Cat Watch



March 2019 – Vol. 23, No. 3

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

O THIS JUST IN

Great Tree-Climber

This man rescues cats

ccording to the Atlanta Journal-Constitution (AJC), Normer Adams, a retired social worker, is a "treed-cat rescuer on a rampage." He rescues an average of one cat a week from trees. Over the last two years, that's 91 cats. He doesn't charge, and he has a YouTube channel (https://tinyurl.com/cattreerescue) where you can watch him rescue each cat. Some of the cats were in the tree for days. Once he reaches the cat, Adams places the cat in a bag to safely bring him back down the tree.

"During a rescue, Adams arrives on the scene, aims for a sturdy branch above the cats (he doesn't want them climbing higher than him) and uses a tall slingshot to launch a beanbag with attached rope to the preferred spot. He then tugs the climbing rope over the branch and ties one end to the bottom of the tree. Then he scurries up with the help of knee and foot ascenders, contraptions that

basically allow you to 'walk' up a hanging rope in midair," reported AJC.com. Tree climbing is a growing sport. Learn more about it at treeclimbing. com.



INSIDE THIS ISSUE

Implement a Simple, Safe Feline Diet	2
Can't Wait for an Ask Elizabeth Reply?	2
Mammary Cancer Often Spreads	3
When Is It Time to Go to the ER?	4
Bloodwork for Liver Problems	5
Why Do Cats Eat Grass?	6
Normal vs Excessive Shedding	7
When Your Cat Demands Attention	8
Happening Now	8

Catnip May Help With Cancer Drugs

The process by which catnip produces the chemical that makes cats crazy may help develop cancer meds

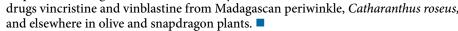
esearchers at John Innes Centre in Norwich, England, have learned how catnip produces the chemical that sends cats into a state of wanton abandon, and this information may apply to developing cancer treatments.

"We have made significant progress in understanding how catnip makes nepetalactones, the chemicals that makes cats crazy. Catnip is performing unusual and unique chemical processes, and we plan to use these to help us create compounds that can be used in the treatment of diseases such as cancer," says study

lead author Dr. Benjamin Lichman, who is now a lecturer at the University of York.

The researchers believe that understanding the production of these nepetalactones could help them recreate the way that plants synthesize other chemicals like vinblastine, which is used for chemotherapy. This could lead to the ability to create these useful medicines more efficiently and more quickly.

Usually in plants, terpenes are formed by a single enzyme. In their paper published in *Nature Chemical Biology*, the researchers report that, in catnip, terpenes are formed in a two-step process: An enzyme activates a precursor compound that is then modified by a second enzyme to produce the substance of interest. The researchers suspect something similar occurs in the synthesis of anti-cancer

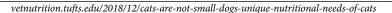


Lichman, BR, et al. Uncoupled activation and cyclization in catmint reductive terpenoid biosynthesis. Nature Chemical Biology, 2018; 15 (1): 71 DOI: 10.1038/s41589-018-0185-2 (Science Daily release)

Feline Food Facts You Need to Know

Diets must include nutrients that a cat cannot get elsewhere

- Cats are obligate carnivores. They need meat protein in their diet. Vegetarian diets are not safe for cats.
- Arginine is an amino acid. Cats naturally lack the enzyme to create the arginine so they need to have it in their diet. Meat is an excellent source.
- A lack of dietary taurine can lead to vision and heart conditions. Cat foods are supplemented with taurine to provide necessary levels for healthy cats.
- Cats need vitamin A and the animal form of vitamin D (D3) in their diet as they are not capable of efficiently producing enough of these important vitamins on their own. Cats also require niacin, or vitamin B3, in their diet to have adequate amounts for good health.
- Dog food lacks essential nutrients for cats. Do not feed your cat dog food or she will develop some serious and potentially life-threatening deficiencies.



Implement a Simple, Safe Feline Diet

Study shows it can be a simple reduction in food

martBrief tells us that "Overweight, sedentary cats will lose weight if the size of their daily meals is gradually reduced, according to research published in the *American Journal of Veterinary Research*, and although there was no statistically significant change in activity, it's possible some cats will become more active as the weight comes off." The report says, "The researchers reduced the cats' food consumption by 20 percent initially, then continued with regular reductions, and the cats in the study lost weight and experienced changes in their gastrointestinal bacteria."

The guidelines we shared from the American Association of Feline Practitioners in our January 2019 issue (catwatchnewsletter.com) offer ways to make your cat's mealtimes more natural, including "hunting" for food, which can help with both exercise and behavioral problems.

According to a report in Pet Product News, Nationwide pet insurance states that pet obesity has risen 24 percent over the last eight years. Nearly a fifth of Nationwide pet insurance claims in 2017 were related to pet obesity—equaling a sum of more than \$69 million in veterinary expenses.

According to Nationwide, the top 10 conditions related to or made worse by obesity are:

- ▶ Bladder/urinary tract disease
- ► Chronic kidney (renal) disease
- **▶** Diabetes
- Asthma
- ▶ Liver disease
- Arthritis
- High blood pressure
- ▶ Heart failure
- ► Gall bladder disorder
- ► Immobility of spine



Can't Wait for an Ask Elizabeth Reply?

You can try Cornell's Camuti Consultation Service

ur Elizabeth loves answering reader questions in her column every month, but she wants to be sure you know that Cornell's Camuti Consultation Service also can help you out. The service puts you in contact with a Cornell veterinary consultant who will discuss your cat's condition and/or care with you.

Of course, just as Elizabeth reminds us each month, the service cannot diagnose or treat a disease because the consultants don't have direct access to your cat. Instead, the service is a source of information and support for cat owners and can provide you with current, comprehensive information that you can use to discuss your cat with your own veterinarian. Calls are returned within 48 hours. Fees range from \$44 to \$115, depending upon the topic.

Visit https://www.vet.cornell.edu/departments-centers-and-institutes/cornell-feline-health-center/health-information/camuti-consultation-service for more information.

Elizabeth wants you to know that the Dr. Louis J. Camuti Memorial Feline

Consultation Service was established to honor the memory of the late Dr. Louis J. Camuti. Known affectionately to many as "The Cat Doctor," Dr. Camuti was the first veterinarian in the United States to devote his entire practice to cats, making house calls for his feline patients for more than 60 years.

Since his death in 1981, friends have sought to honor his lifework through the Dr. Louis J. Camuti Memorial Endowment

Fund, which continues his tradition of compassion, dedication, and a pioneering professional commitment to the health and well-being of cats. ■



EDITOR IN CHIEF

Bruce G. Kornreich, DVM, Ph.D., Dipl ACVIM

EXECUTIVE EDITOR

Cynthia Foley

TECHNICAL EDITOR

Debra M. Eldredge, DVM

ADVISORY BOARD

James A. Flanders, DVM, Dipl ACVS, Associate Professor, Clinical Sciences

> Margaret C. McEntee, DVM, Dipl ACVIM, DACVR, Professor of Oncology

William H. Miller, Jr., VMD, Dipl ACVD, Professor, Clinical Sciences

> Pamela J. Perry, DVM, Ph.D. Lecturer, Clinical Sciences, ACVB Behavior Resident

CatWatch is an independent newsletter produced in collaboration with the Cornell College of Veterinary Medicine Feline Health Center



Cornell University College of Veterinary Medicine Feline Health Center

For information on your cat's health, visit the Cornell University College of Veterinary Medicine, Cornell Feline Health Center website at www.vet.cornell.edu/fhc/.

Send Ask Elizabeth questions and letters to the editor:

CatWatch* 535 Connecticut Ave. Norwalk, CT 06854-1713 catwatcheditor@cornell.edu

Subscriptions: \$39 per year (U.S.) • \$49 per year (Canada). For subscription and customer service information, visit www.catwatchnewsletter.com/cs or write to: CatWatch, P.O. Box 8535, Big Sandy, TX 75755-8535. **800-829-8893**



CatWatch* (ISSN: 1095-9092) is published monthly for \$39 per year by Belvoir Media Group, LLC, 535 Connecticut Ave., Norwalk, CT 06854-1713. Robert Englander, Chairman and CEO; Timothy H. Cole, Executive Vice President, Editorial

Director; Philip L. Penny, Chief Operating Officer; Greg King, Executive Vice President, Marketing Director; Ron Goldberg, Chief Financial Officer; Tom Canfield, Vice President, Circulation. ©2019 Belvoir Media Group, LLC.

Postmaster: Send address corrections to CatWatch, P.O. Box 8535, Big Sandy, TX 75755-8535.

Express written permission is required to reproduce, in any manner, the contents of this issue, either in full or in part. For more information: Permissions, CatWatch, 535 Connecticut Ave., Norwalk, Connecticut 06854-1713.



Mammary Cancer Often Spreads

A lump requires immediate veterinary action

mammary tumor, aka "breast cancer," is the third most common type of cancer in cats. Generally, mammary cancer is found in cats 10 years of age and over and usually in females. However, Siamese and Persian cats have a higher risk compared to other breeds and may develop tumors at an earlier age.

Over 85 percent of mammary lumps in cats are malignant. These are often adenocarcinomas, which tend to spread. About 25 percent of cats show metastasis (spread) to local lymph nodes at the time of diagnosis. Although cancer can spread to any organ, in cats, the most common site of metastasis is the lungs. Affected cats may show difficulty

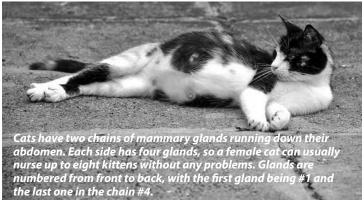
Spaying

breathing and weight loss.

Spaying reduces the risk of a cat developing mammary cancer. If you spay your cat before 6 months of age (before her first heat) you reduce her risk by about 90 percent. Spaying before a year of age, but after a heat period, lowers the risk to about 85 percent. Spaying after 2 years old has little influence on the risk.



Cat estrus or heat periods are influenced by temperature and day length. A cat may be in "full heat" for a day or for a week. If she is not bred, she will then recycle back in one to two weeks. Signs of heat include: Excessive rubbing, meowing, restlessness, attempts to "escape," and licking the genital area.



While the differences are dramatic, they make sense when you understand the influence of hormones. During a heat, the hormones estrogen and progesterone cause the epithelial cells of the mammary glands to enlarge in preparation for nursing. It's believed that, with no pregnancy and therefore no need for lactation, these cells continue to enlarge, possibly to a pre-cancerous state (remember, cancer is out-ofcontrol, abnormal growth). Adding to the problem, cats are seasonally polyestrous, which means they cycle almost continuously during the breeding season (January until November).

Signs of Cancer

Mammary cancer is usually found when you're petting your cat. It may be just a single lump, or it could be multiple lumps along the mammary chain. The individual mammary glands are connected via lymphatic and blood vessels, so there is the possibility of spread along the mammary chain via these vessels. The first and last glands in a chain have a slightly higher risk of cancer than the middle two glands.

Initially, lumps may be about the size of a BB pellet. They are not painful and are usually associated with the nipples. Any lump in this area should be evaluated by your veterinarian. Early diagnosis substantially improves the prognosis. If the cancer has progressed, ulcerated areas may be visible.

Diagnosis and Treatment

Most veterinarians begin with a full examination, bloodwork, and chest radiographs (x-rays) to check for metastasis. After weighing the results, the next option is often a lumpectomy, which is surgically removing the lump and sending the sample for a biopsy.

If surgery is a concern, a needle biopsy (removing only some cells from the lump) may be done. In the biopsy, a pathologist examines the removed tissues, looking for signs of metastasis. If the margins (outer edges) of the removed tissue are not "clean," i.e. free from cancer cells, a more drastic surgery may be required to remove an extra margin of tissue.

The best surgical option to treat feline mammary adenocarcinoma is a radical mastectomy, in which all

the mammary glands in one chain are removed. The tissue that is removed is then microscopically evaluated by a pathologist. Several studies suggest that the use of chemotherapy in combination with surgery improves prognosis and often provides relief from discomfort. Palliative radiation therapy may provide some relief from discomfort.

Prognosis

Prognosis depends upon any metastasis and the size of the original mass. For tumors less than two centimeters in diameter (about ¾ of an inch), survival is normally three years or more. Cats with masses larger than three centimeters have expected survival times of four to six months. If obvious metastatic disease is found at the time of diagnosis, such as masses present on radiographs in the lungs, the prognosis is grave. Surgery is not recommended in these cases.

Although systemic chemotherapy has not been well studied in cats, available research shows some benefit with increased survival times.

Benign Mammary Lumps

Drastically enlarged mammary glands in young cats or older kittens may be mammary fibroepithelial hyperplasia. While unusual, this benign condition tends to appear suddenly and affect all glands at once. Some young cats show this simply from their repeated cycling while others have received progestin therapy. To cure this condition, the cat should be spayed and progestin treatment discontinued, if being used.

When Is It Time to Go to the ER?

They're expensive and have veterinarians you don't always know, and yet they're a godsend for saving lives

e're all grateful for veterinary emergency clinics, but we'd all rather avoid visiting one. They can be costly and frequently busy, just like any emergency room. Still, it is important to have the contact information for your local emergency/after-hours veterinary clinic at hand, so that if your feline needs rapid medical attention, you have a plan. These clinics are, quite literally, lifesavers.

It can be challenging to know when to obtain emergency care for your cat. One feline mechanism of dealing with illness is hiding. It's a vague sign, though, as cats also hide when they are stressed. If your cat is spending more time than usual under the bed, it might be time for a veterinary visit. But is it an emergency? Obvious instances of heavy bleeding, trauma, or non-responsiveness are clear, but otherwise, cats can be tricky.

Respiratory Problems

Difficulty breathing is an emergency. Cats can manifest this in several ways. They may be reluctant to lie down and may sit in the typical "Sphinx" position. Sometimes, they will hold their elbows out away from their bodies to improve chest expansion (this is called orthopnea) or breathe with their mouths open. A cat should never use its abdominal muscles to breathe, so if you see the abdomen moving in and out with breaths, this is a sign of distress. Do not wait to seek medical attention if your general practice veterinarian is not open. This requires immediate assessment.



Immediate emergency treatment may make both you and your cat feel better.

Respiratory distress should not be confused with sneezing and congestion, which are typical in feline upper respiratory tract infections. These symptoms are rarely an emergency. If your cat is eating, drinking, and otherwise seems OK, waiting for your veterinarian is likely fine, but a call to your veterinarian to make sure can't hurt.

Urinary Difficulty

Any signs of urinary difficulty should prompt an immediate examination. Often urinary problems are cystitis, an inflammatory condition of the bladder, or a urinary tract infection. In some instances, however, they can indicate

bladder obstruction, especially in male cats. The signs are usually multiple trips to the litterbox, straining in the box or lying down, bloody urine, producing only small drops, or excessive vocalization while urinating. These clinical signs signal an emergency.

Poison Patrol

Known ingestion of a toxic substance is an emergency. Many medications, plants, and chemicals pose an immediate threat to feline health. Any time that you suspect your cat has ingested a poisonous material, do not wait to get treatment.

Well-known toxins for cats include lilies, antifreeze, and acetaminophen. With an unknown substance, consulting a poison control hotline such the ASPCA's poison help line (888-426-4435), the Pet Poison Helpline (855-764-7661), or an emergency veterinary clinic by phone are good options.

Injury

Trauma is an emergency, even if there is no obvious external injury. Cats are stoic, and even though injuries may not be outwardly visible, internal injury is possible. This is particularly true of falls from even a few feet or being hit by a car. Internal injuries can sometimes take several hours to two or three days to manifest. Don't wait for that. When in doubt, a physical examination is always the most prudent course of action.

Lameness

Limping is not always an emergency, except with severe pain, crying out, or not using or dragging a limb. If a cat is weight-bearing but limping, there's pain, but it may be able to wait until regular hours. If your cat seems otherwise comfortable and can walk, it is generally safe to wait for your general veterinarian. However, do not administer any overthe-counter medications, as very few are safe for felines.

Decisions

In general, if your cat is eating, drinking, and acting normally, you can wait for an appointment with your regular veterinarian. In cases where a cat stops eating and drinking, begins hiding, exhibits signs of pain or distress, is profoundly lethargic or collapsing, is experiencing seizure-like activity, or has protracted vomiting or diarrhea, do not wait to have them evaluated. When in doubt, sooner is always better.

Payment Problems

Emergency care is more expensive than regular veterinary care, and it's not just the initial evaluation (office call). Costs escalate quickly due to the intensity of diagnostics, monitoring, and treatment required (two to three times the cost of regular care, according to pet insurer Healthy Paws).



Even if your cat is insured for veterinary care, most clinics require payment upfront, leaving you to be reimbursed by the insurance company. Do not be surprised if you're asked to leave a deposit or billable credit card before your cat is seen.

If this could be a problem for you, it may be wise to either dedicate an empty credit card or funded savings account to pet care, or apply in advance for a "medical credit card," which is a credit card that usually offers deferred or low interest for medical expenses, which may include veterinary fees.

Bloodwork for Liver Problems

Interpretation of these tests provides your veterinarian with important diagnostic information

iver (hepatic) diseases are common in cats, especially seniors. While clinical signs and symptoms are important (is your cat drinking more than usual or not eating?), bloodwork is the backbone of diagnosis. Usually, this will be several tests grouped as a small-animal liver (hepatic) function panel.

Your veterinarian will look at the blood results in conjunction with clinical evaluations and possibly radiographs, ultrasounds, or a biopsy.

In this article, we look at tests typically included in the bloodwork to understand what the results may mean in regard to your cat's liver health.

Albumin is a protein made in the liver that acts as a carrier molecule for other substances, such as bilirubin. With chronic liver disease, especially if liver function has reduced to less than 75 to 80 percent, the liver cannot manufacture normal amounts of albumin. Low albumin levels also can result from malnutrition, gastrointestinal (GI) tract diseases, and kidney disease. Albumin concentration may increase if your cat is dehydrated.

AST (aspartate aminotransferase) is an enzyme found in the liver and in muscles. While elevated levels may indicate liver damage, increased AST also may be seen with hyperthyroidism, muscle trauma, and granulomatous hepatitis, which may occur secondary to feline infectious peritonitis (FIP). AST is rarely run without ALT, due to the importance of the AST-ALT ratio, which can help your veterinarian determine if liver injury or disease is the cause. With liver damage, AST often continues to rise.

ALT (alanine aminotransferase), another enzyme, may spike in the event of a liver injury, although it can rise with liver disease and/or the presence of certain toxins, such as tetracycline or acetaminophen. As with AST, ALT may increase in cats with hyperthyroidism.

Glucose is the main energy source for the cells in your cat's body. While the body obtains much of its glucose through the breakdown of dietary carbohydrates, glucose is also made in the liver. Low levels of blood glucose may indicate severe liver damage.



A common symptom of liver diseases is jaundice, a yellowing of the gums, whites of the eyes, and skin.

Urea is a waste product of protein being metabolized by the liver. Urea formation decreases with some liver diseases (portosystemic shunts, synthetic liver failure) and with liver damage. Since urea is excreted via the kidneys, an abnormal level could indicate either liver or renal (kidney) disease.

ALP (alkaline phosphatase) is a liver enzyme associated with bone growth in young cats and kittens. Recently pregnant cats also may have an increased ALP. However, in normal adult cats, a high ALP may indicate liver damage or disease. Hepatic lipidosis (fatty liver) can lead to high levels of this enzyme in cats, as can hyperthyroidism.

GGT (γ-glutamyl transferase) is similar to ALP. What sets this enzyme apart, though, is that it is considered highly accurate for pinpointing the liver as the cause of disease in cats, except with hepatic lipidosis (see ALP). Beyond that, GGT is not well understood, widely believed to be involved in metabolizing amino acids.

T bilirubin elevation can be an indicator of liver disease. Bilirubin is formed in the liver through the breakdown of hemoglobin in the blood and myoglobin from muscles. A T bilirubin test measures any bilirubin

found in the blood. Jaundice is often associated with high levels of bilirubin. Diseases that a high total bilirubin may indicate include hepatic lipidosis, lymphoma, pancreatitis, parasites, and bile-flow obstruction.

Cholesterol is produced by the liver from components in the diet. Cholesterol levels can indicate problems with hepatic function, gastrointestinal disease, or some metabolic disorders. Cholesterol is normally excreted via bile, so any problem that interferes with bile processing can cause increased cholesterol in cats. Cats with multiple myeloma, other cancers, and protein losing enteropathies can have low cholesterol counts.

Bile acids are made by the liver from cholesterol and excreted via bile. Bile acid levels are generally evaluated to look at possible portosystemic shunts, which occur as abnormal vasculature between the intestines and the liver. With these shunts, nutrients get shunted around the liver and avoid processing. Bile acid values are not generally included in liver screening as they require a set pattern for feeding, then testing, and most blood chemistries rely on fasted samples.

Symptoms of Liver Disease

- **▶** Jaundice
- Ascites (accumulation of abdominal fluid)
- ► Abdominal pain
- ► Spontaneous bleeding (stomach, intestines, urine)
- ► Increased thirst
- Weakness
- **▶** Lethargy
- **▶** Weight loss
- ► Lack of appetite
- ► Head pressing
- **▶** Seizures
- Vomiting
- Diarrhea

Why Do Cats Eat Grass?

Urban legend is that cats eat grass when they feel sick to induce vomiting

enjamin L. Hart, DVM, PhD, at the School of Veterinary Medicine at the University of California at Davis, conducted a series of surveys with dog owners on grass-eating behaviors and published an article in the December 2008 Veterinary Medicine. He found that most dogs do not show signs of illness before eating grass and that only 22 percent vomited afterward. As for cats, Dr. Hart said that, "Cats typically do not appear to be ill before eating plants nor do they regularly vomit afterward."

One theory behind feline grass-eating is that the plants make it easier for cats to vomit up things that are not easily digested, such as hairballs and bits of bone from prey. The grass irritates the stomach, triggering vomiting.

Plant material has been found in the stomach contents of wild felines, such as cougars. This could be due to intentionally eating grass or from the food that their prey had been eating. Wild cats also have been observed eating grass, including after consuming prey.

Combat Constipation

Cats lack the enzymes needed to properly digest plant materials, so grasses that get past the stomach usually go through the gastrointestinal tract intact. Some veterinarians recommend growing some grass as a snack at home for cats with chronic constipation issues.

Plants and Grasses Safe for Cats to Eat

- ► Commercial "cat grass" growing kits
- Catmint
- Catnip
- Lettuce
- Oat grass
- Parsley
- Rye grass
- Wheat grass



Cats seem to simply enjoy a bite of grass now and then. For inside-only cats, you can grow grass inside.

Behavioral Issue

Plant eating can be a behavioral issue due to curiosity or boredom, or something more involved, such as a compulsive disorder or a displacement behavior in response to anxiety.

If you think your cat is snacking on grass or other houseplants because he is bored, try introducing some new toys or a cat tree for him to interact with and make a point of working playtime into your daily routine. You also can break his meals into smaller portions that are hidden throughout the house either in bowls or in cat toys. Mental stimulation and physical activity will keep him occupied, which will cut down on undesirable behaviors.

Excessive munching on grass or houseplants, especially if it is a particular plant that the cat keeps coming back to, may be a compulsive behavior. See "When Cats Get a Little Crazy," September 2018, at catwatchnewsletter.

com.

Stressful situations such as moving, renovations, or adding a new pet can cause your cat to behave abnormally. Chewing releases endorphins, so your anxious cat may chew on plants to make himself feel better. Try to address the cause of your cat's anxiety,

and in the meantime, move the plant to a location that he can't access.

They Just Like It!

Many cats just enjoy grass and plants. "If your cat craves vegetable matter in her diet, you can provide alternatives, such as oat grass, catnip, and catmint, although she may still continue to snack on houseplants. You can also try adding lettuce or parsley to her food bowl or switching to a cat food with a higher fiber content, advises the Cornell Feline Health Center. Most pet stores now sell grassgrowing kits for at-home use.

Toxicity Risks

Many common houseplants are toxic to cats, including but not limited to lilies, poinsettia, hibiscus, tulips, and ficus. For a complete listing, see the ASPCA's lists of toxic and non-toxic plants at: aspca. org/pet-care/animal-poison-control/cats-plant-list.

You can make houseplants less appealing by using a pet repellent or by wetting the plant leaves and sprinkling cayenne pepper on them. Alternatively, advises the Feline Health Center, a tower of unbreakable, light cups booby trap may be placed around the pot to startle your cat when she begins to chew.

Many pesticides and herbicides are harmful to your cat, so avoid bringing in greenery from unknown lawns as a snack for your cat. If you walk your cat, prevent him from eating grass away from home, as you don't know if it has been sprayed.

If you know or suspect that your cat has eaten a toxic plant or are concerned about pesticide/herbicide exposure, call your veterinarian and/or a pet poison helpline immediately to determine the best course of action for your situation. Exact treatment may vary depending on the particular plant consumed or the chemical that was used on the lawn.

Foreign Body Potential

Cats sometimes get blades of grass lodged in their nasal passages, either from inhaling the grass directly or from it going the wrong way during swallowing and working its way up over the soft palate. The cat may have discharge from one or both nostrils, sneeze, swallow repeatedly, or snore. This is less common than upper respiratory infections but is a possibility if either you know that your cat has been eating and/or playing in grass a lot lately or if respiratory signs are persisting even after treatment.





Normal vs Excessive Shedding

Localized bald spots are a cause for concern

hedding is a normal part of life for mammals—old hairs fall out, allowing new hair to grow in. "Animals shed year-round with typically two heavy periods in spring and fall—building up and getting rid of a winter coat," says William Miller, VMD, DACVD, Dermatology Section Chief at the Cornell University School of Veterinary Medicine. During these times of the year, it may seem like there is more hair on the floor than on the cat.

But sometimes shedding and coat quality can be indicators of illness, stress, or other problems. Watch for changes in shedding cycles, coat quality and texture, and localized areas of hair loss.

"Normal shedding is a whole body event not restricted to one small area or a region of the body," says Dr. Miller. "If you run a comb over the normally shedding cat's body you collect hairs from all over the body and not just one area. Normal shedding does not leave bald spots or sparsely haired areas on the cat's body." Patches of very thin or missing hair are a cause for concern.

Changes in Shedding Cycles

"Seasonal shedding can be influenced by the local climate, whether the cat is strictly an indoor cat, and the owner's lifestyle," says Dr. Miller. "If the owner is a night owl in a home where the light bulbs approach the frequency of natural sunlight, the natural shedding pattern will be disrupted."

Cats living in homes that don't follow the natural daylight patterns of the seasons may not shed at the usual points in the year. This can explain atypical shedding patterns, especially if you have just switched to a more nocturnal lifestyle or moved to a house that is brighter



throughout the evening and night.

Stress can cause excessive shedding. "Nervous animals will shed more than your happy-go-lucky cat," says Dr. Miller. Cats are notorious for shedding copious amounts of hair in veterinary exam rooms and may shed during other stressful events such as thunderstorms, travel, or after a move. While this hair loss does indicate that your cat is anxious, it is not problematic as long as it stops once your cat is comfortable again.

Changes in Coat Quality

Be wary if your cat's normally shiny, silky coat looks dull or greasy. "If the apparent normal shedding leaves the cat with a horrible coat then it's not normal shedding but an indication of internal or external disease," Dr. Miller warns. Hormonal changes and/or nutritional imbalances can be the cause.

Senior cats may stop grooming because they don't feel well due to illness or because arthritis prevents them from bending easily. Obesity will impede normal grooming. If not addressed, this ungroomed hair can form mats that become painful. Mats should be clipped, and the cat should be groomed daily or kept shaved to prevent more mats from forming while any underlying issues are being treated. Once the cat begins to feel better, she usually resumes normal grooming behaviors.

Diet and Coat Health

What you feed your cat matters, but it doesn't have to be pricey food. "In my opinion, a healthy cat eating a good quality food (most grocerystore foods are good quality) needs no supplements because the food has all the ingredients in the correct proportions," says Dr. Miller. "The cat's fatty acid metabolism is special so fat content is important. Fortunately, those ingredients are inexpensive, so they rarely are too low. When one wanders off into the very cheap foods or the bizarre exotic ones that may or may not be true."

Supplementation can be necessary if your cat has a health condition or requires a special diet. Dr. Miller says, "If the cat has allergies, supplementation with omega-3 and omega-6 fatty acid supplements can be beneficial."

Common Causes of Excessive Shedding

- ► Flea infestation: bald spots often appear on the cat's rear end
- Mange: a mite infestation, typically starting over the head and ears, and can spread to the rest of the body
- Ringworm or other fungal infections: round areas of hair loss that can occur anywhere on the body
- Flea allergy dermatitis: hair loss and red, angry skin, usually on the rear of the cat
- Allergies (environmental or food): can be anywhere on the body, with paws and legs being a common site
- Bacterial infection: can occur anywhere on the body
- Cushing's disease: symmetrical hair loss and thinning hair and skin
- Having kittens: queens may have recently had a litter also go through a dramatic shed
- Systemic disease: thyroid disease, irritable bowel disease (IBD), kidney failure, Cushing's disease, cancer
- Spaying, neutering: due to hormonal changes
- Baths: if use you use a shampoo not formulated for cats, it may dry out or irritate the skin and cause shedding and hair loss

Feline Members of Hair Bands

The American Shorthair, Maine Coon, Persian, and Russian Blue have a reputation for shedding more than other cats.

Medication Side Effects

"As a rule, drugs, other than hormones, don't cause hair loss," says Dr. Miller. "Glucocorticoid steroids are the drugs most likely to cause hair loss if used at high doses for long periods."

When Your Cat Demands Attention

The trick is to work with your cat, recognizing that he just wants your company

My cat is driving me crazy. I love him, but he won't leave me alone, even in the middle of the night. If

I'm sitting, he'll be in my lap, walking around it, kneading my legs, meowing. Sometimes, he'll just meow wherever he is until I respond to him. My veterinarian said that he's healthy, so I know it's not a pain issue. I think he's bored. Maybe lonely. What can I do to decrease this increasingly annoying behavior?

Demanding attention is one of the most frequent frustrations owners mention about cats (after urinating outside the litterbox and cat aggression).

In addition to constant meowing, cats have a variety of effective methods for getting an owner's attention:

- Always being wherever their person is
- Standing between the person and whatever is getting the attention
- Rubbing on a person's legs
- Sitting on a book being read
- Jumping up as soon as the owner sits
- ▶ Nipping or patting arms for attention
- ► Pacing or circling
 First see if you can find out what



is triggering the demanding behavior. Cats like routine, so if you're late serving dinner, cleaning the litterbox, or going to bed, they will let you know. And, yes, they have an internal clock. They're most active around sunrise and sunset.

Some cats feel vulnerable when they're eating, because they can't take their bowl to what they would consider a safe hiding spot. They want you to stay close during mealtime.

I'm glad you had your kitty checked by your veterinarian because health problems can cause insistent behavior. Hyperthyroidism, which is common in cats, can cause hyperactivity. An injury may be causing subtle pain. Any sudden change in behavior should trigger a checkup with your veterinarian.

If the cause isn't physical, it comes down to training. You can try these steps:

Time Out. Consider putting your cat in a safe room. Cats can meow for a long time (it doesn't take much effort). Be sure his nails are clipped and he has a spot for sleeping, food, and water.

Make Play Time. A five- or 10-minute daily play session can go a long way toward making your cat feel better. Use a laser pointer (never let it shine in his eyes), a feather wand toy, a catnip toy, or just crinkle paper up that you can toss down a hallway or stairs for your cat to play and hunt.

Stay in the Area When He Eats.
Remember, cats feel vulnerable lowering their heads into their bowls to eat.

Feed the Nighttime Meal Later in the Evening. You don't have to feed at 5 p.m. Go ahead and stretch it to 9 p.m. or put your cat's food in an automatic feeder set to deliver food later in the evening.

Compromise a Bit. Put a cozy bed on your desk, so he doesn't block your computer monitor. Some cats like cat trees, which would free up desk space.

The goal is to work with your cat, so he feels content, happy, and is near you. Remember, he enjoys company, just as you enjoy his. He also may like to have another pet in the house for company.

All my best, Elizabeth



Elizabeth works with the Cornell Feline Health Center in providing the answer on this page (vet.cornell.edu/fhc/).

Coming Up ...

- ► Physical Therapy for Cats
- Urethral Ruptures
- Indoor Cat Food or "Regular" Cat Food
- ► More on Emergency Care

OHAPPENING NOW...

Restricted pet sales increasing - California pet stores can now only sell dogs, cats, and rabbits if they come from shelters or non-profit rescue groups. The law became effective January 1. Under the law, individuals are still allowed to buy from private breeders, but stores are prohibited from doing so.

In Great Britain, pet stores are no longer allowed to sell pets. They have banned all third-party sales to protect the animals.

Museum-Loving Cats - Two cats have been trying for over two years to make their way into a museum in Japan. A guard at the Hiroshima Onomichi City Museum actually spends most of his day shooing the cats away from the automatic doors. There is a video footage

from a museum staff-run Twitter page that shows nearly every movement that the cats make. It also shows the patient guard gently blocking the cats' entry, says a report from TravelandLeisure.com. You can watch a video of them at tinyurl.com/japanesecats.

March Special Dates - Kristen Levine's Pet Living 2019 calendar (kristenlevine. com) lists these significant days in March for cat lovers:

Feb 24-March 2 - National Justice for Animals Week

March 3 - If Pets Had Thumbs Day and International Ear Care Day

March 3-10 - Professional Pet Sitters Week

March 20 - Cuddly Kitten Day March 28 - Respect Your Cat Day■