



# CatWatch

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



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## IN THE NEWS ...

### 'Kitty cams' reveal their hidden world

Two thousand hours of video recorded by "kitty cams" from the National Geographic Society have uncovered the lives of indoor cats who are allowed outdoors. The surprising results that University of Georgia researchers found in tracking 60 cats wearing the lightweight cameras in Athens, Ga.:

- ♦ **44 percent** hunted prey, with 30 percent preying upon lizards, snakes, frogs, chipmunks and the occasional vole. Only 28 percent of them ate prey, however.
- ♦ **85 percent** risked danger by crossing two-lane streets and exploring tight spaces such as storm drains.
- ♦ **Four cats** went into other houses, where families petted and fed them, "basically cheating on their original owners," says lead researcher Kerrie Anne Loyd, a wildlife ecologist. The findings were presented at the Ecological Society of America's annual conference in Portland, Ore. ♦

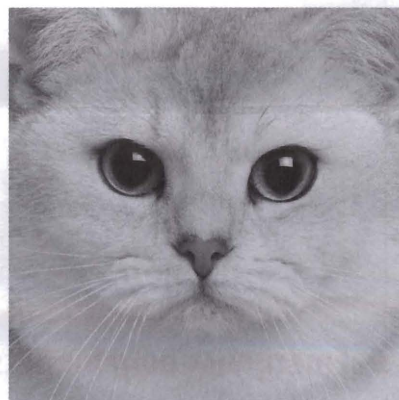
## The Risks of Upper Respiratory Infections

*They're often ultimately harmless, but kittens are especially vulnerable, and secondary diseases can have serious effects*

Signs that your cat has an infection of his upper respiratory tract can mimic the ones you suffer with a cold: watery eyes, runny nose, wheezing, sneezing and coughing. Just as you're likely to rebound in a few days, in most instances a cat will, too.

In some cases, however, bacterial and viral respiratory infections can carry significant risks:

- ♦ Complications such as pneumonia, blindness or chronic breathing problems can develop.
- ♦ Cats can become carriers for two viruses and spread the disease but not show any outward signs of illness.



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- ♦ The infections can be highly communicable in multi-cat households.

Unfortunately, vaccines for respiratory tract infections don't provide total protection, although they can reduce the illness' length and severity. About 80 percent of feline upper respiratory infections are caused by one of two viruses: feline herpesvirus (FHV), also known as

feline rhinotracheitis virus (FRV), and feline calicivirus (FCV). A third and far less frequent cause of upper respiratory infections in cats is the bacteria *Chlamydia felis*.

"All three of these organisms are very specific to cats," says Richard Goldstein,

*(continued on page 6)*

## The mysterious purr eludes translation

*Learning how to interpret their vocalizations can help you understand and meet their needs*

Conventional wisdom has long held that purring is a sign of contentment, a cat purring on a sunny windowsill by the owner's side being a perfect example. However, researchers have found that cats also purr in other, often surprising situations — when giving birth and nursing, when under duress and even when dying.

Learning how to interpret your cat's vocalizations can help you understand and meet his needs, whether he wants to eat, go out or have his litter box changed, says Katherine A. Houpt, VMD, Ph.D., diplomate of the American College of Veterinary Behaviorists and emeritus James Law Professor of Animal Behavior at Cornell University College of Veterinary Medicine.

**Health Benefits?** Complete understanding of purring remains a mystery, though, at least for the time being. Reports of its possible health benefits have surfaced recently in mainstream media, suggesting the behavior might promote increased bone density and the healing of muscles and tendons in cats. The hypothesis goes like this:

Low frequencies — those between 20 and 50 hertz — have been shown to be helpful in pain relief, bone growth and healing muscles and tendons in other animals and people.

Cats' purring registers between 20 to 50 Hz and occasionally up to 150 Hz.

*(continued on page 5)*



# CatWatch

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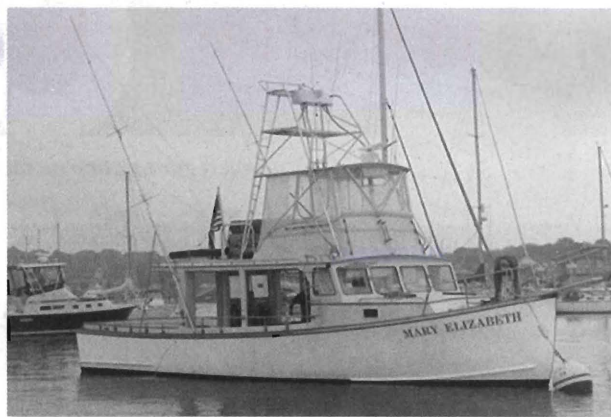
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## SHORT TAKES

### Ocean-going farewells

A sea burial service, begun in Marshfield, Mass., with one boat, now has 48 vessels operating from Maine to Miami and from San Francisco to San Diego. Since he expanded the company in 2007 to include cremated pets, founder Capt. Brad White says his New England Burials at Sea has provided memorials for hundreds of animals. The company, one of a handful in the United States offering the service on both coasts, is billed as the most requested. Its memorials offer the scattering of ashes, sea wreaths or rose petals, and music.

Dispatching cremains into the deep is environmentally safe because of the high temperatures used in cremation, White says, adding — no surprise to pet lovers — mourners typically “cry more about Fluffy and Fido than they do about their grandmothers.”



### Emergency help for pets

When the worst wildfires in Colorado history swept the state, causing thousands of evacuations, the American Humane Association sprang into action. It deployed personnel, volunteers, supplies and its 16-wheel, 82-foot-long Red Star Rescue Rig to help animal victims.

Red Star Rescue Service was a state-approved first-responder, with the rig providing emergency operations, sheltering and care to lost pets. The effort achieved 100 percent success. “During this deployment, we helped 124 animals and reunited every single one of them with their families,” says spokesman Mark Stubis.

The service and the rig — complete with a mobile operating room — have saved more than 64,000 animals in major relief efforts in the past five years. The rig's work in Colorado and in the year to come is made possible in part by a \$200,000 pledge from MarsPetcare US, makers of Pedigree Food for Dogs and Whiskas Food for Cats, among other brands.

### Benefits of pet ownership

Another study has emerged, indicating that dog and cat ownership can protect children from developing asthma. Researchers at the University of California in San Francisco found that bacteria in house

dust from homes with a cat or dog is distinct in composition from homes without pets.

In comparing the homes, researchers say “bacterial community richness was notably increased in all dog-owning and a subset of cat-owning households.” The study is the first step toward identifying the microbial species that offer protection against the asthmagenic pathogen RSV (respiratory syncytial virus), says researcher Kei Fujimura, Ph.D.

RSV, a common infection in infants, can cause mild to severe respiratory symptoms. A severe infection is associated with a higher risk of developing childhood asthma. The disease is highly communicable, spread through droplets containing the virus in a cough or sneeze. It also can live on surfaces, hands and clothing.

The researchers presented their findings at this year's annual meeting of the American Society for Microbiology.

### Warning on stainless bowls

A foreign supplier mistakenly used small quantities of radioactive Cobalt-60 in making certain stainless steel pet food bowls for Petco, the company says. “The affected products were found to emit low levels of radiation.”



Testing of the products indicates there is no health risk to the public, employees and pets, Petco says, adding that U.S. Customs and Border Protection agents discovered the problem during routine screening of a cargo container.

The few customers who bought the bowls between May 31 and June 20 are entitled to refunds, the company says. Product numbers are listed on labels on the bowls: 1047493, 1386956 and 1047477. ♦



# A Deadly Threat to Outdoor Cats

*Hypothermia can cause a drop in blood pressure, a lowered heart rate and the potential for cardiac arrest*



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**Hypothermia's prognosis** depends upon age, physical condition and the ability to regulate body temperature.

Cats whose breed developed in frigid areas of the world are likely to tolerate cold weather better than cats whose origins can be traced to more temperate regions. But even the fattest, furriest Maine coon will have only a slight edge over a trim, thin-coated Siamese when it comes to prolonged exposure to the biting winds, ice, snow and sleet that come with winter.

Indeed, any cat left outside for extended periods of time when the temperature is below freezing — not to mention any poor creature who happens to tumble into an ice-cold pond — will be at risk for a potentially deadly drop in body temperature.

The chances that this condition — called hypothermia — will prove fatal depend largely upon the animal's age, overall physical condition and ability to regulate body temperature, says Gretchen Schoeffler, DVM, DACVECC, chief of emergency and critical care services at the Cornell University Hospital for Animals. The prognosis may be especially poor for kittens, elderly cats and those who have sustained an injury such as a broken limb, she says.

Moreover, certain disease conditions, such as hypothyroidism, can also interfere with a cat's ability to maintain an appro-

priate body temperature or to restore it to normal after it suddenly plummets.

**Mild, Moderate, Severe.** A cat's normal temperature, taken rectally, ranges between 100 and 102 degrees. According to Dr. Schoeffler, hypothermia may be defined as any decrease in body temperature to a level below 100 degrees Fahrenheit. The severity of the condition is ranked in three categories:

- ◆ **Mild** is between 90 and 99 degrees.
- ◆ **Moderate** is between 82 and 90 degrees.
- ◆ **Severe** is lower than 82 degrees.

Most cats can tolerate a temperature drop of five or six degrees (mild hypothermia) for a short period of time without serious or lasting damage. If the decline persists, however, the animal's oxygen requirements will decrease and its blood circulation will decline correspondingly. If untreated, the decreased flow of oxygenated blood will eventually inhibit the cat's metabolic functioning and will result in progressively severe and widespread damage to the tissues of its internal organs.

Meanwhile, his blood pressure will drop, his heart rate will slow, and the cat will be at risk for cardiac arrest. The surface of his skin will be noticeably cold

to the touch. If low body temperature is suspected, the owner should place a bare hand on the animal's groin — the point at which the hind legs meet the torso. If the skin feels cold, the animal's temperature should be taken with a rectal thermometer — a device that all cat owners should have on hand. "In extreme cases," says Dr. Schoeffler, "the temperature may be so low that it won't even register on a standard thermometer."

All cases of suspected hypothermia need prompt treatment, regardless of whether the condition is thought to be mild, moderate or severe.

**Warming Up.** Treatment in all cases of hypothermia entails efforts to warm the cat. If he has very mild hypothermia, he should simply be confined to a warm indoor area and covered loosely with blankets. This will stop further heat loss and allow his body to reheat naturally and gradually. "If the cat is responsive to treatment," Dr. Schoeffler, "this is probably not an emergency situation."

However, if the cat's temperature falls below 97 degrees, rewarming can be considerably more complicated. In general, a cat experiencing significant hypothermia should be wrapped in towels that have been warmed in a clothes dryer, and he should then be rushed to a veterinary clinic, says Dr. Schoeffler.

Any cat experiencing severe hypothermia should receive emergency veterinary care. This is likely to require internal as well as external warming techniques, such as warm water enemas, warm intravenous fluid therapy, oxygen support and constant monitoring of heart rate, blood pressure and respiration. The treatment's success will depend on a wide variety of factors, such as the cat's body temperature at the time that treatment is initiated, the length of time that he has been exposed to frigid temperatures, whether he was wet or dry when the condition was discovered, whether he has lost consciousness and his general health status and ability to heal naturally.

To lessen the risk of hypothermia, owners should avoid allowing their cats to remain outdoors during cold weather, especially at night when temperatures tend to plummet, Dr. Schoeffler says. "By minimizing or carefully supervising your cat's outdoor experience, you are likely to increase his lifespan, giving you more time to enjoy your special feline companion." ♦



# The First Clue: a Persistent Cough

*Wheezing and breathing through the mouth are also hallmarks of asthma and warrant a veterinary visit*

You may be accustomed to hearing your healthy and usually demure cat making hacking noises to try to bring up a hairball. But you'd be wise not to ignore these sounds. They could be an indicator of asthma, an inflammation of the airways that can make breathing difficult. A persistent cough warrants a veterinary exam as soon as possible.

As with humans, the chronic condition is manageable in felines, especially if discovered early. "Once you've ruled out other potential diseases, getting your cat on a therapy plan is very important because of the life-threatening nature of respiratory distress," says Andrea N. Johnston, DVM, DACVIM, a Clinical Instructor in small animal medicine at Cornell University College of Veterinary Medicine.

In addition to the cough — the most common clinical sign of the disease — affected cats will wheeze and breathe through the mouth. An estimated 1 to 5 percent of cats have asthma, the result of an abnormal immune reaction to inhaled allergens. It's typically seen in those 2 to 8 years of age, with Persian and Himalayan breeds particularly predisposed.

Researchers are trying to identify the genes in these breeds — as well as in other cats — that might make them more

susceptible to asthma. Once the genes are identified, the particular mechanism they control that has gone awry can be addressed.

Although it's likely to be many years before genetic research shows practical results, searches for more immediate treatments are under way. For example, a study at the University of Missouri is investigating a potential therapy called allergen-specific immunotherapy (ASIT), which could be delivered as an inoculation — similar to the type of shots that humans get to treat hay fever and other allergies.

Meanwhile, administering steroids and removing environmental triggers have been the usual way to deal with the disease in the long term.

Symptoms of asthma can mimic those of other diseases, from heartworm and pneumonia to cancer. For a definitive diagnosis, Dr. Johnston recommends a chest X-ray, complete blood workup, urinalysis and fecal flotation. In addition, she usually suggests a tracheal wash, which provides a sample of fluids and cells in the lungs, in part to make sure that no bacterial infections are present. "Even though that's rare," she says, "we have to rule it out before we do steroid therapy, because we



The AeroKat Feline Aerosol Chamber, used with an inhaler, delivers medication to the lungs.

are going to immunosuppress the cats to some degree, and we don't want to have an underlying infection at the same time."

**Emergency Treatment.** The treatment your cat's veterinarian will choose depends on the severity and persistence of the symptoms. In emergency situations, when your cat can't catch his breath, he'll need a bronchodilator — a medication that opens up the breathing passages — such as albuterol, often administered through an inhaler.

Maintenance therapy in moderate cases of asthma usually involves medications that reduce airway inflammation or modify the cat's immune response, usually steroids such as fluticasone propionate and prednisone, which can be inhaled or taken orally.

The AeroKat Feline Aerosol Chamber, a cat-sized mask with an inhaler that delivers a metered dose of the prescribed medication, was developed specifically to treat feline respiratory diseases. The cost of the chamber varies from about \$80 to \$100.

Dr. Johnston recommends inhaled steroids whenever possible because they go directly to the lungs, and side effects of long-term systemic usage such as diabetes mellitus can be minimized. "Often cats can be on a higher dose of steroids for a short term and then get on extremely low doses, but they do need to stay on them because we can't knock out the inflammation completely," she says.

Because cats and humans get similar forms of asthma and research is being done on the disease in both species, it's only a question of time before new treatments are found. ♦

## CONTROL THE ENVIRONMENT, CONTROL THE ASTHMA

Andrea N. Johnston, DVM, DACVIM, at Cornell stresses the importance of trying to remove as many allergens as possible from your home to prevent your cat's asthma attacks. Because this is more difficult with indoor/outdoor cats, she suggests keeping them inside to have more control over environmental triggers.

Among the steps to take:

- ◆ **Remove carpeting** or, if that's not an option, avoid carpet deodorizers.
- ◆ **Eliminate perfumes**, air fresheners, hairsprays, aerosol cleaners and, especially, cigarette smoke.
- ◆ **Change filters** in air conditioners and air purifiers often.
- ◆ **Consider a humidifier** when the air is dry.
- ◆ **Avoid dusty** or scented cat litter.



## VOCAL ... (continued from cover)

Therefore, purring must provide “a biomechanical healing mechanism,” proponents say. Intriguing though this theory is, it presents a problem: No scientific studies support it.

“This cat purring question has been buzzing around for a while,” says Clinton T. Rubin, Ph.D., chair of the Department of Biomedical Engineering at New York University at Stony Brook. He published a paper more than a decade ago showing that low-magnitude mechanical signals, induced at high frequency, stimulated bone to grow.

“While we have since been working on this as the basis of a non-drug therapy for osteoporosis, including several clinical trials, others have extrapolated that this mechano-sensitivity of the musculoskeletal system, including the acceleration of healing bones, could reflect a physiologic ‘benefit’ of a cat purring,” Dr. Rubin says.

**Nine Lives Lore.** The signals he uses are vibrations in the realm of a cat purring. “Conceivably — although I know of no one who has actually tested it — a purring cat could be a ‘source’ of such mechanical signals, either to themselves or to those holding a purring cat in their lap,” Dr. Rubin says, adding that perhaps, “It is part of the lore of nine lives of a happy cat.”

The cat who insistently purrs at daybreak to awaken his owner for breakfast may be another matter, according to research that emerged in the spring. This “solicitation” purr has an unpleasant, high-frequency cry or meow “embedded” in it that creates a sense of urgency in owners to comply, say psychologists at the University of Sussex in the U.K.

When they studied human responses to recorded purrs, even people without exposure to cats found the purrs with embedded messages annoying and difficult to ignore. “When the team re-synthesized purrs to remove the

embedded cry ... the urgency ratings for these purrs decreased significantly,” the researchers say.

Meows can also evoke a sense of urgency for food or attention. We know kittens meow to get their mothers’ attention. “From that developmental reason, cats then meow a great deal when they want something from us, their surrogate mothers,” Dr. Houpt says. “It can be a problem.” Siamese and the hybrid breed, the Oriental, are especially adept at vocalizing.

One solution for repetitive meowing: Reply to your cat, Dr. Houpt says. “Make an ‘MMMM’ sound like a low hum, then a soft meow. That’s what the mother would do. It’s comforting.” ♦

## BEYOND PURRS AND MEOWS



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**There’s no mistaking the meaning of a hiss.** It’s a warning to stand back, or clawing or fighting may ensue.

These are the likely translations of popular feline vocalizations:

- ◆ **The chirp used in hunting:** “It’s actually counterproductive because it alerts a bird or mouse to the cat’s presence,” says behaviorist Katherine A. Houpt, VMD, at Cornell. “I think they do it in frustration of a situation because the cat is looking at prey and can’t get to it.”
- ◆ **The caterwaul, a wail you can’t miss:** “Cats caterwaul when hunting and have prey or are looking for prey,” Dr. Houpt says. “Most cats at night will caterwaul and we’re not sure what that means except perhaps, ‘I’m on the prowl.’” Females will caterwaul when in estrus, or heat, and scream after mating when the male withdraws his penis — male cats have barbed penises.
- ◆ **The hiss:** It signals fear, a warning with the possibility of clawing.
- ◆ **Growls and shrieks:** These are aggressive cries of alarm.

## EXCESSIVE VOCALIZING CAN BE A SIGN OF PAIN

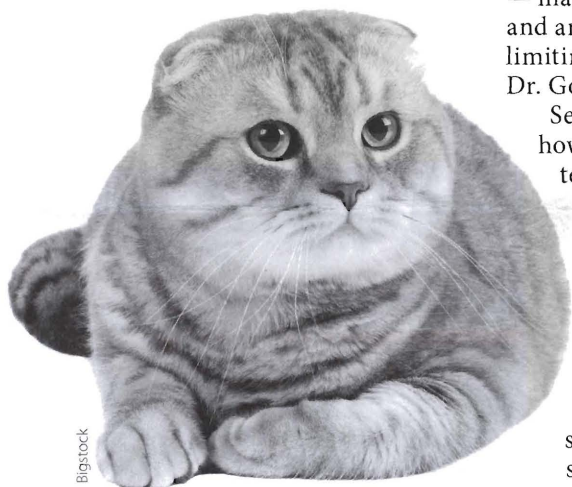
If your cat vocalizes excessively or compulsively, schedule a veterinary visit for a thorough examination. He may be ill, in pain, or suffering from a disease such as hyperthyroidism.

Cognitive dysfunction, the feline equivalent of Alzheimer’s, can cause howling and screeching late at night, possibly due to anxiety. Medication may help if a cat has no underlying medical condition.



## INFECTIONS ... (continued from cover)

DVM, former Associate Professor of Small Animal Medicine at Cornell University College of Veterinary Medicine and currently Chief Medical Officer at the Animal Medical Center in New York City. None of these disease agents is transmissible to humans or dogs.



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The facial anatomy of Scottish Folds, along with Persians and other flat-faced breeds, predisposes them to upper respiratory infections.

Persians and other flat-faced breeds such as Himalayans, British Shorthairs and Scottish Folds have a predisposition to upper respiratory infections because of their facial anatomy.

**Serious Consequences.** The common clinical signs of feline upper respiratory infection — which can affect the nose, sinuses, pharynx and larynx — may vary from very mild to severe and are, in themselves, usually self-limiting and ultimately harmless, says Dr. Goldstein.

Secondary diseases may occur, however, with long-lasting and potentially severe consequences. In addition to pneumonia, these include conjunctivitis or corneal ulcers (a vision-impairing eye condition) and a host of other bacteria- and virus-borne illnesses, resulting from the entry of infectious micro-organism into an afflicted cat's system. The most common results are chronic sinus infections and chronic nasal discharge after an FHV infection.

Moreover, these bacteria and viruses can pass from cat to cat

when they lick or groom one another, or share food and water bowls. They also can become airborne: when sneezing, an infected cat may blow the virus out into the environment, and cats a few feet away may inhale it. The viral secretions on clothing, bedding, toys, litter boxes and floors make the spread of the disease a particular problem to control in animal shelters.

A virus can also be transmitted from an unvaccinated, acutely infected queen to her kittens during pregnancy or through grooming after they are born.

**Ongoing Presence.** Once present in a cat's system, no medication can make the viruses simply disappear. Cats recovered from FCV infection will often continue to shed small amounts of virus from their mouths or nose. In time — perhaps after many months or even years — the calicivirus will vanish.

On the other hand, says Dr. Goldstein, the herpesvirus, once present in the feline system, remains there. Recovered cats will intermittently shed small quantities of virus from their throat or nose. "For the remainder of the animal's life," he says, "the herpesvirus will flare up repeatedly. In cats,

## THE SCHEDULE FOR VACCINATIONS

To significantly reduce the spread of feline upper respiratory infection, Richard Goldstein, DVM, advises owners to make sure their cats are vaccinated according to schedules recommended by their cat's veterinarian. In general, a single vaccine designed to protect against both herpesvirus and calicivirus should be administered when a kitten is between 6 and 8 weeks of age, when the natural immunity they have received through colostrum-rich mother's milk is diminishing.

One or two follow-up shots are then recommended at three- to four-week intervals until a kitten is 16 weeks old, after which a single booster vaccination should be given one year later and every three years thereafter.

A vaccine to protect against the Chlamydia organism is available, although it is not as urgently recommended because these bacterial infections are less common and can be treated with antibiotics.

No vaccine is 100 percent effective, Dr. Goldstein says. Although all existing vaccines are apt to reduce the severity of viral infection, none can be guaranteed to immunize all cats against the organisms that cause upper respiratory disease. Also, he points out, new strains of the calicivirus are continually emerging and, therefore, the efficacy of a current vaccine may diminish.

## WHAT YOU SHOULD KNOW

These are among the signs of feline upper respiratory infection:

- ◆ Coughing
- ◆ Sneezing
- ◆ Drooling
- ◆ Lack of appetite and anorexia
- ◆ Lethargy
- ◆ Depression
- ◆ Fever
- ◆ Ocular and nasal discharge
- ◆ Open-mouth and rapid breathing
- ◆ Squinting or rubbing the eyes
- ◆ A dry mouth, indicating dehydration



these eruptions can be brought on by such things as stress, bad weather, the outbreak of some other illness or medications that suppress the immune system."

For the past several decades, vaccines have been available that, to a great extent, protect cats against herpesvirus. Discuss with your cat's veterinarian a vaccination protocol that will work best for your pet. Vaccines for calicivirus and the Chlamydia bacterium vaccines have, over the years, proven generally successful in significantly reducing the occurrence and severity of feline respiratory infections.

**Threat to Kittens.** However, outbreaks of these infections continue to threaten unvaccinated kittens and the feral cat population. And since the vaccines produce only partial protection, some domestic cats can become ill despite being properly vaccinated, and others may fail to receive their shots according to a recommended schedule.

The infections are generally rarely fatal; nevertheless, they're especially threatening to some cats. "Any cat can become infected at any age," says Dr. Goldstein, "but we see the really severe infections in kittens born to queens who have not been inoculated and are left to fend for themselves in cold wet weather. That's when their resistance is impaired and they are apt to get sick."

The first milk of a queen that has been inoculated against one of the disease-causing viruses — or has been



**Respiratory infections can pass from cat to cat** when they lick or groom one another, or share food and water bowls.

infected naturally in the past — contains colostrum, a substance rich in antibodies that will provide a kitten temporary protection against viral infection. Kittens who for some reason are deprived of that protection tend to get the disease in its severest form. "They can lose their eyes because of ulcers, they may not be able to breathe, and they may die from pneumonia or another secondary infection that goes into their blood," Dr. Goldstein says.

On the other hand, a kitten born to a vaccinated queen and living in a dry, warm environment is unlikely to contract an upper respiratory infec-

tion even if exposed to a viral agent. And even if this kitten does become ill, it will usually be a mild type lasting only a few days. However, this immunity will eventually wear off, at which point a young cat will become susceptible to infection.

**Treating Infection.** Diagnosis is achieved by observing the clinical signs, Dr. Goldstein says. "When you see it, you know it's an upper respiratory problem, but you don't know for sure which virus has caused it or what kind of bacteria are responsible for a secondary infection. So we most often treat the cat symptomatically, giving antibiotics for a secondary infection, and keeping the animal hydrated, fed and comfortable."

In severe cases, a cat might be hospitalized for treatment, including intravenous fluids. If the veterinarian identifies herpesvirus, he may administer an antiviral medication that may shorten the time that the virus is active in some cases. No such treatment exists for the calicivirus. "It just has to go away by itself," Dr. Goldstein says.

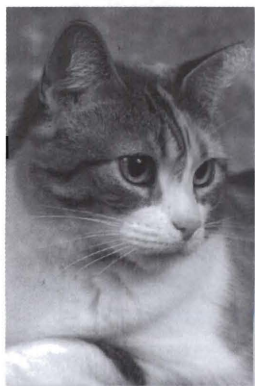
The best way to prevent the disease is to make sure that your cat is vaccinated on schedule and that his environment is clean, dry and warm, Dr. Goldstein says. "This is especially important for kittens. And keep cats of any age indoors as much as possible." ♦

#### FOUR SIMPLE TIPS FOR AT-HOME CARE

If your cat has a respiratory infection, his veterinarian will recommend at-home care appropriate for his case. Veterinarians usually recommend that you:

- ◆ Offer plenty of water to prevent dehydration.
- ◆ Encourage him to eat. Affected cats will often have a diminished sense of smell and disinterest in eating. A flavorful canned food may tempt him.
- ◆ Take him into a steamy bathroom for 10 minutes two or three times a day to help ease his congestion.
- ◆ Use moist tissues to wipe the discharge from his nose and eyes to reduce irritation.





Elizabeth

## PLEASE SHARE YOUR QUESTIONS

We welcome questions on health, medicine and behavior, but regret that we cannot comment on prior diagnoses and specific products.

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## COMING UP ...

❖  
NEW  
GUIDELINES  
FOR FELINE  
CARE

❖  
WALKING  
ON LEASH

❖  
KNEADING

❖  
RINGWORM

**Q** My wonderful rescued cat scratches hot spots occasionally. They look just awful but heal nicely and the hair comes back and fills the spot in. I keep an eye on them for infections, but none has ever become infected. What on earth causes my cat to do this to herself? She's an only cat and there has not been any change in the food I feed her.

Sincerely,  
Hot Under the Fur

**A** Hot spots, otherwise known as acute moist dermatitis, may develop in cats in a number of circumstances. These lesions are usually characterized by loss of hair, redness, swelling, and sometimes oozing. Cats who have them will often chew at these spots aggressively and incessantly. In fact, the trauma induced by chewing or scratching at the spot is the primary cause and perpetuating factor in this often frustrating dermatologic condition, with more chewing causing more damage to the skin, with resultant increased inflammation and irritation, and a motivating factor to chew the area even more.

The initiating factor in cats that develop hot spots is variable. Ectoparasites such as fleas, ticks or mites may irritate your kitty's skin to the point where she will start the vicious cycle of trauma, inflammation, irritation and more chewing and trauma. The bites of other insects, such as mosquitoes, may also begin the vicious cycle that ultimately leads to a hot spot, as can poor grooming that may lead to matting of hair and chewing and licking by the kitty.

Inhalant allergies (also known as atopy) to things like grasses or dust mites, or allergies to an ingredient in your cat's diet may also make her itch, which can make her scratch and chew her skin as well. Importantly, some cats may develop allergies to things (such as food) that they have previously had no problem with. Hot spots may also form when a cat scratches or chews an area of her body because of some problem in that specific spot, as when a cat chews at the base of her tail because of an infected anal gland.

Finally, some cats appear to predispose themselves to hot spots by chewing or scratching incessantly when they are bored or stressed, as

may occur when they are left for long periods of time without enrichment or when the owner moves to a new house.

The prevention of hot spots focuses on removing the inciting cause. The use of appropriate products to prevent flea and tick infestation is important in this regard, as is minimizing exposure to mosquitoes or other biting insects by keeping cats indoors when possible. Cats with inhalant allergies may require antihistamines and/or corticosteroids to stop their itchiness, and allergy shots may be helpful in some cats. Those with food allergies may benefit from dietary modification, most commonly by having the protein source in their food changed. Addressing any other medical issues (i.e., an infected anal gland) that incite the cat to scratch or chew is important.

Cats who chew and scratch because of stress may benefit from behavior modifications that minimize it, such as introducing new cats to a household gradually and carefully, spending dedicated quality time with your kitty to show her that you love and support her, and keeping familiar things in the environment when moving. Bored cats can have their lives perked up by providing toys and spending play time with them. A veterinary behaviorist is an excellent resource to assist with cats who may be stressed or bored.

The treatment of hot spots usually involves shaving the affected area, preventing further trauma (by removing the inciting cause and, in extreme cases, by having the kitty wear an Elizabethan collar), keeping the area dry, and in some cases by applying anti-inflammatory ointments. Antibiotics may be prescribed if the skin is infected. Consultation with your veterinarian and/or a veterinary dermatologist is recommended in dealing with hot spots as early as possible to prevent the vicious cycle from advancing too far.

I hope this information is helpful, and thank you for rescuing and taking such good care of your kitty. Hot spots can be frustrating, but with appropriate care and prevention, they can be cured or considerably minimized in most cases. ❖

Best regards,  
Elizabeth

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