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Cats Aren't Into Groups The role of hormones

A recent study looked at three feline hormones and gut microbiomes to see if there was a correlation with which cats got along best in a group. With the exception of lions, most cat species are solitary even if they live in shelter settings and multi-cat households.

In this study, five spayed female and 10 neutered male cats in a shelter “volunteered” for the trial. The researchers examined three hormones, cortisol, testosterone, and oxytocin.

As expected, cats with higher levels of testosterone and cortisol were less likely to establish bonds and be happy in a group. Cats with higher testosterone also showed a greater tendency to escape.

The surprising finding was with oxytocin levels. This hormone is associated with several maternal behaviors, and the scientists felt higher levels of oxytocin would correlate with more acceptance of group living. Unlike other species, cats with higher oxytocin levels were less likely to tolerate other feline companions. The study also found that gut microbiomes tended to be similar in cats that hung out together, probably the effect of interactions.

More work needs to be done on this finding, but the oxytocin results suggest that, once again, cats are somewhat unique in their physiology. ■

*Koyasu, H. et al. “Correlations between behavior and hormone concentrations or gut microbiome imply that domestic cats (*Felis silvestris catus*) living in a group are not like ‘groupmates.’” PLoS ONE 17(7): e0269589*

INSIDE THIS ISSUE

Staggering Disease in European Cats	2
Mandated Spay/Neuter Act Start in Louisiana	2
Horner’s Syndrome: Sign of Middle Ear Damage	2
Who Let the Cat Out?	3
Must I Neuter or Spay My Cat?	4
When Ear Infections Deepen	6
Wet Food, Dry? Both?	7
Cat Living on the Roof	8

Something’s In Her Eye

Eye problems are commonly emergencies—and the longer you wait, the worse they become

It’s not fun when you get something in your eye. A tiny eyelash feels like a giant log. Worse, if it gets in there while you’re sleeping and unaware, it might mean a painful corneal abrasion or ulcer when you wake up in the morning.

It’s no different for your cat. Any foreign material that gets in the eye is painful and can cause damage. Hair and lint are common offenders. Grass, seeds, plant awns, and tiny bugs are frequent offenders for outdoor cats.

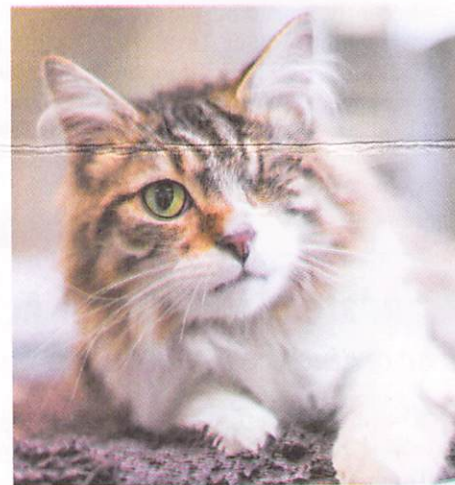
Your cat’s eye has natural mechanisms for taking care of small matter that gets in the eye. These include increasing tear production to flush it out, reflex blinking to move the matter, and a mobile “third eyelid” called the nictitans that offers protection for the cornea and helps keep the eye moist.

If these defense mechanisms don’t resolve the problem, your cat will show signs of discomfort, including squinting, a closed eye, excessive tearing, pawing at the eye, sensitivity to light, withdrawn behavior, or being prone to hiding.

First-Aid

First-aid involves flushing the eye with a commercial eye wash solution (human products are fine to use) or saline. If you can see foreign material, focus your efforts there. If you successfully move the offending material close to the eyelid margin, you may be able to drag it out using a moistened cotton ball. Once you’ve done this, if your cat seems comfortable again, you’re set.

If there’s corneal damage, you may notice a bluish cloudiness to the normally clear cornea, and your cat will continue to be uncomfortable. This means a trip to the veterinarian’s office. Any painful eye condition is considered a potential emergency, as superficial



While cats cope well with the loss of an eye, it’s wiser to be proactive if you see any indication of an eye problem and get the cat to her veterinarian immediately.

Symptoms

- ▶ Squinting
- ▶ Partially closed eye
- ▶ Excessive tearing
- ▶ Pawing at eye
- ▶ Sensitivity to light
- ▶ Withdrawn behavior
- ▶ Hiding

injury can rapidly progress to deeper damage. The risk in waiting is loss of vision or irreversible damage resulting in loss of the entire eye. Expect to be seen that day. If your regular vet has no availability, see your local urgent care/emergency veterinary facility.

Your veterinarian will usually use a topical anesthetic to better evaluate the entire eye,

including underneath the eyelids and nictitans, potentially discovering foreign material inaccessible to you at home. A fluorescent stain may be placed in the eye. This stain is drawn to any corneal injury, and the spot “lights up” in the eye upon illumination with a black light.

If corneal injury is identified, this is usually treated with antibiotics and pain medicine, with a follow-up visit in one to two weeks to confirm healing.

Staggering Disease in European Cats

Study sheds more light on this strange disease

A disease that has plagued cats in Europe for almost 50 years is finally getting some clarification. “Staggering disease” shows up with neurologic signs in cats. Affected cats move as if drunk, have tremors, seizures, and can’t retract their claws. Most cats start with mild signs primarily in the hind limbs but commonly progress over two weeks to the point of requiring euthanasia. Some cats will show an increase in vocalizations, while others become depressed and abnormally affectionate or aggressive. A few cats have survived for a year with gradually worsening symptoms.

Male cats (both intact and neutered) are at higher risk. All affected cats have had access to the outdoors, so most likely they were hunters. Winter and spring have a higher incidence of cases.

Recently, researchers looked at brain samples from 29 euthanized cats from Sweden, Austria, and Germany. In 28 of the brains, they found evidence of Rustrela virus. This virus is also commonly found in wood mice and yellow neck field mice, so they may be the host species. The Rustrela virus is a relative of the rubella virus seen in humans and has been associated with different diseases characterized by encephalitis (inflammation of the brain) in a number of other mammals, in particular zoo animal outbreaks of neurologic disease. This disease hasn’t yet been identified in North American cats. ■

<https://www.biorxiv.org/content/10.1101/2022.06.01.494454v1.full>

Mandated Spay/Neuter Act Started in Louisiana

The ordinance began July 1, 2022, and is set to expire in 2024

The Shreveport, La., City Council voted to require all pet dogs and cats in the city to be spayed or neutered, according to *SmartBrief*. This was enacted to help control the number of pets who end up in shelters. ■

Horner’s Syndrome: Sign of Middle Ear Damage

A facial paralysis, Horner’s may indicate a deeper problem

Because of the nerves traveling close to the middle ear, cats with an ear infection (see p. 6) may have facial nerve paralysis and/or a nerve disorder called Horner’s syndrome.

Facial nerve paralysis causes an inability to blink the eye on the affected side. Blinking is a natural response when you touch your cat near the eyelids or eyelashes. If your cat has a facial nerve paralysis, he will not blink when touched there. Cats with facial nerve paralysis are at risk of developing corneal disease due to their inability to blink.

Horner’s syndrome happens when sympathetic nerves near the middle ear are damaged. The eye on the affected side will look smaller than the normal eye (due to the eyeball sinking back and the upper eyelid drooping), the pupil will be smaller (more of a vertical slit), and the third eyelid will be elevated. Fortunately, Horner’s Syndrome is not painful or dangerous in and of itself. It’s more of an indicator that a middle-ear infection may be present. It usually resolves with resolution of the inflammation in the middle ear. ■



Note the constricted pupil position in the left eye with drooping eyelid, and the third eyelid position on this cat with Horner’s syndrome.

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Who Let the Cat Out?

Take a deep breath! Patience and calm will prevail

You hit snooze one too many times on your alarm, so you grab an apple to eat in the car as breakfast, figuring you can still make it to work on time. That is, until you notice your cat diving out the door with you. How can you catch him?

Stay Calm

“If you see your cat run out the door, do not panic,” says Pamela J. Perry, DVM, PhD, behavior resident at Cornell University’s College of Veterinary Medicine. Cats read our vocal tone and body language well. If you frantically run after your cat screaming his name, he is probably not going to come to you.

“Instead, speak to him in a calm, happy voice and try calling him to you,” says Dr. Perry. “If you chase after him, he may run and hide.” Keep an eye on where your cat goes. Call him in a normal voice, just like how you would summon him for a meal or some cuddle time. Your cat is far more likely to approach you if he thinks you’re going to be fun.

Being outside is exciting but stressful. Many cats click into fight-or-flight mode when they accidentally end up outside, and they may not come to you.

Even if they won’t come to you, though, they will still likely want to get back to familiar territory. If possible, open a door or some windows of your house to give your cat easy routes to get back inside to safety. He will be able to smell the familiar scents of home. Placing a favorite bed or his litterbox in a doorway can be helpful, too.

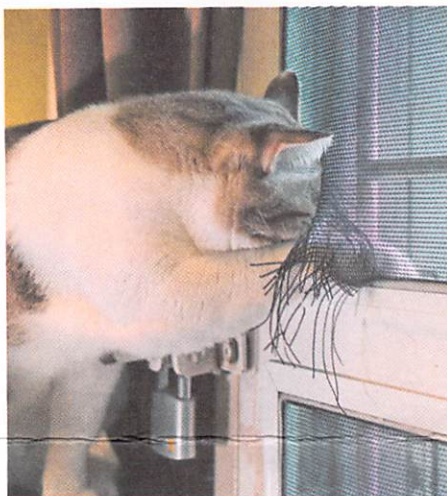
Walk, Don’t Run

Avoid running after a loose cat. He will think you are chasing him and keep running. Instead, watch where he goes. If you need to move to keep him in sight, try to parallel his route or circle around.

Most cats immediately head for cover when first outside, so bushes, trees, porches, and parked cars are big draws. Once your cat has ducked into a hiding spot, circle around where he is holed up so that he is between you and your house. This way, if he bolts as you walk toward him, he will likely run toward home.

Check Hiding Spots

“If your cat escapes and has been missing



No matter how hard we try, accidents can happen and cats can get out.

for several hours, he may not behave the same way as when he was inside,” says Dr. Perry. “For example, an outgoing, vocal kitty may hide and remain quiet when lost outdoors. Thus, it is important to look in any potential hiding spots, such as under a porch or shed.”

Start with a systematic search of potential hiding spots close to the house. Think like a cat. Scared cats can hole up in one place for days and may only come out at night when they feel less vulnerable and exposed.

Remember that cats can fit into tiny places. Be sure to look up as well as at ground level. Check any holes around the edge of your garage, porch, or garden shed, as well as under and in all trees and bushes. Lawn ornaments can provide hiding spots, as can vehicles and drainage pipes. Once you have thoroughly checked right around the house, widen your circle, and keep looking.

Use Food

Popping open a fresh can of food or shaking a bag of your cat’s favorite treats can summon a cat out of hiding. “Sitting on the ground and shaking a treat bag might entice him to approach,” says Dr. Perry. Even if this tactic doesn’t work the first time, try again at each of your cat’s normal meal and snack times. If he is getting hungry from hiding in one spot, he will be more likely to brave the big bad world to come to you for food.

Canned food works well as a lure to

draw your cat either out of a hiding spot or back toward your house because of its stronger aroma. Place a bowl or saucer with some canned food near where your cat is hiding to lure him out or place it in an open doorway to direct him home.

Toys can help get cats out of hiding, especially playful kittens and young adults. Use a wand toy so that you have control. Start by engaging your cat in play within his hiding place, then gradually move the toy so he has to come out to get it. Once he is out, he may have relaxed enough from playing to allow you to pick him up, or you can step between him and his hiding spot and direct him toward the house.

Humane Traps

Catch-and-release traps like the Havahart trap can be useful for catching an anxious cat who has gotten outside. Bait the trap with food that has a strong odor and cover it with a blanket to make it look like a good place to hide. If you know where your cat is hiding, place the trap as close as possible.

Once the trap has been baited and set, walk away. Check back every few hours to see if your kitty has been captured. If you catch other pets or wildlife, simply send them on their way and reset the trap.

With patience, calm, and a bit of cat-like thinking, you can usually locate where your cat is hiding or draw him back to the comforts of home. ■

“No! I Am Not Going!”

Cats are notorious for not wanting to be caught when they need to go to the veterinarian’s office. Somehow they just know! These tips can help combat their pre-planned avoidance:

- ▶ Feed your cat in his carrier regularly, so he associates it with good things.
- ▶ Practice calling your cat and rewarding him with special treats when he comes to you.
- ▶ Prevent access to beds or closets the night before the appointment so that he can’t get into a spot where you can’t reach him.
- ▶ Consider placing your cat in a bathroom or other small room the night before the appointment.
- ▶ Use a wand toy to draw your cat out of hard-to-reach spots.
- ▶ Try a cat carrier with a top door, so that loading your cat is easier.

Must I Neuter or Spay My Cat?

Population control is a good reason, but there's more

Most pet cats are spayed or neutered. Dealing with pungent male urine sprayed to mark territory or the histrionics of a female cat in heat quickly lead to the need for a permanent resolution through surgery (unless you are a cat breeder, of course). But there are a few other things to know.

What Does a Neuter Entail?

For many male dogs, a vasectomy might be the right choice instead of castration, which removes the testicles. By keeping his testicles, the dog has the physical benefits of his hormones (especially important if he's a sporting dog), but he would not be able to help overpopulate the canine world. Of course, he'll still try.

In cats, doing a vasectomy obviously would help feline overpopulation as well, but this procedure would not stop the behaviors that drive owners crazy. A vasectomized cat still sprays and still goes out and fights.

Therefore, most cat neuters involve removing both testicles. This is done under anesthesia with one or two small incisions in the scrotum. The testicles are removed, and the vessels are tied to prevent any bleeding. Generally, the

No Visible Testicles

Cryptorchidism is unusual in cats. This is a condition in which one or both testicles are retained inside the body instead of normally descending into the scrotum. If your cat has this problem, an incision will need to be made in the abdominal wall to open it up and search for the missing testicle(s). This is obviously a more involved procedure than standard neutering and will require sutures, plus possibly an Elizabethan collar to prevent your cat from licking or pulling on sutures.

If you acquire a male cat with no testicles evident, check his ears for clips that are done by rescue and feral cat groups to indicate he has been neutered already. Alternatively, some groups will do a quick tattoo on the abdomen, so your veterinarian will shave hair to search for one.



Spays and neuters are relatively quick and safe surgeries, but many people question if they're truly necessary.

incision sites are left open to heal. This is a routine operation done at virtually every veterinary clinic with minimal risk.

Chemical castration using a drug like Zeuterin has been approved for dogs, but it is not an option for cats at this time.

What Does a Spay Entail?

A traditional spay surgery is a complete ovariectomy (OVH), which is the removal of both ovaries and the uterus. This entails an incision in the abdomen under general anesthesia and removal of the organs with sutures or staples to prevent bleeding internally and then in the skin to close the incision. Many cats will need an Elizabethan collar to prevent licking at the incision or pulling at sutures or staples.

For female dogs, some owners opt for things like ovary or uterine sparing operations, trying to maintain at least some hormones. There have been studies showing a possible increase in some orthopedic problems and cancers in certain breeds if spayed (or neutered in some cases), hence considering leaving one or both sets of reproductive organs. Research investigating these issues in cats is currently lacking.

Some veterinarians are lobbying for uterus-sparing surgery in cats. This would mean some hormonal influences would remain, but your cat would not experience heat cycles and could not become pregnant.

The risk of pyometra (a uterine

infection related to heat cycles) is low without ovarian influence. Leaving the ovaries intact would mean heat cycles would continue, which might eliminate the cancer-preventing benefits of a complete OVH.

"I do not recommend ovary-sparing surgery because the cat will still come into heat, exhibit the same undesirable behaviors as an intact female, and be predisposed to health conditions such as mammary cancer, which, by the way, is the third most common cancer in cats of which up to 96% of mammary tumors in cats are malignant. I also don't recommend uterine-sparing surgery because there is always a risk the cat could develop cancer or other diseases of the uterus," says Leni Kaplan DVM, senior lecturer, Cornell University's College of Veterinary Medicine.

Once again, if your stray female is not showing signs of heat, look for an ear clip or tattoo signifying that she was spayed while feral. A small surgical scar may also be evident if her abdomen is shaved.

Ideal Age

Determining the ideal age to spay or neuter your cat isn't as simple as it may seem. Traditionally, spaying/neutering has been performed at 6 months of age, but this has more recently changed. Many female cats will have their first heat at 5 or even 4 months of age. The American Association of Feline Practitioners now says that 4 to 5 months is a fine, perhaps even ideal, age for spay/neuter timing.

The Association of Shelter Veterinarians (ASV) suggests an even earlier spay/neuter age, particularly for kittens in a shelter or rescue situation. **This organization supports spay/neuter for kittens from 6 to 18 weeks of age.** It recommends screening the kittens so that only healthy kittens have surgery at this young age but suggests that surgery and anesthesia times are shorter and recovery is faster when this procedure is carried out at this early age. For kittens in a permanent home, ASV suggests surgery at 18 weeks of age or older might be preferable due to the development of immunity through vaccinations, as these kittens would be finished with their initial vaccine series.

Spaying your cat before her first heat virtually eliminates the risk of mammary cancer. This is a serious concern, since most breast cancers in cats are aggressive and malignant. With removal of the uterus and ovaries,

the risk of cancer in those organs is eliminated, as is the possibility of uterine infections (pyometra). A spayed cat won't get pregnant and risk dystocia (a difficult labor) or contribute to the feline overpopulation problem.

A neutered male is much less likely to spray or mark his territory and is less likely to roam or get into fights.

Spayed and neutered cats seem to have improved longevity when compared with their intact counterparts. A 2013 Banfield State of Pet Health Report on life expectancy in cats showed that for spayed females, life expectancy was 13.1 years and for intact females, 9.5 years. Life expectancy for neutered males was 11.8 years and for intact males, 7.5 years. This differential may be partly due to the fact that spayed and neutered cats are more likely to be indoor house pets, so are at reduced risk of being hit by a car and infectious diseases that are often rampant in outdoor cat populations.

Concerns About Early Spay/Neuter

Initially, there were concerns related to the surgeries themselves with early spay/neuter. More recently, anesthetic protocols have been refined for kittens that weigh at least 2 lbs. They do need to be carefully watched for hypothermia and/or hypoglycemia, but planning warming stations and only withholding food for two hours prior to surgery seem to counter those problems in most cases. Many veterinarians feel that the actual surgery is safer and faster, as the organs are less developed.

Beyond the surgeries themselves, effects on urinary tract problems, behavior, and orthopedic problems were considered. Studies have shown no increase in urinary blockage in male cats who were neutered very early on. Ureteral diameter is not influenced. Behavior problems were also evaluated and shown not to be affected by the early surgeries. A study of 800 shelter kittens showed no increase in undesirable behaviors in those that had undergone early spay/neuter.

Orthopedic problems have shown up in some dog breeds with early spay/neuter, especially medium to large or giant breed dogs. Cats tend to have fewer orthopedic defects to begin with, and studies have not shown an increase in problems with early spay/neuter. Cats that undergo early spay/neuter may experience some bodily changes, such as being taller and longer in body shape,

due to a later closure of bone growth plates. Overweight young male cats that undergo early neuter may be slightly more at risk for a "slipped" femoral head requiring surgery.

Obesity is a problem seen in many pet cats, no matter the age at which they were spayed or neutered. Your veterinarian can advise you on the best nutritional plan for your kitten or cat to help prevent obesity and to regain a healthy weight for your cat if he/she becomes overweight. Regular exercise is as important as cutting calories for most cats in such weight loss programs.

What to Do?

Considering a kitten in a secure, permanent home is different than considering a population of shelter kittens. Pet cats are generally kept indoors and aren't roaming and potentially contributing to the feline overpopulation problem. So, you may choose to wait until 5 or 6 months of age so your kitten is past her initial vaccinations.

On the other hand, if your male kitten is even thinking of starting to spray his urine to mark his territory, you will want that stopped. If your

*No question about it:
Kittens are adorable.*



Cherry-Merry iStock

female kitten goes into heat, you will probably want that behavior halted as well. Spaying/neutering your kittens at 5 months old, theoretically before puberty hits, should prevent those situations.

The Feline Fix by Five campaign is endorsed by the American Veterinary Medical Association, American Association of Feline Practitioners, Association of Shelter Veterinarians, American Animal Hospital Association, EveryCat Health Foundation (formerly the Winn Foundation), Catalyst Council, Cat Fanciers' Association, and The International Cat Association.

Dr. Kaplan believes that the benefits of early spaying/neutering (8 weeks and 5 months of age for shelter and owned cats, respectively) are backed by research (evidence-based medicine). Early spay/neuter promotes longevity, is easier, faster, and safer from an anesthesia and surgery standpoint, helps decrease overpopulation, and poses few, if any, medical or behavioral risks.

As always, this is a decision for you and your veterinarian to make together, putting the best interest of your new kitten first. ■

Solutions On the Not-So-Distant Horizon

The Alliance for Contraception in Cats and Dogs continues to look at nonsurgical options for sterilization. There is a \$25 million Michelson Prize in Reproductive Technology available for a permanent, single-dose, nonsurgical sterilant for male and female dogs and cats. The goal is to have a quick, easy, inexpensive, and safe way to sterilize strays and feral animals when they are caught so they can be released rapidly and safely while eliminating their ability to reproduce. Not surprisingly, research is ongoing at many facilities worldwide.

In addition, researchers are studying a vaccine called GonaCon that stimulates immune reactions against gonadotropin-releasing hormone, effectively shutting down reproductive activity in fertile stray cats. More work needs to be done to verify the longevity of this treatment (it currently seems to be effective for one year) and to be sure there are no damaging side effects. Some cats in the study had granulomatous reactions at injection sites. Obviously, if this was an effective long-term treatment, it would save a great deal of expense and time currently needed for surgery and confinement post op.

Other researchers are looking at gene therapy to prevent the development of ovarian follicles in cats, thereby preventing pregnancies. Initial studies suggest that this modality is promising, but further studies are needed.

When Ear Infections Deepen

An “itchy ear” can develop into a whole lot of badness

Ear problems in cats are a real cause for concern, as they frequently occur secondary to an underlying issue, and they can quickly progress to deeper, more dangerous disease.

Early signs of ear disease include:

- ▶ visible discharge from the ear canal
- ▶ redness and odor in the ear canal
- ▶ head shaking
- ▶ scratching at the ears
- ▶ painful ears
- ▶ swollen ear flap

Exterior Ear

Most cats are initially brought into a veterinary clinic due to an external ear issue. Underlying causes include parasites (ear mites), allergies, polyps or tumors, and foreign bodies. The age and lifestyle of your cat lends a certain index of suspicion for the likely cause: Ear mites are most common in young kittens; tumors are usually found in geriatric cats; allergies and polyps occur most often in young adult cats; and foreign bodies are the bane of outdoor cats.

When you bring your cat in with a concern for ear disease, your veterinarian will do a full physical exam and check for any evidence of concurrent skin issues. An otoscopic exam will be performed to visually assess the ear canal, all the way to the ear drum. If there is abnormal debris present, samples will be procured to check for ear mites and bacteria or yeast infection.

An important aspect of your veterinary visit is a thorough cleaning of the external canal, which may be necessary for your veterinarian to effectively assess the ear canal and the ear drum. If there's an ear infection, cleaning is essential for successful treatment, as excessive debris interferes with the effectiveness of any medications that are prescribed.

If infection is identified, topical treatment is typically necessary. Most topical ear treatments include a steroid to treat the inflammatory component that is making your cat uncomfortable. At the end of the recommended treatment course, a follow-up exam is recommended to confirm complete resolution of the infection. Without it, if your cat suffers another episode, there is no way to know if it is a new infection or



Your first indication that an ear problem may be developing is often debris inside the ear.

a flare-up of an unresolved infection. The concern with an unresolved infection is that it can extend deeper into the ear.

If your veterinarian identifies an underlying cause—like allergies, mites, or a foreign body—these will be addressed to help keep your cat's ears healthy moving forward. Polyps and tumors can be harder to identify in the early stages, as they often originate behind the ear drum and cannot be visualized during otoscopic exam.

If no infection or underlying condition is identified, your cat may simply be an exuberant ear wax producer. This is most common in cats with greasy hair coats. If this is your cat, he needs regular ear cleaning at home and may occasionally require a topical steroid for inflammation. Your veterinarian or veterinary technician can teach you how to safely clean your cat's ears at home and make recommendations for how often you should do it. (Hint: NEVER stick a Q-tip in there! You can easily rupture the ear drum.)

The Middle Ear

An unresolved simple ear infection can develop into an infection called “otitis media,” which is an infection of the middle ear. You may notice your cat showing pain when she opens her mouth wide, tilting her head, or appearing to have hearing loss, in addition to the signs we mentioned above.

Because of the nerves traveling close to the middle ear, cats with otitis media may have facial nerve paralysis and/or a temporary nerve disorder called

Horner's syndrome (see p. 2) that causes your cat to be unable to blink. Horner's indicates that a middle ear infection may be present.

Your veterinarian's otoscopic examination may reveal a bulging, discolored, or ruptured ear drum. Further diagnostics, if needed, might include bacterial cultures, skull x-rays, or advanced imaging, like a CT scan or MRI. Initial treatment usually involves systemic antibiotics and pain medications. Sometimes the middle-ear cavity requires surgical drainage.

Middle-ear infection causes include:

- ▶ chronic unresolved external ear infection
- ▶ upper respiratory, sinus, or mouth infection
- ▶ ruptured ear drum
- ▶ polyps or tumors
- ▶ nasopharyngeal polyps

Nasopharyngeal polyps are benign, inflammatory polyps that start in the nasal cavity. They are most common in young adult cats. Cats with nasopharyngeal polyps may breathe noisily, snort, or have nasal discharge. When the polyp extends up through the Eustachian tube to the middle ear, otitis media results. Resolution requires surgical removal of the offending polyp.

Inner Ear Inflammation

An unresolved middle-ear infection can journey deeper into the ear. Additional signs that your cat's ear disease is even more serious include:

- ▶ loss of balance
- ▶ severe head tilt
- ▶ compulsive circling
- ▶ eyeballs jerking back and forth

This is an uncomfortable, distressing situation. While there are other causes of a deep ear infection, the most common cause is chronic, untreated middle-ear infections. Treatment is similar to that of middle-ear infections, with the addition of anti-nausea medications.

Bottom Line

What may seem like a minor ear issue can turn into a whole lot of badness if ignored. Pay attention to your cat's ears and her associated behavior, like scratching at the ear or head tilting. See your veterinarian if anything changes and be sure to keep your follow-up appointment if ear disease is diagnosed. Jumping on that initial minor irritation can avoid a whole lot of suffering for your cat and your wallet. ■

Wet Food, Dry? Both?

The answer is yes, mostly. Here's why.

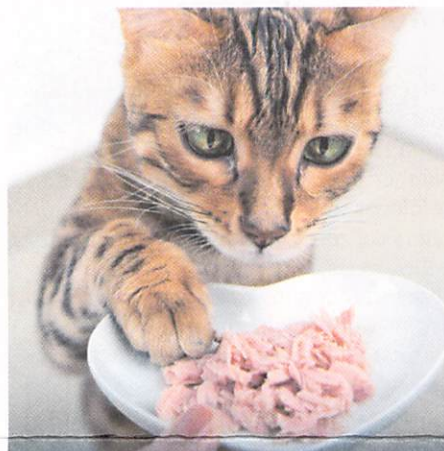
We have so many options when it comes to feeding a cat, and this is surely a good thing. It would seem like the first decision is whether to feed a dry (kibble) diet or a wet (canned) diet. But here's the thing: There are pluses to both types of foods, and you don't have to pick just one.

Prepare for Anything

"I would say, in general, it's good to get your cat to eat both early so you can switch to what is needed depending on the health issues with your cat," says Joseph J. Wakshlag, DVM, PhD, chief of nutrition at Cornell University's College of Veterinary Medicine. If your cat will willingly eat both canned and dry food, she will have an easier transition if she ever requires a particular diet for a health problem like kidney disease.

Another plus to feeding your cat both wet and dry food is that you have more flexibility in what you can buy for her. As we are still experiencing the periodic issues associated with the stocking and overall supply of pet foods that started with the COVID pandemic. With that in mind, it is a relief to have other food options she will accept if your cat's first choice food isn't available.

To feed both wet and dry food, you can put a little canned food on top of your cat's dry meals, or you can feed dry food at one meal and canned food at the other meal. Another option is to use canned food for your cat's primary meals but use kibble as treats throughout the day or during training sessions.



If you feel like she's checking to see that you're feeding her correctly, you're probably right.

When Dry Food Shines

Here are some day-to-day situations in which dry food is ideal:

Puzzle toys. Kibble falls out easily as your cat manipulates the toy (and makes for easier cleanup).

Automatic feeders. Most automatic feeders are not able to keep wet food moist over time, making dry food the better choice.

Chase games. If your kitty needs more exercise as part of a diet, tossing kibbles for her to chase is a fun and easy way to burn some calories.

Dry Food Required

"If your cat has dental disease as a primary issue then it would likely be dry food that wins, particularly a dental formula to help with the teeth," says Dr. Wakshlag. Firm, crunchy kibbles

encourage your cat to chew, which can help to prevent plaque and tartar buildup. Dental diets are specially formulated to promote chewing and reduce plaque. Don't be put off by the extra-large kibbles. That is intentional to encourage your cat to chew instead of just swallowing them whole.

When Wet Food Shines

Here are some day-to-day situations in which canned food has an edge:

Promoting hydration. If your kitty isn't big on drinking water, the extra moisture in canned food can help to keep her hydrated.

Staying lean. The higher protein content and higher moisture content of most canned foods can be helpful for cats who have trouble maintaining a healthy weight.

Enticing picky eaters. The stronger aroma of wet foods can stimulate your cat's appetite and encourage her to eat regular meals.

Wet Food Required

Cats with some health conditions may benefit from feeding a wet food. One example is urinary disorders such as feline lower urinary tract disease or chronic urinary tract infections. "If there are urinary issues then canned wins since the hydration is necessary," says Dr. Wakshlag. That extra moisture helps to flush your cat's urinary tract, taking bacteria, crystals, and other debris with it. Prescription canned diets are even better for specific urinary issues.

Chronic kidney disease is another situation in which feeding a canned prescription diet is often ideal. Prescription kidney diets are the only diets adequately formulated to forestall the progression of kidney disease, and canned diets have the bonus of helping to keep your cat well-hydrated.

Diabetic cats and other kitties who struggle with weight loss may also benefit from a wet food diet. The higher moisture content can make canned diets less calorie dense than many dry foods, making your cat feel fuller when eating the same number of calories of wet food versus dry.

A word of caution, however: Calorie content of cat foods can vary widely, regardless of whether they are wet or dry. If your cat needs a weight loss plan, discuss food options with your veterinarian to determine which food is the best fit for your situation. ■

Tips for Introducing New Food Types

Cats can be particular about what they eat. If your kitty doesn't immediately like a new food option, don't despair.

Try mixing canned and dry food together. Some cats who prefer canned food can be acclimated to dry food by mixing.

Try serving wet and dry food separately. Just like toddlers, some cats don't like when different foods touch. If your cat turns up his nose at mixed foods, try offering both options in different bowls.

If your cat has been eating one particular diet for a long time, try to find the closest match in the opposite diet type. So if you're currently feeding a chicken-based dry food, opt for a chicken-based canned food from the same brand so that the new texture is introduced with a familiar flavor profile.

Cat Living on the Roof

After 14 years, this formerly feral cat has decided not to return to the indoors

Q My cat was once feral, but she has lived with me for 14 years now. Recently, she did not return after I let her out, and I can see that she is now living on the roof of my house under the eaves. I have been putting food and water out for her, but she will not let me grab her to bring her in. Do you have any advice about how I might be able to retrieve her?

A Thanks for getting in touch, and I am very sorry to hear of this kitty's predicament. I am glad to hear that you are able to get food and water to her and that she seems to have some sort of cover from the elements, but it is clearly important to get her down for her safety.

The first thing I suggest, of course, is that you don't try to go out on your roof to get her. It may be possible to lure her in, to provide her with a safe option to come down herself, or to trap her.

To try to lure her, I suggest using something very tasty and fragrant that she does not usually eat, like sardines, tuna, or wet dog food. You can start by initially putting a small amount of food out on the roof at arm's length from the window sill and, if she is interested, put a bit more out a bit closer to the window, then closer and closer on subsequent offerings, until you can get her to come inside. This may take time. The goal is to not try to grab her and spook her but rather to have her come in on her own.

Another idea that I have seen work, if possible depending upon your roof, is to lean a long piece of lumber at as shallow an angle as possible against your house to the roof so that she can use it as a bridge to get down herself.

It may also be possible to trap her using a humane trap baited with similarly attractive food depending upon the conformation of your roof (i.e., if there is

a flat surface on the roof to place a trap that you can reach).

If these ideas don't work, consider contacting and hiring a local wildlife rescue or tree trimming service that also offers cat rescues. Contrary to popular belief, most fire departments will not assist in removing cats from high places, as this would make them unavailable to address fires and other emergencies that may arise.

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

(eyes, continued from page 1)

Penetrating Injury

A penetrating ocular foreign body is a much worse situation. Penetrating foreign bodies puncture the cornea. Sometimes they just puncture and don't stick around, like a pin prick. Other times, they puncture and stay stuck in the cornea. Either way, it's bad and an emergency. Examples of offending agents include cat claws, splinters, twigs, porcupine quills, and sewing needles.

If the cornea is penetrated in this way, intraocular inflammation is inevitable and infection is likely. When a foreign body punctures the cornea, it enters the anterior chamber of the eye (the area between the cornea and the iris), immediately causing anterior uveitis. Uveitis is inflammation of the middle layer of the eye, which includes the iris (the visible colored portion of the eye surrounding the pupil). Signs of uveitis include pain, cloudiness or visible blood inside the anterior chamber, and a constricted pupil. Sometimes the iris will look swollen or discolored.

The deeper the penetration, the more likely the lens and posterior chamber of the eye are to be damaged or infected,



If your cat is refusing to leave a roof, you may want to contact wildlife rescue or a tree trimming service for help getting the cat off of the roof. You should expect to have to pay for these services, of course.

which worsens the prognosis both for saving vision and, possibly, for saving the eye. Additionally, cats who suffer traumatic injury to the lens capsule are prone to subsequently developing cancer in that eye (intraocular sarcoma), another strike against a good prognosis.

If your veterinarian sees an embedded corneal foreign body, or suspects there has been a penetrating corneal injury, you will likely be referred to a veterinary ophthalmologist for specialized care. If the corneal wound is big enough, and the eyeball is otherwise intact (i.e., not collapsed) surgery to suture the wound closed may be indicated. Antibiotics and pain management are important aspects of treatment of these injuries.

Because severe penetrating eye injuries are difficult to treat successfully, long-term complications like recurrent uveitis and glaucoma (elevated pressure within the eye) are common, and the prognosis for saving vision is guarded to poor. Enucleation (removal of the eye) is frequently recommended and is often the best option in advanced cases. If treatment is elected and fails, enucleation becomes the only remaining option. ■



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 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.

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- ▶ *Is Your House Truly Cat-Safe?*
- ▶ *Shutting Down Nighttime Feline Noise*
- ▶ *Making Feline Genetics Work for You*
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