, it might be worthwhile to include bloodwork for kidney disease in her annual physical appointments.

Obviously, you want to share your



*You don't need a genetics test to find out your cat has two colors of eyes, but what if you learned she was at high risk for heart disease?*

cat's results with your vet. Some of the testing companies automatically forward a copy of your cat's results to your veterinarian. Some include a consultation with one of their veterinary geneticists as part of the cost.

How do you get a genetic screen for your cat? That's easy. Most companies provide a sterile kit with swabs to collect cells from the inside of your cat's cheek. It is important to do this when your cat has a "clean" mouth, so not right after she has eaten.

Results are generally return in a couple of weeks. Costs tend to range around \$100, although some companies offer periodic specials or group discounts if you plan to test multiple cats.

Bottom line: Is it worth doing DNA

testing on your cat? If you are a breeder, absolutely. You can avoid doubling up on any genetic predispositions for feline health problems.

For your spayed/neutered pet cat? Maybe. Knowing your cat has an "all clear" on many genetic predispositions can give you peace of mind.

It is important to recognize that many health problems have multiple causes, however. Being genetically free of polycystic kidney disease does not mean your cat will never develop some form of renal disease. And no matter what the dental health results are, your cat will always benefit from regular, appropriate dental care.

Some companies are associated with research programs, so your cat's DNA may be used to help future cats. Don't scrimp on your cat's regular health care to do it, but checking the DNA results could be useful if you can fit it in the budget. It is a one-time expense. ■

## Cornell's Feline BioBank

Researchers at Cornell are developing a database of cat DNA to identify the genetic basis of a variety of common feline diseases. By comparing DNA from healthy cats with DNA from cats with one or more common cat diseases, they hope to learn more about what roles genes may play in these conditions. This knowledge can improve diagnosis and treatment of a variety of feline diseases. If you would like to help with this study, a small blood sample will be needed from your cat (only cats ages 10 and older). There is no charge to participate. If you're interested, you can fill out the DNA donation form at <http://bit.ly/CornellCatDNA>

## What Is DNA?

DNA stands for deoxyribonucleic acid. It is the hereditary genetic code upon which life is built. Most DNA is found within chromosomes, which are contained in the nucleus of the cell, the director of all cellular activity. Cats possess 38 chromosomes (for comparison, humans have 46).

DNA is composed of the chemical bases adenine (A), guanine (G), thymine (T), and cystine (C) arranged in a double helix. These pair together—A with T, G with C—to form base pairs. The pairs are bound together by sugar and phosphate molecules, forming a "ladder." These pairs and their organization determine how an organism is built and how it functions. The feline genome has approximately 2.5 to 3 billion base pairs per cell, making up about 20,000 to 25,000 genes. Genes are short segments of DNA.

# New Cat Likes to Nip

*The best solution is to distract the cat at the first sign*

**Q**About six weeks ago, my wife and I adopted a 3-year-old tortoiseshell cat from the local shelter. We took her to our veterinarian where she got a clean bill of health. She eats well, is otherwise apparently healthy, and has maintained her weight.

Over the last couple of weeks, the cat has developed an annoying habit. She tries to bite my wife's or my leg when we are in the kitchen, especially the first thing in the morning when we are feeding her. Then, after eating some of the dry food we just gave her, she will come back to one of us with her back hunched up looking to again take a nip.

While she occasionally will want to nip at other times, for the most part, this occurs primarily during mornings.

My wife and I are both retired and are home with kitty most of every day. We play with her every morning, sometimes before the second round of biting sometimes after, and at other times during the day.

Cassie loves to be petted and frequently walks by one of us rubbing up against our legs as she passes by. As I am on blood thinner meds, I bleed and bruise quite easily. Do you have any suggestions on how to stop this?

**A**Thank you for getting in touch, and I think it is wonderful that you and your wife have taken this lucky kitty into your home. While a few thoughts might be helpful, my primary concern is for the well-being of you and your wife, as cat bites can become infected and, in rare cases, can cause serious illness.

This situation is, of course, exacerbated by the fact that you are taking blood thinners, which may predispose you to bleeding episodes if you are bitten/scratched. In this regard, it is a good idea to discuss this issue with your health-care provider.



*A seemingly playful nip can become a worrisome wound in the flick of a whisker.*

With respect to interventions that may help with this biting, the first important point is that you should not use negative reinforcement, like saying "No!" or striking her. (I am sure you would not do this!) The best way to modify unwanted feline behavior is to distract by providing acceptable alternatives to unwanted behavior and then to praise a cat for taking part in that acceptable behavior.

For example, if you notice that she is starting to behave as if she will bite, distract her with a feather toy or some other toy that she likes, and if she plays with that toy, praise her with kind words and perhaps give her a food treat that she likes. If this does not work, the best thing to do is to walk away and ignore her until she is behaving in an acceptable fashion.

It's a good thing that you seem to know when this behavior may take place, so you can be prepared with toy at the time you think she may behave inappropriately.

Of course, making sure that there are not things that may stress her in your home is important. Things that might stress her include other animals in the

house, neighborhood cats or birds that she can see through a window that may be frustrating her, new people in your home. You should also provide enough dedicated play time, which you are already doing. Other enrichment ideas that may help include the use of food puzzles, cat furniture that she can climb on, or building or purchasing a catio, which is an enclosure in which she can enjoy the outdoors safely.

If these ideas don't work, consultation with a veterinary behaviorist may help, and sometimes, medication can help calm cats that are intermittently aggressive.

I think the most important thing is that you work with your veterinarian and your health-care provider to make sure that you are keeping yourself safe while trying to address this issue.

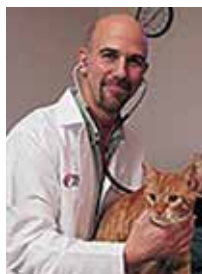
Please send an update when you can, and best of luck. ■

*(dental, continued from page 6)*

their canine and incisor teeth, with just the cheek teeth (molars and premolars) extracted. If this first step does not resolve the problem, however, the next step is to extract all remaining teeth in a second procedure.

For some cats, tooth extraction alone will be curative. If it's not, immune-suppressive therapy is indicated. For those who are improved but not cured with these treatments, life-long pain management becomes necessary. Hypoallergenic diets have been tried. Stem-cell therapy is being studied as a possible treatment. If your cat suffers from this disease, you'll likely try anything if there's a chance it will make your cat more comfortable.

Even though full-mouth tooth extraction may seem aggressive, it's the most important step in managing this devastating disease. Your cat can easily eat without teeth, and there are plenty of fat and happy "gummers" out there, with mouths that are now way more comfortable and functional than they'd be with teeth if they suffer from CGS. ■



## 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 the Cornell Feline Health Center.

## Coming Up ...

- ▶ Meowing Nighttime Noises
- ▶ When You're Adopted by a Stray Cat
- ▶ Hazards in the House We Shouldn't Ignore
- ▶ 2022 Annual Index
- ▶ How to Make Advanced Imaging Decisions