



# CatWatch

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



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## IN THE NEWS ...

### Calling Dr. Google! You're Wanted Online

An overwhelming number of British veterinarians — 98 percent of them in a survey of 1,208 — say that clients who search the Internet for advice before visiting a veterinarian are more likely to diagnose and treat their pets themselves.

One result is that professional care is delayed; 81 percent of respondents in the survey by the British Veterinary Society say clients brought their pets in later than advisable. "Dr. Google often results in owners misdiagnosing conditions, followed by the client being led to believe that there is a cheap and effective 'treatment' obtainable online or from a pet shop," one veterinarian says. "And thus animals suffer far longer than need be."

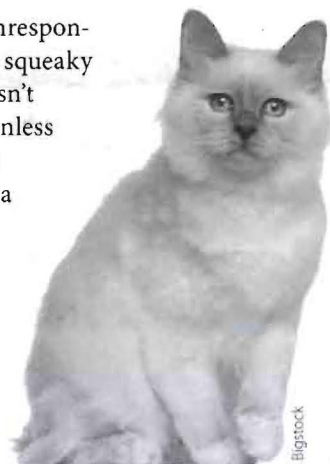
Society President Robin Hargreaves, BVSc, MRCVS, concludes: "While some useful information about pets is available online, particularly from the established animal charities [societies], the best source of information for animal health concerns will always be your vet, who knows your pet." ♦

## Most Cases of Deafness Are Acquired

*Rather than being inherited, they develop when disorders, such as infections of external ear canal, go untreated*

If your cat has become unresponsive to everyday sounds, squeaky toys or his name, if he doesn't know you're in the room unless you touch him, or if a loud noise fails to awaken him, a veterinary visit should be scheduled to determine if he's losing his hearing. Hearing is a vital sense for cats and greatly contributes to their self-preservation and comfort with us.

Deafness in cats can be caused by a wide variety of conditions.



Eighty percent of cats with white coats and blue eyes have at least partial deafness.

It can be temporary or permanent, complete or partial, acquired or inherited. Certain cats are at greater risk of hearing loss because of their breeds or lifestyles — outdoor cats, for example, are more prone to ear mites. The best line of defense for owners is to be educated about this complex condition.

**Congenital Cases.** The overall incidence of deafness in cats has not been determined. Some cats are deaf at birth, and this congenital disability cannot be corrected. White cats, in particular, are likely

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## What's Your Cat's Age in Human Years?

*If he's a senior, it's time for twice-annual visits to the veterinarian for earlier intervention in any problem*

If there were an AARP for pets, your cat would get his membership card when he turns 8½. That's about 50 years old in human years, according to "Feline Life Stage Guidelines" from the American Association of Feline Practitioners and American Animal Hospital Association.

If he's reached 11 years of age, that's roughly equivalent to 60 human years. The milestone means it's time to start veterinary wellness exams twice a year if you haven't already.

"The most important reason is that cats age faster than people, so it is more important to catch problems sooner — in-

tervention can occur earlier," says Brian Collins, DVM, a lecturer in the Community Practice Service at Cornell University College of Veterinary Medicine.

**Monitoring Disease.** "I will recommend even more frequent visits in some situations, particularly for owners who are interested in close monitoring of chronic disease conditions," Dr. Collins says. "More frequent visits can be stressful for some patients, but we do our best to make them as pleasant as possible. Some pets become more at ease as they visit more often."

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# CatWatch

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## SHORT TAKES

### The Search for a Definitive Diagnosis of Osteoarthritis

Estimates are that osteoarthritis affects 90 percent of cats over the age of 12 years. Confirmation of the disease, however, can sometimes prove elusive. In the search for an accurate diagnosis, the Winn Feline Foundation has awarded a grant, funded by the animal health company Zoetis, to researchers at the University of Melbourne. Their goal is to develop a blood test biomarker — a molecule indicating an abnormal process — so the disease can be identified earlier.

Cats with osteoarthritis go undiagnosed for a number of reasons particular to their species. Unlike affected dogs, they rarely experience decreased range of motion, according to the Food and Drug Administration (FDA) in a compilation of research. In a study of 86 joints in cats with osteoarthritis, only five joints had limited range of motion. That same study also found that none of the 86 joints had crepitus, the creaking sound common in arthritic dogs and people.

Although owners may notice their cats no longer leap to great heights, few report lameness in them. Cats' joints are often affected bilaterally — for instance in both elbows. They compensate and appear to walk normally, and owners don't see the subtle change.

Cats also are known to conceal pain. While veterinary guidelines identify sudden pain in cats, no objective means is available to evaluate chronic pain and dysfunction.

Yet another factor, perhaps the most crucial, is that while X-rays are described as the gold standard for evaluating arthritis in cats, signs of the disease often aren't visible on them, the FDA says. It cites a study of 292 cats with osteoarthritis in which 229 of them, or 78 percent, had no X-ray evidence of it. In another study, at North Carolina State, 73 percent of enrolled cats showed mild osteoarthritis in their joints on X-rays, but post-mortem examinations showed significant cartilage loss.

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**Lameness is rarely reported as a sign of osteoarthritis** because the disease often affects joints bilaterally — for instance in both elbows. Cats compensate, appear to walk normally, and owners don't see the subtle change.

"Radiographic (X-ray) evidence has a very poor correlation with clinical signs (either pain or dysfunction)," says the Winn Feline Health Foundation, noting that, unlike a blood test, X-rays often require deep sedation or general anesthesia of cats, which sometimes isn't advisable. Another important advantage of a blood biomarker: earlier diagnosis could lead to earlier treatment.

### Facial Recognition at the Feeder

A number of timed food dispensers are on the market, but a new product called Bistro aims for the ultimate: a feeder with facial recognition. It's a clear plastic enclosure that holds 15 cups of dry food, water dish and camera to identify a cat and dispense food only to him.

The company, which is raising money through contributions, believes Bistro could be a hit in multi-cat households, where an eager eater may crowd out others. An app allows owners to check their cat's weight and food and water intake, and watch a live video of him eating. The feeder, costing about \$249, is expected to launch in February. ♦

### Clarification

A statement in a sidebar to the October 2014 article that mast cell tumors are considered to be malignant ("Promising Drugs for Mast Cell Tumors") requires clarification. Although the article does state that the majority of skin MCTs are benign, the statement in the sidebar was meant to suggest that it is best not to assume that a skin MCT is benign in determining therapy to avoid the potentially unfortunate consequences of the rare malignant MCT.



# Those Lovely Lilies? They're Lethal

*Other holiday plants, such as mistletoe, holly and English ivy used in wreaths, are also poisonous*

A touch of green around the house during a long, cold winter provides a reminder of spring and creates a festive mood for the holidays. Although plants like lilies are lovely, the effects on a cat who ingests them are decidedly not. In the case of lilies of the *Lilium* species, cats can suffer potentially fatal kidney failure.

Lilies are tall perennials that grow from bulbs featuring large, prominent flowers with six petals. The flowers are often fragrant and come in a range of colors. Some, like tiger lilies, are orange with dark markings; others such as Easter lilies (*Lilium longiflorum*), with pure white, trumpet-shaped flowers, are traditional holiday favorites — but not among cat owners who know they're poisonous.

**Effects of Ingestion.** Signs of ingestion in cats include vomiting, lack of appetite, lethargy and death if left untreated. "Some of the cats we see have had symptoms for days, as their owners were unaware that lilies are toxic," says Elisa Mazzaferro, DVM, Ph.D., ACVECC, at Cornell University Veterinary Specialists in Stamford, Conn.

"Unfortunately, by the time many of these cats come in, their kidney failure is irreversible. By contrast, when cats are caught early on, we can induce vomiting, then treat them in the hospital with IV fluids. Their prognosis is generally good, and they often go home to lead happy, healthy lives."

Other plants containing "lily" in their common name are actually unrelated to true lilies and are less toxic to cats. Some, such as *Spathiphyllum*, or peace lilies, are evergreens with a lily-like flower.

Like others in the *Araceae* family, including dieffenbachia and philodendron, these plants contain insoluble calcium oxalate crystals that cause irritation to the mouth, esophagus and stomach if ingested. Excessive salivation, vomiting and difficulty swallowing can also occur.

Treatment consists of pain control, anti-nausea medication, other medications to coat the stomach and esophagus, and IV fluids if there is difficulty swallowing. Happily, the prognosis is good.

**Aggressive Treatment.** Lily of the valley, although not a true lily, is nevertheless poisonous and requires aggressive treatment. If ingested, severe signs can be seen, including vomiting, diarrhea, decreased heart rate, cardiac arrhythmias and seizures. (Certain lilies are also poisonous to dogs.)

Amaryllis plants such as *Amaryllis belladonna* — another flowering plant often confused with lilies — can cause lethargy, vomiting, diarrhea, excessive salivation, anorexia and tremors.

Despite their bright red leaves that seem to shout danger, poinsettias result in only mild vomiting and gastrointestinal discomfort, Dr. Mazzaferro says. Mistletoe, however, can cause vomiting and diarrhea, slow heart rate, low blood pressure and irritable, irregular behavior. "It's a much more serious intoxication," she says.

**Tree Oil Risks.** While needles and oils from spruces, firs and pine trees can be irritants if ingested, they are not truly toxic. Common holiday plants often used in wreaths, including holly, English ivy and boxwood, pose greater risks. Their effects are generally similar. "They can cause vomiting, excessive drooling, nausea and diarrhea," Dr. Mazzaferro says.

Treatment generally consists of anti-nausea medication and IV fluids if needed. One exception is the more toxic cyclamen, another popular flowering houseplant with upswept petals and patterned leaves — including *Cyclamen coum* that sports a Christmas tree pattern on its leaves. In addition to the previous symptoms, ingestion may also lead to abnormal heart rhythms, seizures and possible death. Treatment may



Ingestion of just as little as two or three leaves of an Easter lily — or even the pollen or water from the vase — can result in severe, sudden kidney failure, according to the Pet Poison Helpline.

include IV fluids, anti-nausea medication and other medications to counter abnormal heart rhythms, Dr. Mazzaferro says.

The best strategy to prevent holiday plant poisoning isn't keeping them out of reach. Curious, climbing cats can get to them. Dr. Mazzaferro's recommendation: "Before bringing a plant into household, check out the ASPCA Animal Poison Control [aspc.org] online list of poisonous plants, and don't bring these plants into the house." ♦

## WHAT YOU SHOULD KNOW

According to the Pet Poison Helpline's top 10 list of common cat toxins, lilies are No. 4, and insoluble oxalate plants in the *Araceae* family, such as certain lilies and philodendron, are No. 5.

If you suspect your pet has ingested a questionable plant or substance, call his veterinarian, the 24-hour Pet Poison Helpline at 800-213-6680 or ASPCA Animal Poison Control at 888-426-4435. Both charge a fee.

Identification of the suspected substance is crucial. Having the plant itself, the container, package or label in hand saves valuable time whether on the phone or at the veterinary clinic.



## SENIOR...

(continued from cover)



Kittenhood lasts six months, followed by the junior classification up to 2 years, then the prime life stage through 6 years of age.

The veterinarian will examine your senior feline closely and, if necessary, order laboratory tests and imaging to detect disease.

Here's what to expect:

### A Thorough History

**Purpose:** It's just as important as the physical exam to get an idea of overall health. You'll be asked such questions as: Have there been any changes in your pet's urination or defecation? Coughing, sneezing, vomiting, diarrhea? Problems with mobility or pain? Have you observed any changes in behavior that suggest decreased vision or hearing, such as squinting or failing to respond to everyday sounds? Any changes in eating or drinking habits?

How about other behavior changes? Cats with osteoarthritis, which can be treated with medication, diet and even acupuncture, seem less willing to jump up or down. They may cry when lifted or move more slowly or with a crouched posture.

You'll also be asked if your cat is less active. Has his lifestyle changed? Have you moved to a home with more or fewer floors to navigate? "We have to see if anything has changed since the last visit," Dr. Collins says.

### The Physical Exam

**Purpose:** to determine overall health.

**Essentials:** Veterinarians look for acquired health problems through visual and manual inspection, carefully feeling the abdomen to check for masses and to assess the shape and size of abdominal organs. Common problems include skin lumps (both benign and malignant) and lameness due to arthritis or neurologic diseases. Conditions that require

treatment include high blood pressure, the heart disease cardiomyopathy and chronic bronchial disease, so the veterinarian will use a stethoscope to listen to the sounds of the lungs and heart.

"We also look carefully at the eyes for changes that can threaten vision or give clues to other diseases," Dr. Collins says.

### Nutrition

**Purpose:** to determine if your cat is at a healthy weight and that he's on an appropriate diet.

**Essentials:** Is your senior cat too thin? That's a possible sign of many underlying conditions, including kidney disease, hyperthyroidism, cancer and dental disease. Is he overweight, a risk factor for both arthritis and diabetes? If so, the veterinarian might suggest three or four small feedings per day of canned food or a diet designed to promote weight loss.

Additional diet advice will be tailored to your cat's needs. For example, if he has chronic kidney disease, a therapeutic diet could lengthen his life. If his vitamin B levels are low, he may be prescribed a supplement. The veterinarian may advise that you provide several dishes of clean water or a water fountain to ensure that your cat consumes enough water.

### Blood Work

**Purpose:** to detect or confirm disease.

**Essentials:** Veterinarians often recommend a complete blood count to evaluate blood cells and a chemistry panel to check organ function. Other tests may be ordered based on initial test results, the abnormalities that you report or the physical examination.

## AT 6 MONTHS, A KITTEN IS 10 IN HUMAN YEARS

Guidelines from the American Association of Feline Practitioners and American Animal Hospital Association point out that these age groupings in life stages are inevitably arbitrary and not absolute, but in general they do show how remarkably fast cats age.

Your Cat's Age	Human Equivalent
<b>Kitten</b>	
0 – 1 month	0 – 1 year
2 – 3 months	2 – 4 years
4 months	6 – 8 years
6 months	10 years
<b>Junior</b>	
7 months	12 years
12 months	15 years
18 months	21 years
2 years	24 years
<b>Prime</b>	
3	28
4	32
5	36
6	40
<b>Mature</b>	
7	44
8	48
9	52
10	56
<b>Senior</b>	
11	60
12	64
13	68
14	72
<b>Geriatric</b>	
15	76
16	80
17	84
18	88
19	92
20	96
21	100
22	104
23	108
24	112
25	116

SOURCE: ADAPTED BY PERMISSION FROM THE 2010 AAFP/AAHA FELINE LIFE STAGE GUIDELINES



## X-rays and Ultrasounds

**Purpose:** to supplement information found on physical examination and from laboratory tests.

**Essentials:** Veterinarians often recommend X-rays to evaluate the heart and lungs, or ultrasound to more thoroughly evaluate the abdomen. X-rays also may help determine the causes of lameness.

## Oral Exam

**Purpose:** to check for disease. Eighty percent of cats over three years of age show signs of periodontal disease, often a cause of bad breath. "Professional dental cleaning and periodontal therapy often come too late to prevent extensive disease or to save teeth," the American Veterinary Dental College says, adding that multiple problems in the oral cavity can result and may be associated with damage to internal organs in some patients as they age.

**Essentials:** In addition to disease, veterinarians check for tumors or other problems that can cause pain or make it difficult to eat.

## Vaccinations

**Purpose:** to protect against infectious diseases that may cause illness or even death.

**Essentials:** Senior cats still need the core vaccines given to kittens. One shot guards against rabies, while a combination vaccine protects against respiratory illnesses and feline distemper. Non-core vaccines may be beneficial in some cases, and careful consultation with your veterinarian is recommended to tailor a vaccine protocol for your cat.

## Behavior Screening

**Purpose:** to help determine quality of life and search for clues of overall health.

**Essentials:** Half of cats at age 15 have signs of dementia, such as inappropriate elimination. Have you noticed litter box problems? The veterinarian might ask about litter box size, edge height and location, which may need to change over time to ensure your arthritic cat can easily access the box. According to the "Feline Life Stage Guidelines," litter box problems, vocalization and confusion can be signs of underlying medical problems.

Finally, don't write off subtle changes as simply old age. Chances are that medication, treatment or changes in management at home (i.e., with litter box problems) can go a long way toward making your cat comfortable and perhaps bringing a welcome spring back to his step. You may find yourself wondering: Why didn't I take him to see a veterinarian sooner? ♦

## ANIMAL WELFARE

# A New Emphasis on the Risks of Declawing

The American Veterinary Medical Association has clarified its policy on declawing to stress that the procedure is an amputation of all or part of the cat's distal phalanx — the last bone of each toe — and is not a medically necessary procedure.

While previous policy emphasized the obligation of veterinarians to provide owners with complete education about the procedure, the revision is more pointed. It calls for education about the normal scratching behavior of cats — to stretch, condition claws and mark their territory with scent — as well as the procedure itself and potential risks.

The Humane Society of the U.S. compares declawing to removal of the last knuckle on human hands, adding that the surgery changes the way cats' feet meet the ground, "similar to wearing an uncomfortable pair of shoes."

The surgery, called an onychectomy, has rare but inherent risks, including anesthetic complications, hemorrhage, infec-

tion and pain, the AVMA says. "Declawing of domestic cats should be considered only after attempts have been made to prevent the cat from using its claws destructively or when its clawing presents an above-normal health risk for its owners."

If declawing surgery is performed, the AVMA says the appropriate use of safe, effective anesthetics and pain relievers before, during and after surgery is imperative. It does not recommend tendonec-tomy, an alternative surgery in which the tendon that controls the claw is severed; the claw remains, but the cat can't extend it to scratch.

The association says that cats with claws may pose health risks to people with skin problems, such as the elderly, diabetics, the immuno-compromised and those with circulation problems. It advises that risks be considered on a case-by-case basis.

The American Association of Feline Practitioners and American Animal Hospital Association also oppose

indiscriminate declawing, as does the Cornell Feline Health Center.

Declawing should be considered only as a last resort in cases where a cat's scratching would otherwise necessitate its removal from the home, the FHC says. It adds that "Declawed cats should never be allowed outside, as they are less able to climb trees or defend themselves."

For more information, visit [www.vet.cornell.edu/fhc](http://www.vet.cornell.edu/fhc) or see "The Many Reasons They Love to Scratch" in the December 2013 issue of CatWatch. Among the recommended alternatives to destructive scratching: plastic nail sheaths for paws, climbing posts covered in fabric or sisal, and for cats who prefer horizontal surfaces, corrugated cardboard infused with catnip. ♦



**Alternatives to destructive scratching** include nail sheaths for paws and climbing posts covered in fabric or sisal.

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## DEAF... (continued from cover)

to suffer from inherited congenital deafness caused by a degeneration of the inner ear. It's estimated that between 20 and 50 percent of white cats are affected by at least partial deafness.

This figure rises to 80 percent in white cats with two blue eyes. Those at high risk include breeds with white coats: Persians, Scottish Folds, Ragdolls, Cornish Rexes and Devon Rexes, Oriental shorthairs, Turkish Angoras, Maine Coons and Manx.

The precise reason that white hair and blue eyes are strongly linked to deafness is not fully understood but it is thought to be related to the lack of melanocytes in these cats. Melanocytes produce melanin, the pigment primarily responsible for skin, hair and eye color.

Some white cats might be born deaf in only one ear. If a cat has one blue eye

and is deaf in one ear, the eye and ear will invariably be on the same side of the head. Cats with one deaf ear might act normally to the extent that owners don't notice the problem.

"Most of the current research in this area is reviewing the genetic or inherited forms of deafness," says Amanda Full, DVM, ACVIM, a former resident in neurology at the Cornell University Hospital for Animals, now at Chicago Premier Veterinary Group.

Discerning specific causes of hearing loss is a challenge. One difficulty is in studying the neuroanatomy — the anatomy of the nervous system — because the ear is difficult to preserve for post-mortem research.

**Today's Focus.** "The primary focus today is on early recognition of hearing loss for owners and prevention by

identifying genetically high-risk breeds and testing at a young age for breeders," Dr. Full says.

While deafness can be inherited in cats, most cases are acquired conditions. Among these, otitis externa (inflammation/infection of the external ear canal) is the most common. If left untreated, the infection can progress into the middle and inner ear.

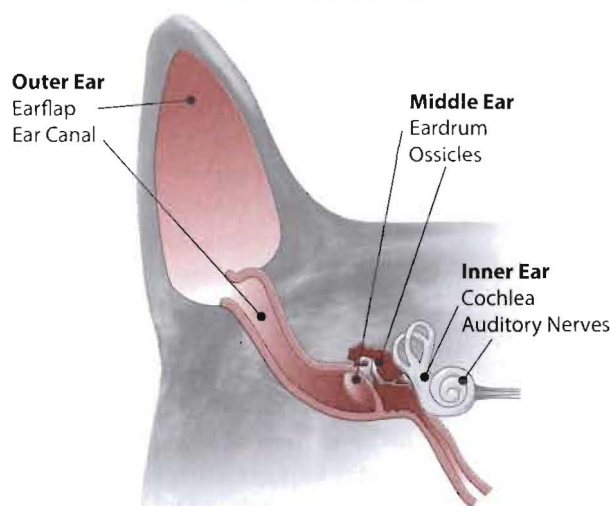
Ear canals can become filled with any number of obstructions that can lead to infection, says dermatologist William H. Miller, Jr., VMD, Medical Director of the Cornell University Hospital for Animals. "If the ear canal is filled with pus, wax or mite debris, sound waves don't reach the eardrum completely or at all," he says. "This decreases the animal's hearing to varying degrees. Some don't hear well, while others are deaf."

### THE ANATOMY OF THE EAR

#### A cat's ear comprises three structural areas:

- ◆ The outer ear consists of the external earflap and the ear canal, where sound vibrations enter from the environment.
- ◆ The middle ear contains the eardrum and the auditory ossicles, which are small bones that transmit the eardrum vibrations to the inner ear.
- ◆ The inner ear contains the cochlea, which houses nerve endings that receive vibrations and pass nervous system signals to the brain.

The Normal Feline Ear



Marty Bee

### LIVING WITH A DEAF CAT

Owners can take simple measures to keep their deaf cat safe and improve their relationship with them:

- ◆ When possible, keep deaf cats indoors to protect them from cars, predators and other threats often detected via auditory cues.
- ◆ Avoid startling your deaf cat. If approaching from behind, clap your hands, stomp your feet or use another means of alerting him to your presence via vibrations. Better yet, try to alert your cat to your presence visually.
- ◆ Attach a bell to his collar so you can find him if he slips outdoors.
- ◆ Train your cat with hand gestures or other visual means to help you communicate with him.



A bell attached to a deaf cat's collar will help you keep track of him indoors and help find him if he slips outdoors.



If ear debris is removed and the infection treated, a cat's hearing can return. But when external ear canal disease becomes chronic, the eardrum can be breached. This can lead to inner ear disease, which usually will result in impaired hearing that can be permanent, Dr. Miller says.

Ear mites in kittens are often another problem. "If those aren't treated, they can persist forever," Dr. Miller says. "Beyond that, ear polyps and allergies are recognized as fairly common causes of ear disease in the cat." In the grand scheme of feline health, however, he adds that the incidence of these conditions is relatively low.

In contrast to inherited congenital deafness, which usually becomes apparent in a cat only weeks after birth, acquired deafness usually develops over time as a result of ear canal disease. "Sudden loss of hearing without pre-existing ear canal disease is rare in animals," Dr. Miller says. "It can be associated with a drug the animal might be taking, but it can also be due to brain disease."

**Drug Exposure.** Ototoxicity — also known as ear poisoning — results from exposure to drugs or chemicals that damage the inner ear or the nerve that sends balance and hearing information from the inner ear to the brain. Certain antibiotics, ear cleaners, household chemicals and chemotherapy drugs can

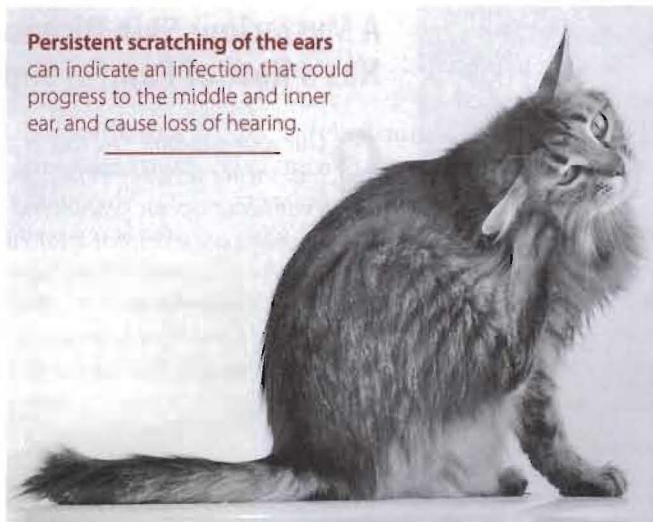
lead to ototoxicity in cats. These toxins might be ingested or seep into the inner ear through a perforated eardrum. Depending on the toxic agent that causes the hearing loss, some effects are reversible. The faster the hearing loss in a cat can be identified and addressed by a veterinarian, the better the prognosis.

Beyond infections and toxins, owners should also keep in mind that a cat's eardrum thickens with age. Hearing difficulties and sometimes even deafness are often found in older cats regardless of whether their ears have been infected.

Deafness in cats can be difficult to detect when it develops gradually, as animals tend to adapt over time to compensate for hearing loss. When deafness follows ear canal disease, owners might also observe symptoms related to that disease, including head shaking, ear scratching and odor emanating from the ear.

**Simple Diagnosis.** If you suspect your cat might be deaf or experiencing difficulties hearing, you should immediately seek veterinary treatment. Diagnosis is relatively easy with a complete physical

**Persistent scratching of the ears** can indicate an infection that could progress to the middle and inner ear, and cause loss of hearing.



examination, Dr. Miller says. "When there is middle ear disease or a suggestion of brain disease, special tests like a CT scan, MRI or brainstem auditory evoked response (BAER) test — which evaluates the brainstem's electrical response to an auditory stimulus — may be indicated. These latter tests need to be done by a specialist."

The BAER test, performed by neurologists, takes only 10 to 15 minutes and often provides definitive diagnosis. Ear plugs or headphones are placed over the cat's head, and clicks or tones are delivered to the ears. Small electrodes placed under the skin measure the brain's electrical response to the auditory stimulus.

No treatment is available for inherited congenital deafness. Most acquired feline ear disorders, including otitis externa, can be treated with medicine. The specific medicine and related cost will depend on the diagnosis.

"In very chronic infections where the eardrum is totally destroyed, the hearing will be lost," Dr. Miller says. "But most cases of external canal disease can be treated and a return to normal hearing can be expected." Again, the earlier ear disease is diagnosed, the better the outcome is likely to be.

Even in cases of permanent hearing loss that cannot be reversed, cats can use their other senses to compensate, and many continue to enjoy a good quality of life. ❖

## THE FIRST STEP IN PREVENTION: CLEANLINESS

What you should know to reduce the chances that your cat could experience a serious ear disorder leading to deafness:

- ◆ Keep his surroundings clean to discourage ear mites and other infectious agents.
- ◆ Regularly check his ears for signs of debris and infection, such as swelling and discharge.
- ◆ If you observe signs of a problem or he's persistently scratching his ears, consult his veterinarian as soon as possible.
- ◆ Don't probe his ears with foreign objects — you might puncture the eardrum or cause other damage.





Elizabeth

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

### PLEASE SHARE YOUR QUESTIONS

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

### COMING UP ...

- ❖
- EXCESSIVE MEOWING
- ❖
- SAFE FOOD INGREDIENTS
- ❖
- FOOD HANDLING SURPRISES
- ❖
- SHELTER NURSERIES FOR AT-RISK KITTENS
- ❖

## A Mysterious Skin Disease Has a Host of Painful Signs

**Q** Our year-old male cat, found at a county animal shelter seven months ago, has been diagnosed with eosinophilic granuloma complex (EGC). His symptoms are incessant scratching, puffy gums, blistering mouth, swollen front paw, lameness, limping. Our veterinarian has prescribed steroids for him, and these have been somewhat helpful, but can you explain this disease so that we can better understand what is going on?

**A** I am very sorry to hear about your kitty's recent diagnosis, as I know how annoying itching can be! I am happy that he is being seen and treated by a veterinarian, as this condition can be complex, and the diagnosis and treatment of EGC can be frustrating. Perhaps a few words about our understanding of this enigmatic syndrome would be helpful.

EGC is a group of well-recognized but poorly understood conditions that account for approximately three percent of all feline skin diseases. To date, no definitive breed, age or gender predispositions have been identified for EGC in domestic cats, although data suggest that Norwegian Forest cats may be predisposed. Common presentations of EGC in cats include reddish, crusty, raised lesions, usually on the on the upper lips (called indolent ulcers), reddish, raised, plaque-like lesions on the abdominal wall or feet (eosinophilic plaques), and ulcerated, nodular, crusty lesions, often on the lower lip, tongue, hard palate, hind limb, or foot pad (eosinophilic granulomas).

Although the location, severity and duration of symptoms of EGC can vary considerably, the majority of cases have a number of things in common. The most consistent feature is the finding of eosinophils, a type of white blood cell involved in allergic reactions, on microscopic examination of the affected region.

The cause of EGC has not been determined definitively, although many researchers and clinicians believe that it is the manifestation of an extreme allergic response to a variety of things, including fleas, mosquitos, mites, plant material embedded in the skin/oral cavity, bacteria, viruses, food or inhaled allergens (like hay fever in

people). Other researchers have suggested that EGC may be a form of autoimmune disease, in which a cat's immune system begins to inappropriately mount an immune response against components of its skin and mucous membranes.

The diagnosis of EGC in cats relies primarily upon the recognition of characteristic lesions and microscopic evaluation of impressions and/or biopsies of the lesions. Since the characteristic accumulation of eosinophils may be due to conditions other than EGC, it is important to rule these other conditions out either by definitive diagnostics or by response to therapy directed at treating them.

Therapy for EGC usually involves the use of either topical or systemic corticosteroids such as prednisolone, dexamethasone or hydrocortisone to minimize inflammation and itching. While often effective in the treatment of feline EGC, systemic steroids can have potentially significant side effects, and it is generally recommended to limit their use to the lowest dosage that achieves a positive response.

Other drugs that inhibit inflammation and/or the immune response, such as chlorambucil, cyclosporine and interferons, may also be used, but these are usually not considered to be the primary treatment of choice. Recently, the use of antibiotic therapy was shown to be effective in the treatment of indolent ulcers and eosinophilic plaques.

The prognosis for feline EGC is usually favorable, although control may be challenging in some cases. Some cats may experience a single bout of EGC, while others may experience a more chronic clinical course. It is important to realize that in some cases, management may require medication combined with elimination/avoidance of potentially inciting agents, such as fleas and/or certain food.

I hope this is helpful, and that you and your kitty are feeling well. Please consult with your veterinarian and/or a veterinary dermatologist for more in-depth information regarding feline EGC, and keep us up to date on how your baby is doing.

—Best regards, Elizabeth ❖



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**Breed, age and gender have not been identified as predispositions for EGC**, although data suggest that Norwegian Forest cats may be predisposed.

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