VOLUME 112, NUMBER 6

June 2017

UBM

Vetted™

VetEc + VetMed, shaken not stirred

Oh, poop.
The scoop on
house soiling
p 12

From pixels to pets
p 8

How to get pets + vets to
≠ stress
p 28

Shocking
facts about
dental care
p 27

A tooth of a
different
COLOR
p 20

Let there be
(natural) **light**
p 30

TOP KOALA-TY
photography
p 2

3 imaging gems
to make your practice sparkle
p 16

Vet secrets spotted at CVC Virginia Beach

CVC convention

Continuing education that inspires.

"This was my first year speaking for (and attending) the CVCs and frankly, I'm blown away. Every part of both the Virginia Beach and KC events was well organized, well attended,
personal, and simply fun. They didn't seem too big, too small, they were perfect. It was very exciting to see the engagement your team is inspiring in the profession. Even the "doodles" are inspiring!" — Dani McVety, DVM

Register now, or learn more at www.TheCVC.com.

CVC unconventional

Kansas City, August 25-28 | San Diego, December 7-10 | Virginia Beach, May 17-20, 2018

UBM

Vetted™

Content
Editor/News Channel Director | **Kristi Reimer**
kristi.reimer@ubm.com
Editor/Team Channel Director | **Portia Stewart**
portia.stewart@ubm.com
Editor/Business Channel Director | **Brendan Howard**
brendan.howard@ubm.com
Editor/Medicine Channel Director | **Mindy Valcarcel**
mindy.valcarcel@ubm.com
Content Marketing Director | **Adrienne Wagner**
Senior Content Specialist | **Jennifer Gaumnitz**
Associate Content Specialists | **Katie James, Sarah Dowdy**
Assistant Content Specialist | **Hannah Wagle**
Technical Editor | **Jennifer Vossman**, RVT, CMP
Digital Content Director | **Jessica Zemler**
Digital Design Director | **Ryan Kramer**
Multimedia Producer | **Troy Van Horn**

Sales
Sales Director | **David Doherty**
913-871-3870 | david.doherty@ubm.com
Account Manager | **Angie Homann**
913-871-3917 | angie.homann@ubm.com
Account Manager | **Angela Paulovcin**
440-891-2629 | angela.paulovcin@ubm.com
Account Manager | **Terry Reilly**
913-871-3871 | terry.reilly@ubm.com
Account Manager | **Heather Townsend**
913-871-3874 | heather.townsend@ubm.com
Digital Data Analyst | **Jenny Shaffstall**
913-871-3854 | jenny.shaffstall@ubm.com
Sales Coordinator | **Anne Belcher**
913-871-3876 | anne.belcher@ubm.com
Books/Resource Guide Sales | **Maureen Cannon**
440-891-2742 | maureen.cannon@ubm.com

Marketing
Marketing Director | **Brenda Andresen**
brenda.andresen@ubm.com
Marketing Designer | **Andrew Brown**

UBM Americas, Veterinary
Vice President & Managing Director | **Christie McFall**
913-871-3810 | christie.mcfall@ubm.com
Vice President, Digital Product Management | **Mark Eisler**
Group Content Director | **Marnette Falley**
Medical Director | **Theresa Entriken**, DVM
CVC Director | **Peggy Shandy Lane**
Business Manager | **Chris Holston**

UBM Life Sciences
Executive Vice President &
Senior Managing Director | **Tom Ehardt**

Subscriber Services: Visit dvm360.com to request or change a subscription, or call our Customer Service Department toll-free at 888-527-7008. **Reprints:** Call 877-652-5295 ext. 121, or write to bkolb@wrightsmedia.com. Outside the US, UK, direct dial 281-419-5727 ext. 121. **Books and Resource Guides:** Visit industrymatter.com. **List Rental Sales:** Call Anne Belcher at 913-871-3876, or write anne.belcher@ubm.com. **Editorial Offices:** UBM Americas, Veterinary, 8033 Flint, Lenexa, KS 66214; 913-871-3800. **Websites:** dvm360.com; TheCVC.com; UBM.com.

UBM

Vet secrets spotted

We all know a career in veterinary medicine is filled with high highs and, yes, some low lows. But no matter what, it's always better when you have an opportunity to voice your thoughts and secrets with a giant group of people who unequivocally "get" what you're going through. If you couldn't make it to CVC Virginia Beach this year, here are some of the secrets spotted in the Vet Confessionals Project exhibit.

Want to confess a secret of your own? Head over to dvm360.com/confess. And don't miss The Vet Confessionals Project live at CVC Kansas City, Aug. 25 to 28. Go to thecvc.com for more information.

THE PICKS

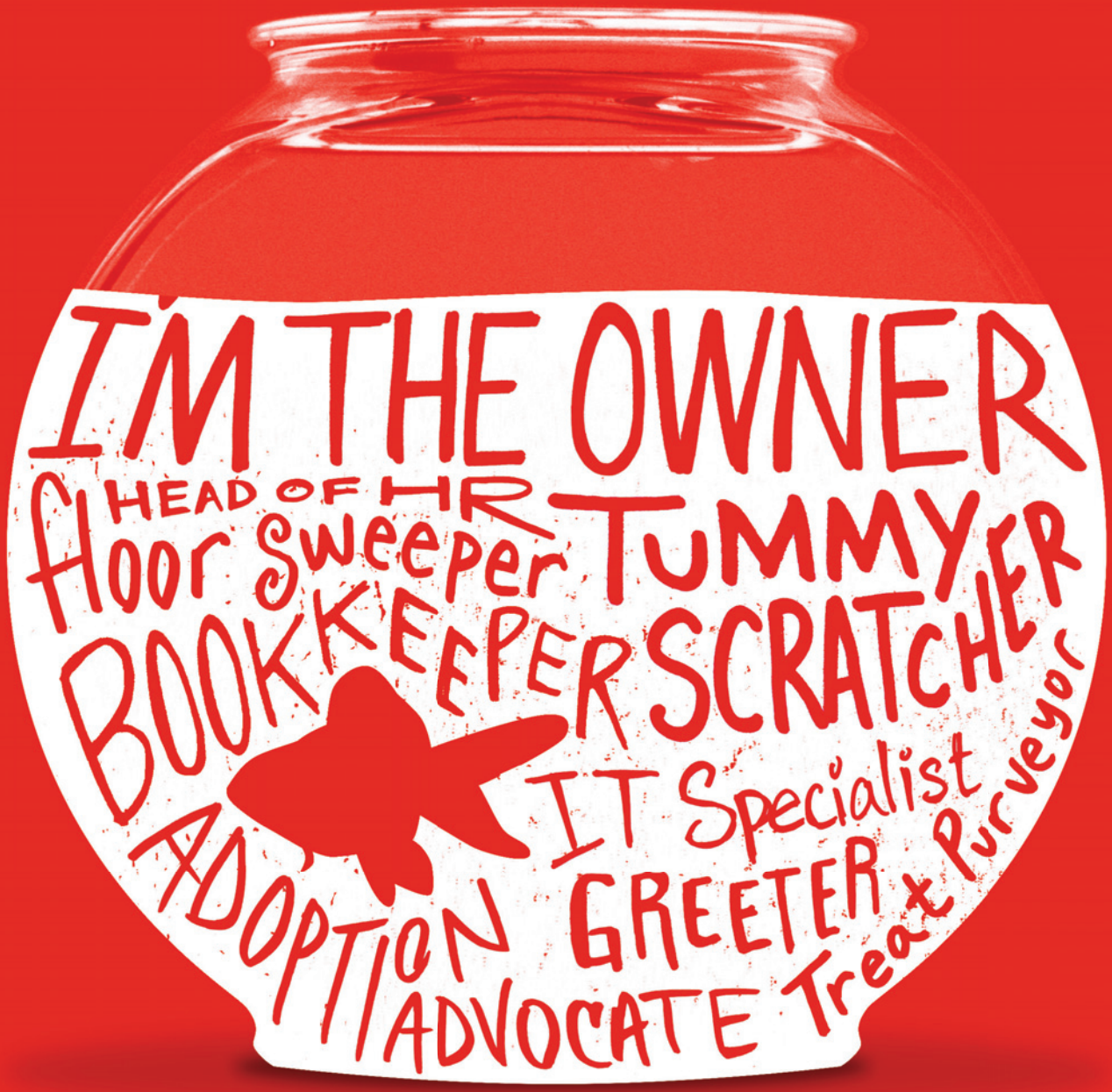
(what we care about now)

A federally threatened koala, *Phascolarctos cinereus*, with her babies at the Australia Zoo Wildlife Hospital.

Top koala-ty

An exclusive peek at the animals of the National Geographic Photo Ark.

At the Western Veterinary Conference in March, National Geographic photographer Joel Sartore spoke on "A World Worth Saving—The Photo Ark," sponsored by Boehringer Ingelheim. The Photo Ark is Sartore's effort to take photos of all animals in captivity, and this image is a mere sampling of photos that are a part the project. Peruse the precious faces at **dvm360.com/arkgallery**, and then visit **dvm360.com/photoark** to read more about the National Geographic Photo Ark and how everyone involved in veterinary medicine can help save these animals—and the world.



For all you do for your business, State Farm® is here.

We're *here to help life go right*™ – with coverage that fits what you do, and the service of an agent who's a small business owner, just like you.

Contact an agent today, or visit st8.fm/bizinsurance.

State Farm®

I'm just a little husky ...

Just like humans—it's calories in and calories out when it comes to weight loss in dogs.

By Kathryn Primm, DVM

Overweight dogs are now so common that we think it must be common knowledge how to fix it. But not much has been truly explored about obesity management in dogs. We know that obesity contributes to other diseases that affect our patients' quality of life. Because of the prevalence of obesity and the damaging side effects, what to recommend to pet owners is very relevant to all of us.

For years, we have told people to be mindful of the amount of food the pet gets and watchful of treats and people food. The results of this restriction have been that some of the patients lose weight, but some people express concern that when calories are restricted, lean body mass is also lost. The role of exercise in the management of obesity in dogs hasn't gotten much investigation, but now we have a study that we can cite about a secret weapon in the war against obesity. It is a weapon we've known about all along—exercise.

AN EXERCISE ON EXERCISE

A study was designed to investigate obesity management for canine patients. The study looked at 12 overweight privately owned dogs. The dogs were divided into a weight loss program based on calorie restriction with a commercial low-fat high-protein diet alone and a weight loss program based on the same diet in conjunction with physical training.

Gene expression in muscle and adipose tissue was sampled, through biopsies, and studied before and after the 12-week program. The genes that were selected for study are key genes and microRNAs relevant to energy metabolism. Some genes that were studied are more beneficial for health when they are upregulated and some when downregulated.

In the diet-restriction-only group, the dogs' bodies responded with changes in fatty tissue, but beneficial gene expression seemed to be lessened in muscle tissue, which suggests that although the body weight was reduced, the muscles were affected in a negative way. These findings seem to confirm the concern that calorie reduction alone—although effective at reducing body fat—can reduce lean muscle mass.

In the diet-and-exercise group, fatty tissue showed altered gene expression, indicating a reduction in fat, but other beneficial genes were more expressed in muscle tissue when compared with the diet-only group, suggesting a positive impact on the muscles. The exercise appeared to exponentially increase the positive effects.

EXAM-ROOM APPLICATION

This study's key takeaway: Even though reducing dietary intake is a good idea, if we can couple it with an increase in exercise, we can significantly affect overall health for the better. Even mild exercise was sufficient to induce beneficial changes in muscle and fat tissues. Weight reduction is a beneficial change, but when paired with even a modest exercise program, positive health effects are compounded. So make sure every bag of weight-reducing food you recommend also comes with the recommendation for an exercise plan!

Uribe JH, Vitger AD, Ritz C, et al. Physical training and weight loss in dogs lead to transcriptional changes in genes involved in the glucose-transport pathway in muscle and adipose tissue. *Vet J* 2016;208:22-27.

WITNESS® | Lepto

Canine Leptospira Antibody Test Kit

Receive an introductory discount of 15% off your purchase of WITNESS Lepto, through June 30th!
(No minimum purchase required.)

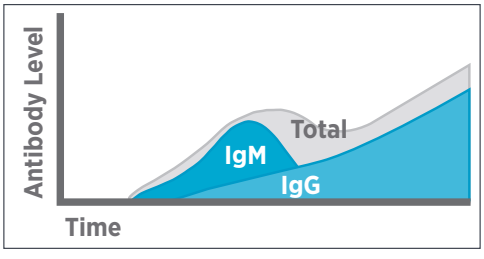
WHY WAIT?

CONFIDENTLY GO FROM SUSPECTING TO DETECTING*

A QUALITY, POINT-OF-CARE LEPTOSPIROSIS TEST THAT DELIVERS RAPID, RELIABLE RESULTS

WITNESS® Lepto detects the primary immune response (immunoglobulin M (IgM) antibodies) which develops within one week of exposure to canine leptospires.

TARGETS THE PREDOMINANT PRIMARY IMMUNE RESPONSE (IgM)



Adapted from: Tizard IR. *Veterinary Immunology—An Introduction.* 5th ed. Philadelphia: W B Saunders Co; 1996: fig 135, and Greene C. "Leptospirosis." *Infectious Diseases of the Dog and Cat.* 4th ed. St. Louis: Elsevier; 2012: 431-447.

IDEAL FOR THE IN-CLINIC ENVIRONMENT

- Get results in your clinic in approximately 10 minutes
- Easy 2-step test procedure with fast results; just add sample and buffer
- Conveniently packaged in kits of 5 tests
- Room temperature storage

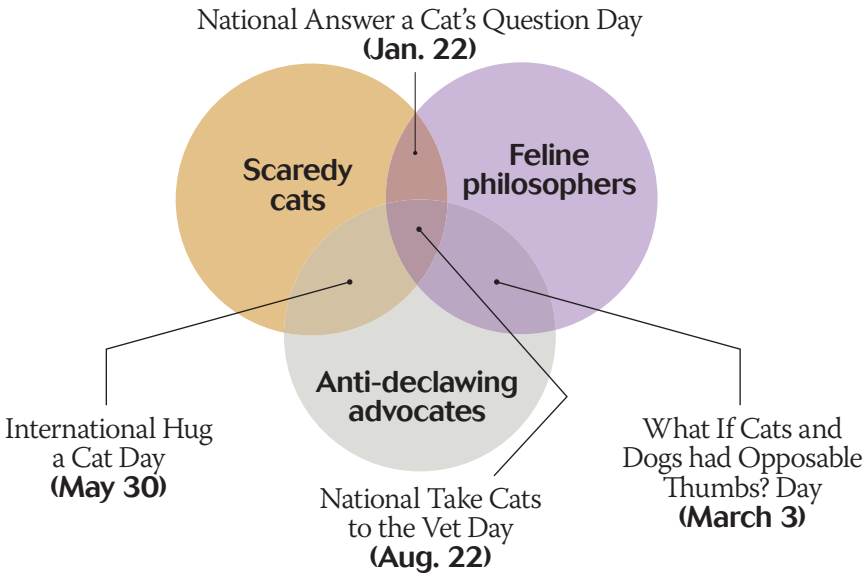
For more information on WITNESS Lepto or other WITNESS products, visit **www.simplysmarterchoice.com.** To order, call Zoetis customer service at **1-888-ZOETIS-1 (963-8471)** or visit **shop.zoetisus.com.**

*WITNESS Lepto Antibody Test detects canine IgM antibodies to four important canine leptospiral serovars.

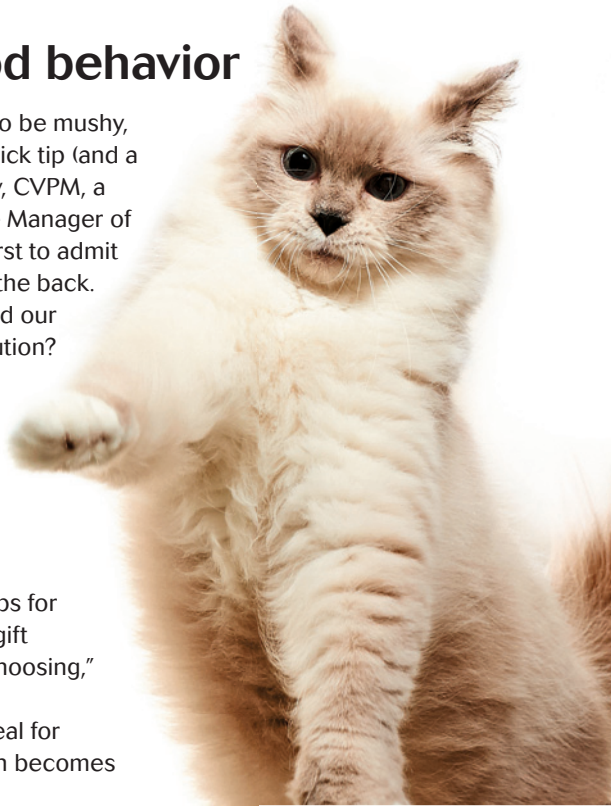
DETECT. PREVENT. TREAT.

zoetis

CAT HOLIDAYS, EXPLAINED



Pounce on good behavior



Saying "thanks" doesn't need to be mushy, sappy or awkward. Here's a quick tip (and a tool, too!) from Jessica Murphy, CVPM, a 2016 dvm360/VHMA Practice Manager of the Year contestant. "I'm the first to admit I'm not good at giving pats on the back. I know it's true, because I asked our employees," she says. Her solution? Orange slips—half pieces of orange paper with this simple (but heartfelt) message: "We caught you doing something extraordinary!" (Get your own appreciation slips at **dvm360.com/thankyou**.)

"We collect those orange slips for a monthly drawing for a $100 gift certificate of the employee's choosing," she says.

The point is to make a big deal for good behavior. The recognition becomes the true gift.

BE THE FIRST TO KNOW

Want more data, tips and tools (with a healthy dose of cat humor)? Get the latest from dvm360.com directly in your inbox once a week. Sign up for our enewsletters at **dvm360.com/em**.

AKIMASA HARADA/SHUTTERSTOCK.COM

ROYAL CANIN®

INCREDIBLE IN EVERY DETAIL™

YOU'RE THE EXPERT ON **FELINE HEALTH.**

WE'RE EXPERTS IN THERAPEUTIC DIETS **CATS LOVE TO EAT.**

At ROYAL CANIN, our expert nutritionists and veterinarians create highly palatable therapeutic diets to help you treat a wide range of feline health conditions. We have balanced formulas to meet your patient's dietary requirements—from promoting healthy skin on the outside to urinary health on the inside—and the palatability to ensure they get all the nutrition they need.

DISCOVER SPECIALIZED NUTRITIONAL SOLUTIONS FOR ALL THE CATS YOU TREAT.

Learn more at **ROYALCANIN.COM**

Featured Formulas:

Dr. Gardner and her beloved pooch, Serissa.

I am the walrus, goo goo g'snooze

I sleep with a stuffed animal. It's a walrus a friend gave me years ago. It just fits under my arm perfectly and makes sleeping so comfy. I've even named him Merk, and he has traveled the world. Some people like to snuggle with a body pillow or regular pillow. I like my Merk.

Join Dr. Gardner at CVC Kansas City Aug. 25 to 28 to hear her talks on geriatric and end-of-life care. Visit **theecvc.com/kc** to learn more.

Career reboot:

Bye-bye computers, hello vet med

By Mary Gardner, DVM

The hardest career moment for me was not in veterinary medicine but in computer software design, which is where my adult work world started. I had a solid career with a bright future and made a stable and positively increasing income. But then I had the crazy urge to quit and become a vet. I had to quit that stability, take undergraduate courses and apply for vet school with the hopes of being accepted in my 30s.

Follow your heart

I had so many people trying to discourage me—particularly veterinarians—saying how bad it is to be a vet. But they didn't stop me. I got in on my first attempt (whew), and I love our industry.

Then listen to your gut

Leaving general practice to start Lap of Love Veterinary Hospice and In-Home Euthanasia with my partner, Dr. Dani McVety, was the easiest decision ever. I knew in my gut that it was a needed service, and to have the opportunity to try it with a close friend—even better! It hasn't always been an easy ride—there are lots of hurdles starting, running and growing a business—but I never had a doubt!

Be yourself

Everyone asks me, "How tall are you?" I'm 6-feet, 1-inch tall. No one asks if I'm an introvert. I'm clearly a massive extrovert! If I had a spirit animal, I think it would be the fictional character Tigger from *Winnie the Pooh*. Tigger is cheerful, outgoing and competitive in a friendly way, and he has complete confidence in himself. I would also bounce everywhere if I had the ability. Tigger also never gets lost—something I pride myself on.

PHOTO COURTESY OF DR. MARY GARDNER

Simbadol™ (buprenorphine injection) C-III

Once-daily* 24-hour continuous surgical pain control for cats

24-hour

THE ONLY **FDA APPROVED** BUPRENORPHINE FOR CATS

- Demonstrated safety and efficacy in more than 200 cats treated with SIMBADOL
- Up to 3 once-daily subcutaneous doses for a total of 72 hours of pain control

Learn more at SIMBADOL.com

*Administered subcutaneously for up to 3 days.

IMPORTANT SAFETY INFORMATION: Due to serious human safety and abuse concerns, including physical or psychological dependence, life-threatening respiratory depression and additive CNS depressant effects, read the full prescribing information before using this drug, including the complete Boxed Warning. Not for use in humans. Hospital staff should be trained in the handling of potent opioids and should avoid accidental exposure. SIMBADOL has not been evaluated in breeding, pregnant, or lactating cats, in cats younger than 4 months of age or moribund cats. Do not use in cats with known hypersensitivity to buprenorphine hydrochloride or any of the components of SIMBADOL, or known intolerance to opioids. Use with caution in cats with impaired hepatic function. Adverse reactions may include hyperthermia, tachycardia, hypotension, hypertension, hypothermia, anorexia, and hyperactivity. **For more safety information, see the Brief Summary of full Prescribing Information on the following page 10.**

zoetis

Brief Summary of Prescribing Information See package insert for full Prescribing Information.

For Use in Cats Only

Simbadol™ (III)
(buprenorphine injection)

For subcutaneous use in cats
Opioid Analgesic

CAUTION:
Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

HUMAN SAFETY WARNING

Abuse Potential
SIMBADOL contains buprenorphine (1.8 mg/mL), an opioid agonist and Schedule III controlled substance with an abuse potential similar to other Schedule III opioids. Buprenorphine has certain opioid properties that in humans may lead to dependence of the morphine type. Abuse of buprenorphine may lead to physical dependence or psychological dependence. The risk of abuse by humans should be considered when storing, administering, and disposing of SIMBADOL. Persons at increased risk for opioid abuse include those with a personal or family history of substance abuse (including drug or alcohol abuse or addiction) or mental illness (suicidal depression).

Life-Threatening Respiratory Depression
Respiratory depression, including fatal cases, may occur with abuse of SIMBADOL.

Additive CNS Depressant Effects
SIMBADOL has additive CNS depressant effects when used with alcohol, other opioids, or illicit drugs that cause central nervous system depression.

Accidental Exposure
Because of the potential for adverse reactions associated with accidental injection, SIMBADOL should only be administered by veterinarians or veterinary technicians who are trained in the handling of potent opioids.

See Human Safety for detailed information.

INDICATION:
SIMBADOL is indicated for the control of postoperative pain associated with surgical procedures in cats.

CONTRAINDICATIONS:
SIMBADOL is contraindicated in cats with known hypersensitivity to buprenorphine hydrochloride or any of the components of SIMBADOL, or known intolerance to opioids.

WARNINGS:
For subcutaneous (SQ) injectable use in cats.

Human Safety:
Not for use in humans. Keep out of reach of children.

Adult Human User Safety while handling SIMBADOL in the hospital:
Mucous membrane or eye contact during administration:
Direct contact of SIMBADOL with the eyes, oral or other mucous membranes could result in absorption of buprenorphine and the potential for adverse reactions. If accidental eye, oral or other mucous membrane contact is made during administration, flush the area with water and contact a physician.

Skin contact during administration:
If human skin is accidentally exposed to SIMBADOL, wash the exposed areas with soap and water and contact a physician. Accidental exposure could result in absorption of buprenorphine and the potential for adverse reactions.

Drug Abuse, Addiction, and Diversion of Opioids:

Controlled Substance:
SIMBADOL contains buprenorphine, a mu opioid partial agonist and Schedule III controlled substance with an abuse potential similar to other Schedule III opioids. SIMBADOL can be abused and is subject to misuse, abuse, addiction, and criminal diversion. SIMBADOL should be handled appropriately to minimize the risk of diversion, including restriction of access, the use of accounting procedures, and proper disposal methods, as appropriate to the clinical setting and as required by law.

Abuse:
Abuse of SIMBADOL poses a hazard of overdose and death. This risk is increased with concurrent abuse of alcohol and other substances including other opioids and benzodiazepines. Buprenorphine has been diverted for non-medical use into illicit channels of distribution. All people handling opioids require careful monitoring for signs of abuse. Drug abuse is the intentional non-therapeutic use of a prescription drug for its rewarding psychological or physiological effects. Abuse of opioids can occur in the absence of true addiction.

Storage and Discard:
SIMBADOL is a Class III opioid. Store in a locked, substantially constructed cabinet according to DEA and local controlled substance guidelines. Discard broached vials after 28 days. Any unused or expired vials must be destroyed by a DEA registered reverse distributor; for further information, contact your local DEA field office or call Zoetis Inc. at 1-888-963-8471.

Information for physician:
SIMBADOL injectable solution is a mu opioid partial agonist (1.8 mg buprenorphine/mL). In the case of an emergency, provide the physician with the package insert. Naloxone may not be effective in reversing respiratory depression produced by buprenorphine. The onset of naloxone effect may be delayed by 30 minutes or more. Doxapram hydrochloride has also been used as a respiratory stimulant.

PRECAUTIONS:
Hyperactivity (opioid excitation) has been observed up to 8 hours after anesthetic recovery (see ADVERSE REACTIONS).

Safety has not been evaluated in moribund cats (i.e., those not expected to live more than 24 hours with or without surgery). Use in such cases should be based on the risk-benefit assessment of the veterinarian.

Use with caution in cats with impaired hepatic function.

The use of SIMBADOL has not been evaluated in breeding, pregnant, or lactating cats, or in cats younger than 4 months of age.

ADVERSE REACTIONS:
In two controlled field studies, a total of 450 male and female cats 4 months to 16 years old, weighing between 2.6 – 20.0 lb were included in the field safety analysis. In one study, cats underwent a soft tissue surgical procedure (soft tissue). In the other study, cats underwent onychectomy, onychectomy and castration, or onychectomy and ovariohysterectomy (orthopedic). The following tables (one table for each study) show the number of cats exhibiting each observation.

Adverse Reactions in the Soft Tissue Field Study

	SIMBADOL (N = 109)		Control (N = 112)	
Adverse Reaction[a]	**During Surgery[b]**	**After Surgery**	**During Surgery[b]**	**After Surgery**
Hypotension[c]	39 (35.8%)	29 (26.6%)	33 (29.5%)	24 (21.4%)
Tachycardia[d]	26 (23.9%)	29 (26.6%)	15 (13.4%)	20 (17.9%)
Hypothermia (≤98.0°F)	30 (27.5%)	1 (0.9%)	31 (27.7%)	0
Hyperthermia (≥103.0°F)	0	40 (36.7%)	0	19 (17.0%)
Hypertension[e]	7 (6.4%)	20 (18.3%)	9 (8.0%)	6 (5.4%)
Anorexia	0	18 (16.5%)	0	15 (13.4%)
Hyperactivity	0	10 (9.2%)	0	4 (3.6%)
Reduced Oxygen Saturation of Hemoglobin (pulse oximetry ≤90%)	5 (4.6%)	1 (0.9%)	8 (7.1%)	0
Bradycardia (≤90 beats/min)	2 (1.8%)	1 (0.9%)	1 (0.9%)	0
Tachypnea (≥72 breaths/min)	0	3 (2.8%)	0	2 (1.8%)
Arrhythmia	1 (0.9%)	0	1 (0.9%)	0
Hyperesthesia	0	1 (0.9%)	0	0
Blindness	0	1 (0.9%)	0	0
Apnea/Death	0	1 (0.9%)	0	0

a. Cats may have experienced more than one type or occurrence of an adverse reaction. Cats experiencing the same reaction both during and after surgery are presented in both time periods.
b. During surgery is the time from the administration of the anesthetic induction agent until discontinuation of the gas anesthetic.
c. Hypotension is defined as a mean blood pressure of ≤60 mmHg during surgery and ≤90 mmHg after surgery.
d. Tachycardia is defined as a heart rate ≥180 beats per minute during surgery and ≥200 beats per minute after surgery.
e. Hypertension is defined as a mean blood pressure of ≥120 mmHg during surgery and ≥160 mmHg after surgery.

Adverse Reactions in the Orthopedic Field Study

	SIMBADOL (N = 115)		Control (N = 114)	
Adverse Reaction[a]	**During Surgery[b]**	**After Surgery**	**During Surgery[b]**	**After Surgery**
Tachycardia[c]	29 (25.2%)	44 (38.3%)	15 (13.2%)	24 (21.1%)
Hypotension[d]	29 (25.2%)	22 (19.1%)	27 (23.7%)	16 (14.0%)
Hyperthermia (≥103.0°F)	1 (0.9%)	51 (44.3%)	0	14 (12.3%)
Anorexia	0	22 (19.1%)	0	20 (17.5%)
Hypertension[e]	3 (2.6%)	20 (17.4%)	8 (7.0%)	12 (10.5%)
Hypothermia (≤98.0°F)	8 (7.0%)	0	16 (14.0%)	0
Hyperactivity	0	16 (13.9%)	0	7 (6.1%)
Bradycardia (≤90 beats/min)	3 (2.6%)	0	3 (2.6%)	1 (0.9%)
Tachypnea (≥72 breaths/min)	0	2 (1.8%)	1 (0.9%)	4 (3.5%)
Reduced Oxygen Saturation of Hemoglobin (pulse oximetry ≤90%)	3 (2.6%)	0	3 (2.6%)	0
Arrhythmia	0	1 (0.9%)	1 (0.9%)	0
Blindness	0	1 (0.9%)	0	1 (0.9%)
Ataxia	0	1 (0.9%)	0	0
Apnea/Death	1 (0.9%)	0	0	0

a. Cats may have experienced more than one type or occurrence of an adverse reaction. Cats experiencing the same reaction both during and after surgery are presented in both time periods.
b. During surgery is the time from the administration of the anesthetic induction agent until discontinuation of the gas anesthetic.
c. Tachycardia is defined as a heart rate ≥180 beats per minute during surgery and ≥200 beats per minute after surgery.
d. Hypotension is defined as a mean blood pressure of ≤60 mmHg during surgery and ≤90 mmHg after surgery.
e. Hypertension is defined as a mean blood pressure of ≥120 mmHg during surgery and ≥160 mmHg after surgery.

The two cats with apnea in the SIMBADOL™ (buprenorphine injection) group died from the adverse reaction. The cat in the soft tissue study underwent a necropsy and a specific cause of death was not found, although other remarkable findings included metastatic neoplasia affecting multiple systems. The cat in the orthopedic study experienced apnea during endotracheal intubation. The cat was healthy and a specific cause of death was not found.

Two cats in the SIMBADOL group and one cat in the placebo control group were reported with presumptive post-anesthetic cortical blindness. Both cats in the SIMBADOL group received blood pressure intervention during surgery for low blood pressure. All cats regained vision within 7 to 84 days after surgery; however, one cat in the SIMBADOL group continued to have some visual and balance deficits.

One cat in the SIMBADOL group in the soft tissue study was euthanized after completion of the study due to pulmonary complications. The complications were considered likely related to the severity of the cat's injuries prior to surgery.

To report suspected adverse events, for technical assistance, or to obtain a copy of the MSDS, contact Zoetis Inc. at 1-888-963-8471.

For additional information about adverse drug experience reporting for animal drugs, contact the FDA at 1-888-FDA-VETS or online at http://www.fda.gov/AnimalVeterinary/SafetyHealth.

STORAGE INFORMATION:
Store at temperatures up to 25°C (77°F). Protect from light and excessive heat (above 40°C or 104°F). Use within 28 days of first puncture.

HOW SUPPLIED:
SIMBADOL (buprenorphine injection) is supplied in a carton containing one 10 mL amber glass vial. Each multidose vial contains 1.8 mg/mL of buprenorphine.

NADA 141-434, Approved by FDA

zoetis
Distributed by:
Zoetis Inc.
Kalamazoo, MI 49007

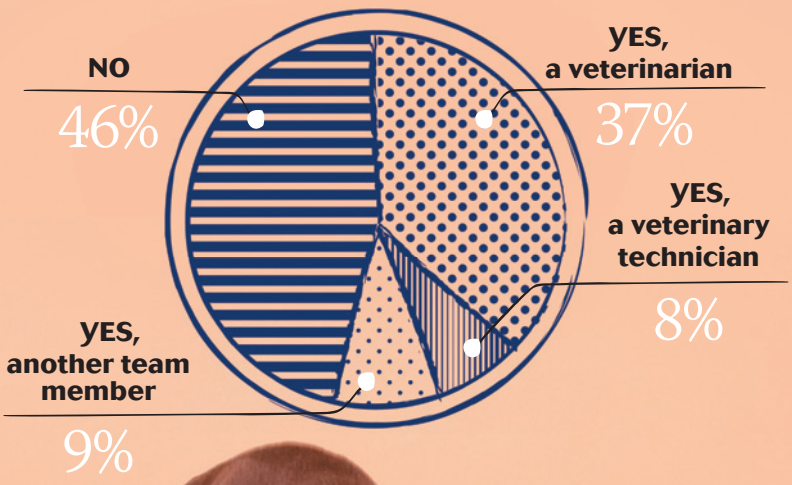
Product of United Kingdom

Revised: August 2015
80560800B/S

Look before you leap

Better behavior consultations for your patients are on the horizon—so what might be holding you back? Here's a look at who is doing the majority of client communication on behavior issues, plus tips from all-star practices.

Do you have someone in your practice who's particularly passionate about talking to clients about behavior issues?

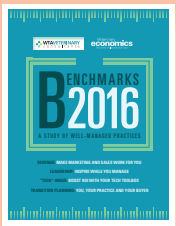


What makes for an amazing behavior visit? We asked Well-Managed Practices—here are the top tips.

Richard Vesper, DVM, and Gretchen Latham, RVT, KPA, CTP, of Avery Animal Hospital in Hilliard, Ohio, do the following:

- ➔ Develop a customized treatment plan for each case.
- ➔ Provide educational handouts.
- ➔ After the initial consultation, follow up with clients by phone or email at one, three, six, nine and 12 weeks.
- ➔ Schedule additional appointments as needed.

Get more insights in *Benchmarks 2016: A Study of Well-Managed Practices*. Go to **dvm360.com/benchmarks** for more.



53% of your colleagues say they have a behaviorist they regularly refer to, which is great. But what if you don't? Head over to **dvm360.com/6tips** for (you guessed it) six tips for better behavior discussions and expert tips to refer tough behavior cases.

Source: 2016 dvm360 Spectrum of Care Survey and *Benchmarks 2016: A Study of Well-Managed Practices.*

AUDRIUS MERFELDAS/SHUTTERSTOCK.COM

Ho

Preadoption counseling

A 2007 study by Meghan E. Herron, DVM, and colleagues looked at whether preadoption counseling with owners of newly adopted shelter dogs improved housetraining outcomes.

One month after adoption, 98% of counseled owners considered their dogs housetrained, compared with 86% of noncounseled owners. Interestingly, the two groups didn't differ in the number of house soiling incidents, but Dr. Christensen infers that the counseled group members perceived themselves as more successful because they had been armed with tools and realistic expectations.

Read the abstract at dvm360.com/newspaper.

RAZOOMGAME/SHUTTERSTOCK.COM

use soiling

Have clients bop *themselves* with a newspaper

Veterinary behavior expert Dr. E'lise Christensen lists common housetraining mistakes owners make so you can help them get rid of their bad habits instead of their dogs. *By Sarah Dowdy, Associate Content Specialist*

House soiling doesn't do your client's floor or patience any favors, which is why it's a major contributor to pet relinquishment. CVC speaker and behavior expert E'lise Christensen, DVM, DACVB, says this is partly due to unrealistic client expectations.

For example, clients often underestimate how often dogs need bathroom breaks, Dr. Christensen says. She once had a client complain about a dog that kept eliminating on the porch where it was kept. When Dr. Christensen asked how often the dog was taken out, the client replied that he took the dog out once a day. "How often do you go to the bathroom?" she asked. "Your dog needs to go out at least that many times."

So when a client complains about house soiling, don't assume that the pet has been given an appropriate number of opportunities to eliminate outdoors, says Dr. Christensen. They may not recognize their pet's natural needs.

Dr. Christensen recommends taking out young dogs every hour. When clients protest, she explains, "If you take your dog out 10 times a day for the next few weeks, you'll be done. If you take the dog out three times a day, you'll be doing this for years. Do it right the first time."

Here are other ways clients unwittingly set their dogs up for housetraining failure:

Getting a dog in the winter

Puppies may be a popular Christmas present, but Dr. Christensen says there are perils to housetraining in the winter. "Clients need to take the dog out," she says, "but they can't get their boots on fast enough and the dog ends up peeing on the floor. They chase this problem all winter, and then by spring, they really want to work on it but they're stymied by how often the dog is peeing in the house."

Leaving accidents

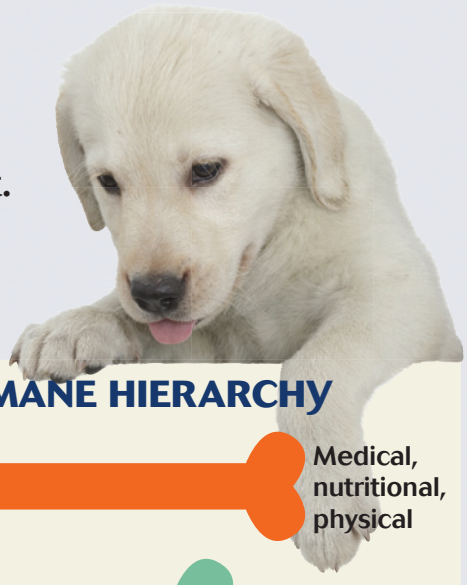
Clients—especially those with small dogs—often leave accidents, using the excuse that they'll get it later. "If you want to housetrain your dog, you have to clean it up—otherwise, it looks like a latrine and your dog will keep going there," Dr. Christensen says.

Winging it

Having a schedule is very important, says Dr. Christensen. She recommends having clients log what the puppy's day looks like, when it's given an opportunity to eliminate, when it actually eliminates and where it eliminates. "That's how we collect our data to know what we need to change in our plan," Dr. Christensen explains.

Partnering with a trainer is a no-brainer

Don't just hand your clients business cards of trainers you've never met and know nothing about. Partner with a trainer to improve patients' health.



Though many studies have shown a link between pet behavior and health (and between pet behavior and owner relinquishment), many veterinary professionals don't jump for joy at the thought of behavior consultations. (Don't believe us? Check out the data on page 11.)

If behavior isn't your cup of tea (or your area of expertise), or if you just want to take behavior services to the next level in your practice, try joining forces with a local trainer. At the very least, investigate a trainer well enough to make confident referrals. That trainer, in return, can refer clients to you. But with so many trainers, how do you choose a partner?

Look at the trainer's training model, says CVC educator Mikkel Becker, CBCC-KA, CPDT-KA, CDBC, CTC, KPA graduate. One model Becker really likes is the Humane Hierarchy, which was developed by Utah State University psychology professor Susan Friedman, PhD. The Humane Hierarchy incorporates the expertise of trainers and veterinary professionals by design.

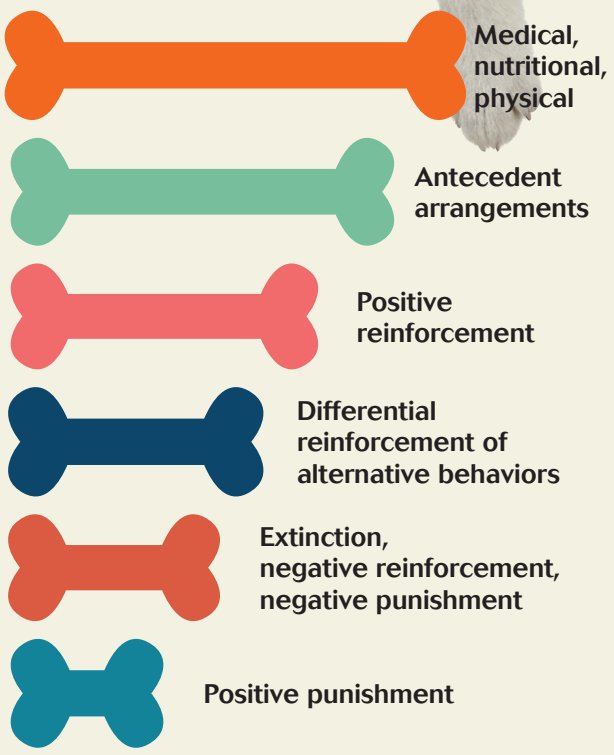
Instead of jumping directly to punishment, the hierarchy lists several different ways to address a negative behavior before reaching punishment. These steps take the pet's health into account as well as its environment to take a holistic approach to behavior.

The first step is to look at health and nutrition. This is one of the times the partnering trainer would refer the pet to you, the veterinary health professional. The second step looks at environment (for example, is the pet getting enough exercise and enrichment?), and the third step is positive reinforcement.

"Then we [speaking for trainers] can give them a replacement behavior," Becker says. "So for example, say we have an animal that's jumping up. Rather than punishing the pet for jumping up, what we might do is reward it when it naturally settles down or give it attention then. Or, ideally, we can give the pet a replacement behavior. We could teach the pet to touch our hand with its nose, to sit, or go to its bed."

The next step includes extinction. "For the animal that's jumping up, we're going to completely ignore it altogether," says Becker. This step also includes negative reinforcement and negative punishment. Negative punishment might look like putting the pet in time out for a few minutes.

THE HUMANE HIERARCHY

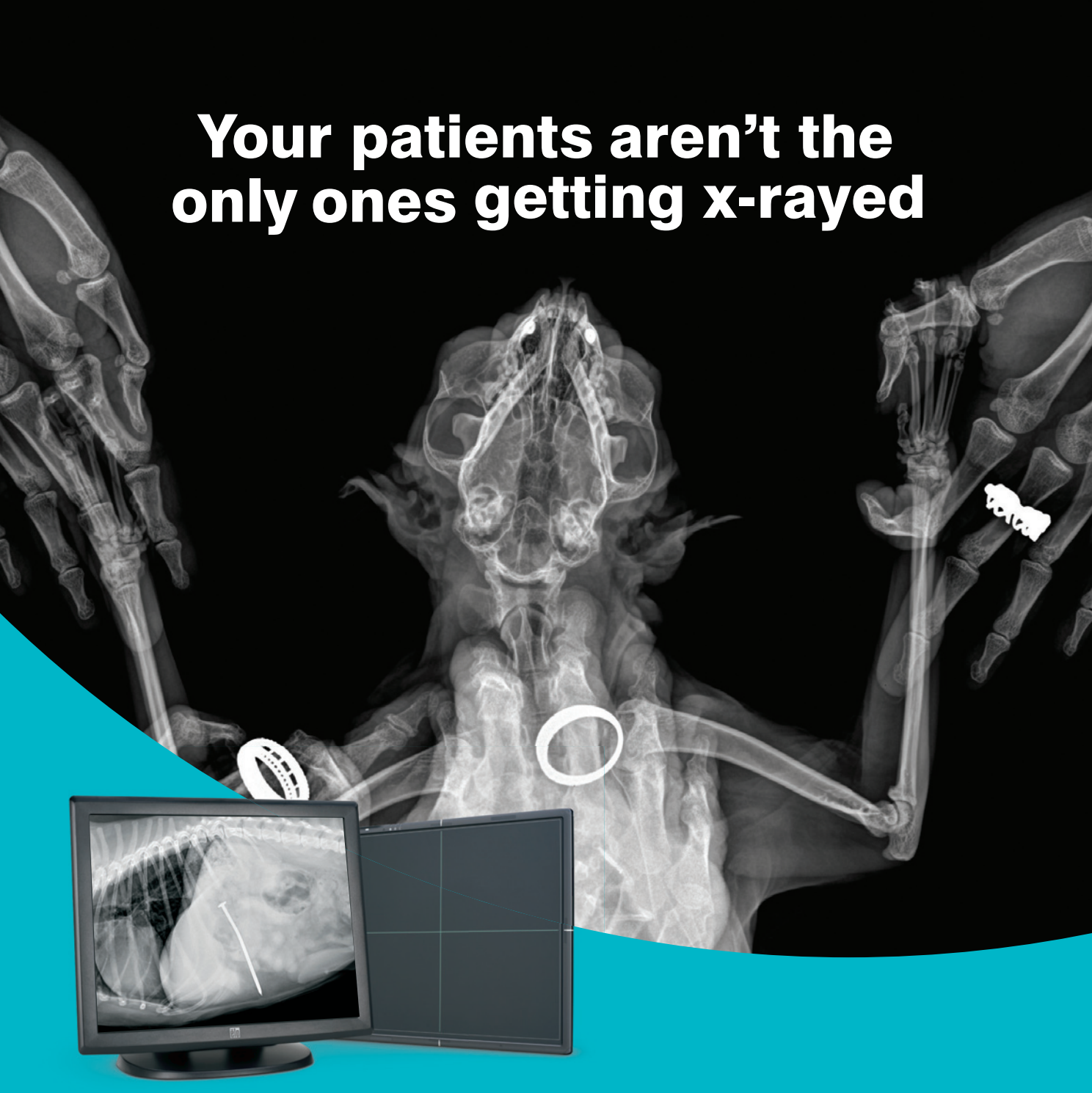


Source: Friedman SG. What's wrong with this picture? Effectiveness is not enough. *APDT Journal* March/April 2010.

Listen to the audio at **dvm360.com/humanehierarchy** to hear about the Humane Hierarchy in Becker's own words …

Time for positive punishment, right? Not so fast, says Becker. "Before getting to positive punishment, we want to stop and look at it again," she says. Becker will often go back to the beginning of the hierarchy at this point to see if there's something she missed and perhaps refer to a veterinarian, if needed.

Your patients aren't the only ones getting x-rayed



Lower the dose with the ImageVue® DR50

Minimize radiation exposure without sacrificing clear, high-quality diagnostic images.

Visit **idexx.com/lower** or call **1-855-627-6573**.

IDEXX is a proud sponsor of LowerTheDose.org

IDEXX

3 digital imaging gems for veterinarians make your practice sparkle

Worrying that DR will become obsolete as soon as you make the purchase? Don't. Just like fine diamonds, this technology holds value for years to come.

By Anthony Pease, DVM, MS, DACVR

Dr. Anthony Pease is an associate professor in the Department of Small Animal Clinical Sciences at Michigan State University's College of Veterinary Medicine.

1 You can take three views instead of two.

As a radiologist, I still have veterinarians send me single lateral or two-view radiographs of the thorax and abdomen looking for abnormalities. Although this is usually enough to make a diagnosis, by taking the opposite lateral you increase the chance of seeing lesions by 33 percent. (Get it? You're getting another radiograph, so now you have three chances to see lesions rather than just two).

Also, things are hidden on the down side that you can't usually see until you flip the patient over to allow gas in the region to provide radiographic contrast with the soft tissue and fluid that may be present, especially in the abdomen. For example, in most dogs linear foreign bodies get caught in the pylorus of the stomach. A right lateral radiograph puts that side down so it's surrounded by fluid. Therefore the soft tissue of the foreign body blends with the fluid in the stomach and you can't see the lesion. If you're worried about a linear foreign body, take a left lateral radiograph to put gas in the pylorus, allowing you to see the foreign body (Figure 1).

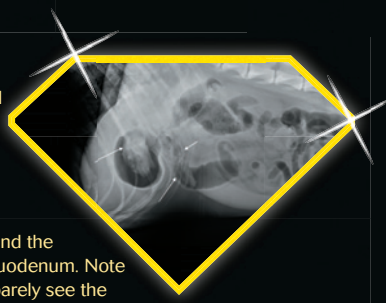


Figure 1A: This left lateral radiograph shows a foreign body (sock) within the pylorus of the stomach and the descending duodenum. Note that you can barely see the linear striations of the lesion on the right lateral radiograph (Figure 1B), but it is clearly seen on the left lateral when gas is present in the fundus.

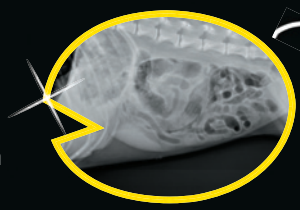


Figure 1B: Right lateral view.

RADIOGRAPHY IMAGES COURTESY OF DR. ANTHONY PEASE

2 Contrast studies can still be done, but think of contrast medium like an overwhelming force—a little goes a long way. This may not make intuitive sense, as contrast medium is supposed to highlight abnormalities and is heavier than liquid so it settles, but remember that contrast medium is so opaque it will overpower and hide anything it covers. For example, consider a double-contrast cystogram. If you put too much iodinated contrast medium in the urinary bladder, you'll miss the stone. Also, for upper gastrointestinal tract examinations in stable patients, it's sometimes easier to see the foreign bodies four to six hours after administration of barium since the barium will stick to the foreign material after the rest of the barium clears (Figure 2). Just remember, if you're going to ultrasonographically examine the abdomen as well, do it before administering barium as this contrast medium will shadow and can be mistaken for a foreign body.

Figure 2A: This radiograph was obtained six hours after barium administration. Note all the barium is within the colon, except for a focal region in the stomach. This was a gastric foreign body (Vetrap) that was retained in the stomach.

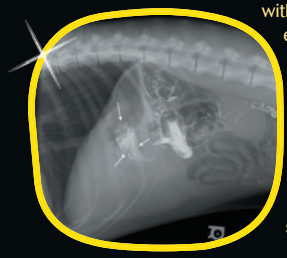
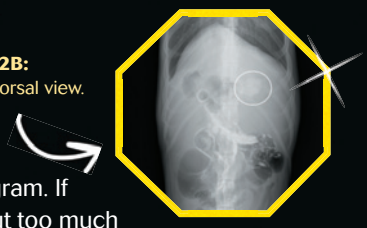


Figure 2B: Ventrodorsal view.



3 Positioning is key. The easier it has become to take radiographs with digital technology, the more likely it is for clinicians to cut corners because of the speed with which images are processed. Lost is the art of positioning patients with a straight lateral and using wedge pads and positioning devices. Largely this comes from a lack of willingness to sedate animals because it takes added time. But using sedation to minimize patient stress and provide the ability to use sandbags to minimize technicians' exposure to radiation will make radiographs go faster in the long run and provide a better image to interpret. The more oblique the position, the more likely we as radiologists are to miss lesions.

SHINE ON

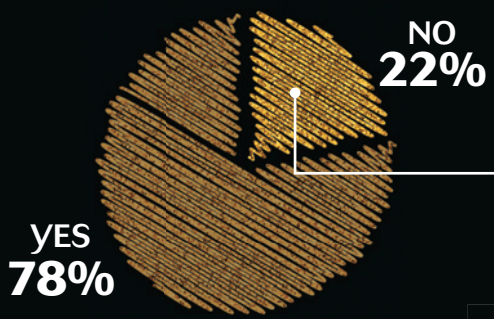
Find two more gems from Dr. Pease at **dvm360.com/gems**. Need some ammo to convince your practice owner or manager that DR is a good idea? We developed a super-detailed product comparison chart that gives you the skinny on all the latest systems. Get it at **dvm360.com/DRchart**.

RB PET PHOTOGRAPHY/SHUTTERSTOCK.COM

Do you DR?

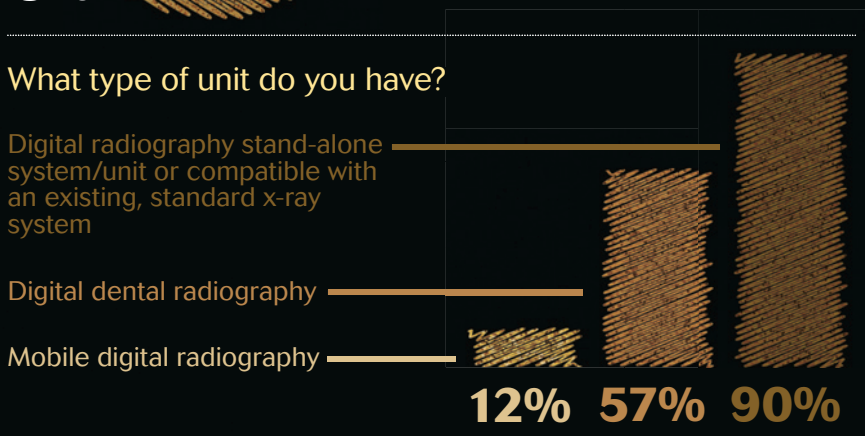
We asked survey respondents to tell us about their experiences with selecting, financing and practicing with a digital radiography system. Here are the results.

Does your practice have a digital (direct or computed) radiography unit/system?

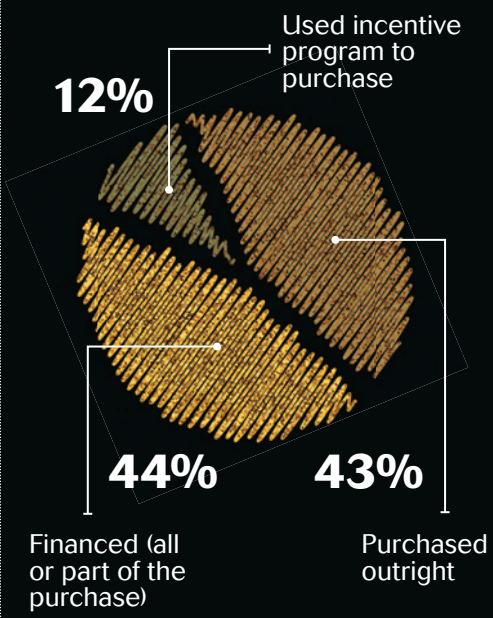


Of those who said no, **77%** said they planned to purchase a DR unit/system within the next 5 years.

What type of unit do you have?



Thinking about your most recent digital radiography purchase, which financing method did you use?



What advice or recommendation would you offer about digital radiography to a peer?

> No matter how small your practice, [purchasing a DR system] yesterday wouldn't be soon enough.

> I'm able to make more confident diagnoses than I did on film.

> Integration with practice software is a must! Stick with a company known for follow-up care and service.

> Verify the vendor has lots of veterinary experience as opposed to human medical experience. Don't decide because of the price.

> Why are you still practicing in the dark?

The dvm360 clinical updates survey on digital radiography was sent to subscribers of dvm360, *Vetted* and *Firstline*, and garnered 213 responses, with a 6% margin of error. Total percentages may not equal 100% due to rounding.

FIND WHAT WORKS FOR YOU
Browse the options for DR systems at **dvm360.com/DR**

A tooth of a different color

We've all seen patients with stained teeth, and when we do, there's often an inclination to tell owners to simply "keep an eye on it." But because these pets are often in pain, a wait-and-see approach won't cut it if you're striving to provide high-quality patient care.

The cause of discoloration

When the blood supply to a tooth is interrupted, either temporarily or permanently, hemoglobin in the pulp cavity is degraded into byproducts that leach into the dentin wall and give it a pink or purple hue. If these hemocomponents continue to break down, the tooth will appear blue or gray.

In one study of dogs with intrinsically stained teeth, more than 92% of the stained teeth were nonvital (i.e. had partial or total pulp necrosis).[1] Teeth often become nonvital through trauma, which causes tooth subluxation, luxation or avulsion. In addition, anachoresis, a blood-borne infection, can affect a tooth at the apex and cause it to become nonvital.

Reversible pulpitis

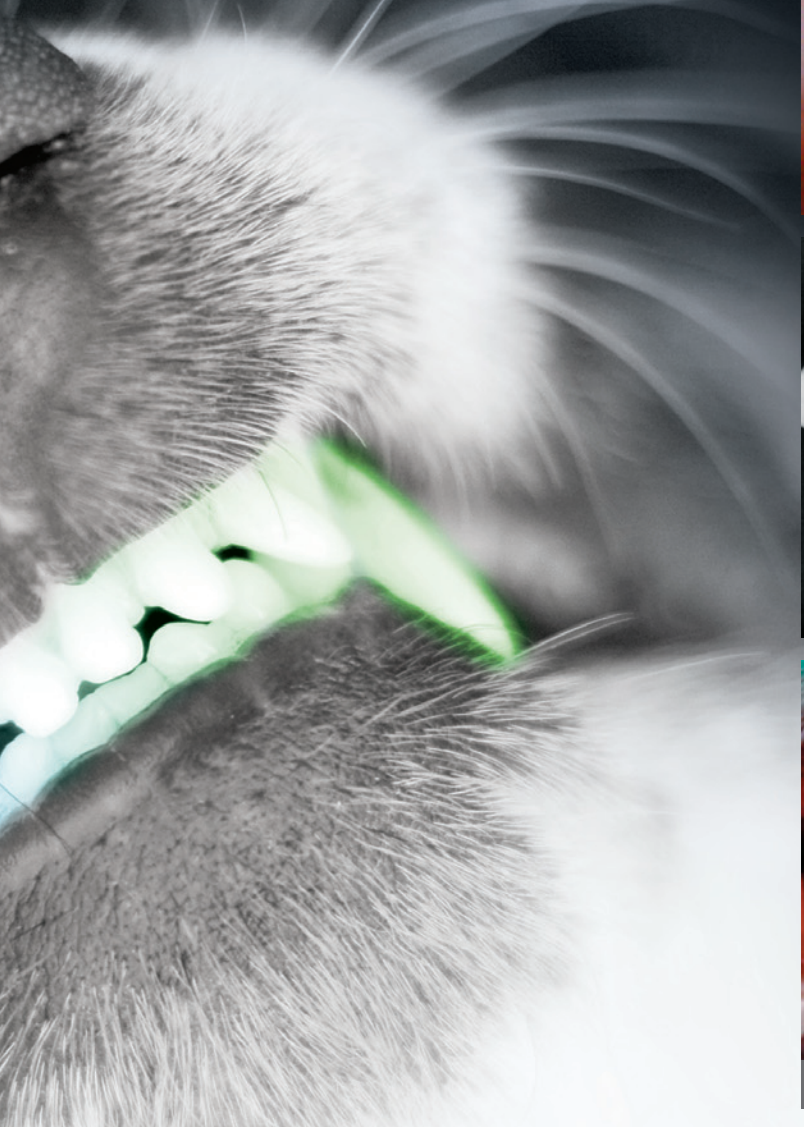
Sometimes the tooth discoloration is nonpermanent, as is the case with reversible pulpitis, which is caused by inflammation or trauma. If treated appropriately, the pulp cavity can become viable again and the tooth discoloration may lessen and return to normal. Pain is common in people with acute periapical periodontitis or acute periapical abscess, so we should assume the same in our patients.

In an ideal world, we would know the exact time the trauma occurred or the inflammation began, but that's rare. If a tooth tip or the coronal one-fourth of a crown becomes acutely discolored, you can initially assume it is reversible pulpitis. Administer antibiotics (amoxicillin-clavulanate or clindamycin) and NSAIDs (provided the patient's renal and hepatic function is normal) for seven days. If the tooth's color doesn't return to normal after two or three months, you can assume it's experiencing irreversible pulpitis.

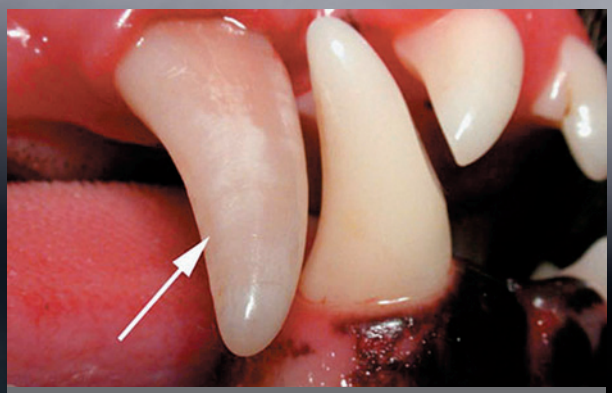
DENTAL IMAGES COURTESY OF DR. BARDEN GREENFIELD

If your patient has a gray, pink, purple or blue tooth, don't just tell the owner to keep an eye on it. An intrinsically stained tooth is more than just a cosmetic issue, and the associated disease is often painful.

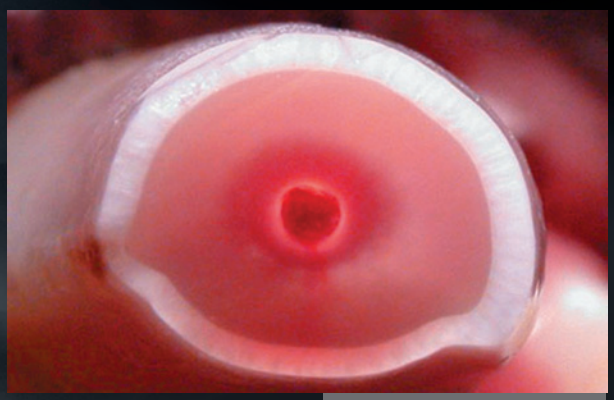
By Barden Greenfield, DVM, DAVDC

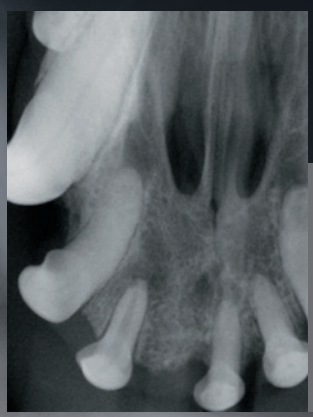


FARM GATE PHOTOGRAPHY/SHUTTERSTOCK.COM



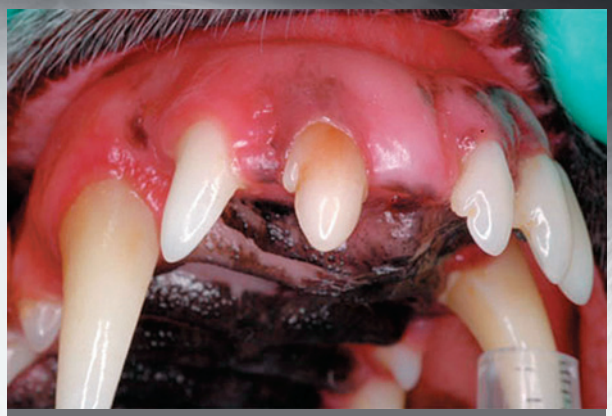
>>> Discolored (nonvital) right maxillary canine tooth.





>>> Cross-section of a nonvital canine tooth. Notice the intrinsic staining of the dentinal wall.

>>> Intraoral digital dental radiograph of the right maxillary 2nd incisor tooth. A wide pulp cavity compared to the contralateral left 2nd incisor indicates premature maturation (tooth death).



>>> Discolored (nonvital) right maxillary 2nd incisor.

What the heck do you call a 'dental'?!

Don't shortchange the hard work that goes into dental work by calling it just a "cleaning" in front of clients. Two veterinary dentists sound off on their favorite terminology—and why.

"In companion animal veterinary practices across the country, dogs and cats receive 'dentals' daily. But the term 'dental' barely explains what's involved. At my practice, we refer to the anesthetized oral exam, dental cleaning and treatment performed under anesthesia, plus any prevention recommendations, as 'oral ATP' (assessment, treatment, prevention). Other practices call this COHAT, or comprehensive oral health assessment and treatment. Either way, it's a lot more than 'doing a dentistry.'"

—excerpted from "The ABCs of veterinary dentistry"
Jan Bellows, DVM, DAVDC, DABVP, FAVD
Owner of All Pets Dental in Weston, Florida

"Among DVMs, I call it an ATP, as it covers all facets of care, including discussing home care and products. In the exam room with clients, I call it a 'diagnostic periodontal exam and cleaning.' I explain why we perform dental radiographs—30 percent of dogs and 40 percent of cats have disease under the gum line that only rads can diagnose. I explain that we chart, probe and assess each tooth, saying, 'There are 42 teeth in a dog and 30 in a cat, and we're performing 42 (or 30) separate exams to evaluate each tooth above and below the gum line.' "

—Barden Greenfield, DVM, DAVDC

Irreversible pulpitis

Irreversible pulpitis can be a sterile event or bacteria-related. It can also be acute, subacute or chronic. If a bacterial infection combines with the hemoglobin breakdown products, iron sulfide is formed and causes teeth to turn dark gray or blue—colors that are practically pathognomonic for irreversible pulpitis. The condition may be acutely painful for the patient in the early stages but can diminish to a dull pain over time.[1]

Radiography

Radiographic evidence of a nonvital tooth includes:

- **A wide pulp cavity in relation to the contralateral tooth**
- **Apical rarefaction (apical lucency)**
- **Narrowing of the pulp cavity because of pulp calcification (localized or generalized)**

Root resorption

Although dental radiography can help you diagnose irreversible pulpitis, a lack of radiographic evidence does not rule it out. In one study, only 42.9% of nonvital teeth showed radiographic evidence of endodontic disease.[1]

Treating irreversible pulpitis

There are two options for treating irreversible pulpitis: root canal therapy and tooth extraction.

The former is highly recommended for strategic teeth (i.e. maxillary and mandibular canines, maxillary fourth premolars and mandibular first molars) as well as for the lateral incisors in large-breed patients. Root canal therapy removes the necrotic pulp and hermetically seals the canal with materials that allow the tooth to remain in the mouth for the life of the patient. The success rate of root canal therapy is over 90%. In many cases, a full-coverage crown is recommended.

While the success rate for surgical extraction is 100% (provided dental radiography is performed after the procedure to confirm complete extraction), it does have limitations and consequences. First, extractions can cause more pain than endodontic therapy and require a longer recovery period. If the patient likes to retrieve objects or chew, removing a strategic tooth may compromise that aspect of its life. Removing a mandibular canine tooth has its own unique set of risks involved as well, such as mandibular fracture or trauma to adjacent incisors and premolars. The tongue may also loll or fall to one side once the canine is removed.

Patients with intrinsically stained teeth deserve better than a wait-and-see approach. Give these pets high-quality care by giving their teeth a closer look.

Reference

1. Hale FA. Localized intrinsic staining of teeth due to pulpitis and pulp necrosis in dogs. *J Vet Dent* 2001;18(1):14-20.

Barden Greenfield, DVM, DAVDC, is the owner of Your Pet Dentist of Memphis and Little Rock.

apoquel®
(oclacitinib tablet)

3.6 mg 5.4 mg 16 mg

Brief Summary of Prescribing Information

For oral use in dogs only

Caution: Federal (USA) Law restricts this drug to use by or on the order of a licensed veterinarian.

Indications: Control of pruritus associated with allergic dermatitis and control of atopic dermatitis in dogs at least 12 months of age.

Dosage and Administration: The dose of APOQUEL (oclacitinib maleate) tablets is 0.18 to 0.27 mg oclacitinib/lb (0.4 to 0.6 mg oclacitinib/kg) body weight, administered orally, twice daily for up to 14 days, and then administered once daily for maintenance therapy. APOQUEL may be administered with or without food.

Dosing Chart

Weight Range (in lb)		Weight Range (in Kg)		Number of Tablets to be Administered		
Low	High	Low	High	3.6 mg Tablets	5.4 mg Tablets	16 mg Tablets
6.6	9.9	3.0	4.4	**0.5**	-	-
10.0	14.9	4.5	5.9	-	**0.5**	-
15.0	19.9	6.0	8.9	**1**	-	-
20.0	29.9	9.0	13.4	-	**1**	-
30.0	44.9	13.5	19.9	-	-	**0.5**
45.0	59.9	20.0	26.9	-	**2**	-
60.0	89.9	27.0	39.9	-	-	**1**
90.0	129.9	40.0	54.9	-	-	**1.5**
130.0	175.9	55.0	80.0	-	-	**2**

Warnings:
APOQUEL is not for use in dogs less than 12 months of age (see **Animal Safety**).
APOQUEL is not for use in dogs with serious infections.
APOQUEL may increase susceptibility to infection, including demodicosis, and exacerbate neoplastic conditions (see **Adverse Reactions** and **Animal Safety**).

Human Warnings:
This product is not for human use. Keep this and all drugs out of reach of children. For use in dogs only. Wash hands immediately after handling the tablets. In case of accidental eye contact, flush immediately with water or saline for at least 15 minutes and then seek medical attention. In case of accidental ingestion, seek medical attention immediately.

Precautions:
APOQUEL is not for use in breeding dogs, or pregnant or lactating bitches.
The use of APOQUEL has not been evaluated in combination with glucocorticoids, cyclosporine, or other systemic immunosuppressive agents.
Dogs receiving APOQUEL should be monitored for the development of infections, including demodicosis, and neoplasia.

Adverse Reactions:
Control of Atopic Dermatitis
In a masked field study to assess the effectiveness and safety of oclacitinib for the control of atopic dermatitis in dogs, 152 dogs treated with APOQUEL and 147 dogs treated with placebo (vehicle control) were evaluated for safety. The majority of dogs in the placebo group withdrew from the 112-day study by Day 16. Adverse reactions reported (and percent of dogs affected) during Days 0-16 included diarrhea (4.6% APOQUEL, 3.4% placebo), vomiting (3.9% APOQUEL, 4.1% placebo), anorexia (2.6% APOQUEL, 0% placebo), new cutaneous or subcutaneous lump (2.6% APOQUEL, 2.7% placebo), and lethargy (2.0% APOQUEL, 1.4% placebo). In most cases, diarrhea, vomiting, anorexia, and lethargy spontaneously resolved with continued dosing. Dogs on APOQUEL had decreased leukocytes (neutrophil, eosinophil, and monocyte counts) and serum globulin, and increased cholesterol and lipase compared to the placebo group but group means remained within the normal range. Mean lymphocyte counts were transiently increased at Day 14 in the APOQUEL group.

Dogs that withdrew from the masked field study could enter an unmasked study where all dogs received APOQUEL. Between the masked and unmasked study, 283 dogs received at least one dose of APOQUEL. Of these 283 dogs, two dogs were withdrawn from study due to suspected treatment-related adverse reactions: one dog that had an intense flare-up of dermatitis and severe secondary pyoderma after 19 days of APOQUEL administration, and one dog that developed generalized demodicosis after 28 days of APOQUEL administration. Two other dogs on APOQUEL were withdrawn from study due to suspected or confirmed malignant neoplasia and subsequently euthanized, including one dog that developed signs associated with a heart base mass after 21 days of APOQUEL administration, and one dog that developed a Grade III mast cell tumor after 60 days of APOQUEL administration. One of the 147 dogs in the placebo group developed a Grade I mast cell tumor and was withdrawn from the masked study. Additional dogs receiving APOQUEL were hospitalized for diagnosis and treatment of pneumonia (one dog), transient bloody vomiting and stool (one dog), and cystitis with urolithiasis (one dog).

In the 283 dogs that received APOQUEL, the following additional clinical signs were reported after beginning APOQUEL (percentage of dogs with at least one report of the clinical sign as a non-pre-existing finding): pyoderma (12.0%), non-specified dermal lumps (12.0%), otitis (9.9%), vomiting (9.2%), diarrhea (6.0%), histiocytoma (3.9%), cystitis (3.5%), anorexia (3.2%), lethargy (2.8%), yeast skin infections (2.5%), pododermatitis (2.5%), lipoma (2.1%), polydipsia (1.4%), lymphadenopathy (1.1%), nausea (1.1%), increased appetite (1.1%), aggression (1.1%), and weight loss (0.7).

Control of Pruritus Associated with Allergic Dermatitis
In a masked field study to assess the effectiveness and safety of oclacitinib for the control of pruritus associated with allergic dermatitis in dogs, 216 dogs treated with APOQUEL and 220 dogs treated with placebo (vehicle control) were evaluated for safety. During the 30-day study, there were no fatalities and no adverse reactions requiring hospital care. Adverse reactions reported (and percent of dogs affected) during Days 0-7 included diarrhea (2.3% APOQUEL, 0.9% placebo), vomiting (2.3% APOQUEL, 1.8% placebo), lethargy (1.8% APOQUEL, 1.4% placebo), anorexia (1.4% APOQUEL, 0% placebo), and polydipsia (1.4% APOQUEL, 0% placebo). In most of these cases, signs spontaneously resolved with continued dosing. Five APOQUEL group dogs were withdrawn from study because of: darkening areas of skin and fur (1 dog); diarrhea (1 dog); fever, lethargy and cystitis (1 dog); an inflamed footpad and vomiting (1 dog); and diarrhea, vomiting, and lethargy (1 dog). Dogs in the APOQUEL group had a slight decrease in mean white blood cell counts (neutrophil, eosinophil, and monocyte counts) that remained within the normal reference range. Mean lymphocyte count for dogs in the APOQUEL group increased at Day 7, but returned to pretreatment levels by study end without a break in APOQUEL administration. Serum cholesterol increased in 25% of APOQUEL group dogs, but mean cholesterol remained within the reference range.

Continuation Field Study
After completing APOQUEL field studies, 239 dogs enrolled in an unmasked (no placebo control), continuation therapy study receiving APOQUEL for an unrestricted period of time. Mean time on this study was 372 days (range 1 to 610 days). Of these 239 dogs, one dog developed demodicosis following 273 days of APOQUEL administration. One dog developed dermal pigmented viral plaques following 266 days of APOQUEL administration. One dog developed a moderately severe bronchopneumonia after 272 days of APOQUEL administration; this infection resolved with antimicrobial treatment and temporary discontinuation of APOQUEL. One dog was euthanized after developing abdominal ascites and pleural effusion of unknown etiology after 450 days of APOQUEL administration. Six dogs were euthanized because of suspected malignant neoplasms: including thoracic metastatic, abdominal metastatic, splenic, frontal sinus, and intracranial neoplasms, and transitional cell carcinoma after 17, 120, 175, 49, 141, and 286 days of APOQUEL administration, respectively. Two dogs each developed a Grade II mast cell tumor after 52 and 91 days of APOQUEL administration, respectively. One dog developed low grade B-cell lymphoma after 392 days of APOQUEL administration. Two dogs each developed an apocrine gland adenocarcinoma (one dermal, one anal sac) after approximately 210 and 320 days of APOQUEL administration, respectively. One dog developed a low grade oral spindle cell sarcoma after 320 days of APOQUEL administration.

To report suspected adverse events, for technical assistance or to obtain a copy of the MSDS, contact Zoetis Inc. at 1-888-963-8471 or www.zoetis.com.

For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or online at http://www.fda.gov/AnimalVeterinary/SafetyHealth.

Storage Conditions:
APOQUEL should be stored at controlled room temperature between 20° to 25°C (68° to 77°F) with excursions between 15° to 40°C (59° to 104°F).

How Supplied:
APOQUEL tablets contain 3.6 mg, 5.4 mg, or 16 mg of oclacitinib as oclacitinib maleate per tablet. Each strength tablets are packaged in 20 and 100 count bottles. Each tablet is scored and marked with AQ and either an S, M, or L that correspond to the different tablet strengths on both sides.

NADA #141-345, Approved by FDA

Made in Italy

zoetis

Distributed by:
Zoetis Inc.
Kalamazoo, MI 49007

February 2013 428007800A&P

APOQUEL® (oclacitinib tablet) and CONVENIA® (cefovecin sodium)

A Winning Duo for Canine Skin Disease

A case study: First-line defense against canine pruritus with secondary pyoderma

Almost 70 percent of dog owners said their dog has experienced scratching, itching or other listed* symptoms in the past year,[1] according to an online survey conducted by Harris Poll and commissioned by Zoetis in 2015. As a veterinary professional, you probably aren't surprised by this number, which is consistent with industry analyses showing that skin allergies are the top medical condition prompting canine veterinary visits.[2,3]

Yet, millions of dogs suffering from skin allergies never see a veterinarian for treatment. Many of their owners, instead, try to diagnose the condition themselves and seek relief with over-the-counter remedies that often don't work. This enables the itching to progress and cause further damage. In fact, research shows that up to 66 percent of dogs with atopic dermatitis have a concurrent yeast or bacterial skin infection.[4]

The escalation of itch can create sleepless nights and an aversion to playing or going for walks, significantly affecting the dogs' quality of life and disrupting the close bond with their families.

An example: Allergic itch and secondary pyoderma

Gunner, a playful 12-year-old Golden Retriever, is an example of how devastating pruritus accompanied by secondary pyoderma can be. Whitney Stringman, Gunner's owner, noticed he was scratching intensely. Gunner's condition escalated to a large hot spot in a matter of days, so Stringman took him to Dr. John Hutchens, a veterinarian at Westmoreland & Slappey Animal Hospital in Perry, Georgia.

Dr. Hutchens knew that quickly treating both the severe allergic itch and the secondary pyoderma was crucial to helping Gunner — and to relieving his client's distress. That's why he turned to APOQUEL® (oclacitinib tablet) for Gunner's allergic itch and CONVENIA® (cefovecin sodium) for Gunner's pyoderma.

"Because of the severity of Gunner's case, I took no chances with our treatment and gave Gunner his first dose of APOQUEL while he was still in my office," Dr. Hutchens said. "CONVENIA was a great option for Gunner's hot spots because of the high rate of treatment success with only one injection; also, Whitney wouldn't have to worry about administering an antibiotic at home."

> **"APOQUEL and CONVENIA are the new standard of care, in my opinion. With the anti-itch therapy as well as the antibiotic therapy, you're taking care of both conditions at the same time very effectively and quickly."**
>
> — John Hutchens, DVM

After the veterinary visit, Stringman felt confident in the treatment plan when she saw the rapid results.

"Once I left the clinic knowing Gunner had received the first dose of APOQUEL and the CONVENIA injection — and saw the relief in Gunner — I felt relief myself," she said.

Stringman reported that within hours, Gunner wasn't chewing or scratching as much. He was back to playing with his family and acting like himself again.

Because of what Dr. Hutchens experienced with Gunner and other cases, he now relies on these medications as his first-line treatment for dogs with acute and seasonal allergies that present with secondary pyoderma.

To quickly relieve Gunner's suffering from severe allergic itch and secondary pyoderma, Dr. Hutchens prescribed APOQUEL and CONVENIA.

Creating real-world success with a winning duo

"APOQUEL and CONVENIA are the new standard of care, in my opinion," Dr. Hutchens said. "With the anti-itch therapy as well as the antibiotic therapy, you're taking care of both conditions at the same time very effectively and quickly."

APOQUEL, the first game-changing treatment for canine allergic itch in more than a decade, is uniquely targeted to stop itch with minimal

negative impact on immune functions. It inhibits the function of a variety of pruritogenic and proinflammatory allergic cytokines that are dependent on JAK1 and JAK3 enzyme activity.[5]

While APOQUEL stops the itch at the source so you can provide fast relief to patients as you diagnose the underlying cause of the pruritus, CONVENIA works quickly to resolve the infection with sustained antibacterial drug concentrations that last for 14 days.** In a clinical study, 86 percent of dogs needed one injection.[6]

Together, APOQUEL and CONVENIA allow the dog and the pet owner to get back to their life together — and reinforce their trust in the outstanding care you and your clinic team provide during each and every visit.

An opportunity: Educating clients about the itch cycle

Today, we not only understand more about the canine itch cycle, but veterinarians also have access to treatment options to make a vital difference for Gunner and other dogs. Armed with these resources, there is no better time to bring itch to the forefront of your discussions with pet owners.

These conversations help clients understand the importance of providing itch relief with APOQUEL before scratching causes further damage. However, if a secondary pyoderma is present, you can turn to CONVENIA to deliver first-time treatment success.

Seeing Gunner's rapid relief reinforced Whitney Stringman's confidence in Dr. Hutchens' treatment plan, which featured APOQUEL and CONVENIA.

To see Gunner's story, watch videos about other APOQUEL cases and download in-clinic educational resources, visit apoquelexperience.com/vetted.

At convenia.com, you will find clinical case studies and videos showing what veterinarians and pet owners are saying about CONVENIA.

apoquel® (oclacitinib tablet)

convenia® cefovecin sodium

APOQUEL IMPORTANT SAFETY INFORMATION:
Do not use APOQUEL in dogs less than 12 months of age or those with serious infections. APOQUEL may increase the chances of developing serious infections, and may cause existing parasitic skin infestations or pre-existing cancers to get worse. APOQUEL has not been tested in dogs receiving some medications including some commonly used to treat skin conditions such as corticosteroids and cyclosporines. Do not use in breeding, pregnant, or lactating dogs. Most common side effects are vomiting and diarrhea. APOQUEL has been used safely with many common medications including parasiticides, antibiotics and vaccines. See Brief Summary of full Prescribing Information on page 23.

CONVENIA IMPORTANT SAFETY INFORMATION:
People with known hypersensitivity to penicillin or cephalosporins should avoid exposure to CONVENIA. Do not use in dogs or cats with a history of allergic reactions to penicillins or cephalosporins. Side effects for both dogs and cats include vomiting, diarrhea, decreased appetite/anorexia and lethargy. See Brief Summary of full Prescribing Information on page 26.

*Sixty-nine percent of dog owners said their dog has experienced scratching or itching, licking of feet/paws, head shaking/ear rubbing, rubbing on carpet or furniture, or biting/chewing in the last year.

**In clinical studies, a single injection of CONVENIA was clinically equivalent to a 14-day antibiotic regimen.

References:
[1]Survey Methodology: This survey was conducted online within the United States by Harris Poll on behalf of Zoetis from March 30 – April 26, 2015, among 4,052 adults ages 18 and older (among which, 1,665 are dog owners). This online survey is not based on a probability sample and, therefore, no estimate of theoretical sampling error can be calculated. For complete survey methodology, including weighting variables, contact Lindsey Goodman at lgoodman@archermalmo.com.
[2]Most common medical conditions for dogs and cats. Nationwide. http://www.prnewswire.com/news-releases/most-common-medical-conditions-for-dogs-and-cats-300418097.html. Accessed March 13, 2017.
[3]Nationwide reveals the 10 most common medical conditions for dogs and cats. Nationwide. https://press8.petinsurance.com/articles/2016/march/nationwide-reveals-the-10-most-common-medical-conditions-for-dogs-and-cats. Accessed March 13, 2017.
[4]Bizikova P, Santoro D, Marsella R, Nuttall T, Eisenschenk MN, Pucheu-Haston, CM. Review: Clinical and histological manifestations of canine atopic dermatitis. *Vet Dermatol.* 2015;26(2):79-e24.
[5]Gonzales AJ, Bowman JW, Fici GJ, Zhang M, Mann DW, Mitton-Fry M. Oclacitinib (Apoquel®) is a novel Janus kinase inhibitor with activity against cytokines involved in allergy. *J Vet Pharmacol Ther.* 2014;37(4):317-324.
[6]Six R, Cherni J, Chesebrough R, et al. Efficacy and safety of cefovecin in treating bacterial folliculitis, abscesses, or infected wounds in dogs. *J Am Vet Med Assoc.* 2008;233(3):433-439.

The animal health information contained herein is provided for educational purposes only and is not intended to replace discussions with an animal healthcare professional. Testimonials represent individual experience only and the experiences and opinions herein may be unique to the patient and the speaker. Individual results may vary considering the unique characteristics of the patient.

zoetis

HELPFUL STUFF

Steer docs in the right direction

Lucy Breckenridge, one of the veterinary assistants at our busy six-doctor practice, came up with a brilliant idea to help our veterinarians know where to go next on hectic, appointment-heavy days in the hospital. She made a series of fun exam room markers, one for each doctor and one that says, "In car." If a technician or assistant has admitted a patient to an exam room and needs to move on to the next task, she hangs the doctor's designated marker on the door. When the doctor sees the marker, he or she knows that's the room to attend to next. If the client and patient are waiting in the car to avoid the stress of the waiting room, we add the "In car" tag. It works great!

—Ali Harris, DVM
Milton Veterinary Hospital, Milton, Vermont

60 SECONDS OR LESS:

Social media must-haves for veterinary practice

CVC educator Caitlin DeWilde, DVM, lays out social media and website needs for the beginner, the journeyman and the advanced veterinary practice manager or owner. Here's how it breaks down.

Must-haves for an internet presence:

Google

> A Google Business listing
> A practice Facebook page

Nice-to-haves for a cooler style:

yelp

Next-level internet advertising:

> Google AdWords
> Advertising on Facebook, Twitter and Instagram

A cool Snapchat tip!

Gather up your technicians and assistants who are Snapchat pros. Ask them to use it to share funny, adorable "what happens in the back"-type snaps with your clients.

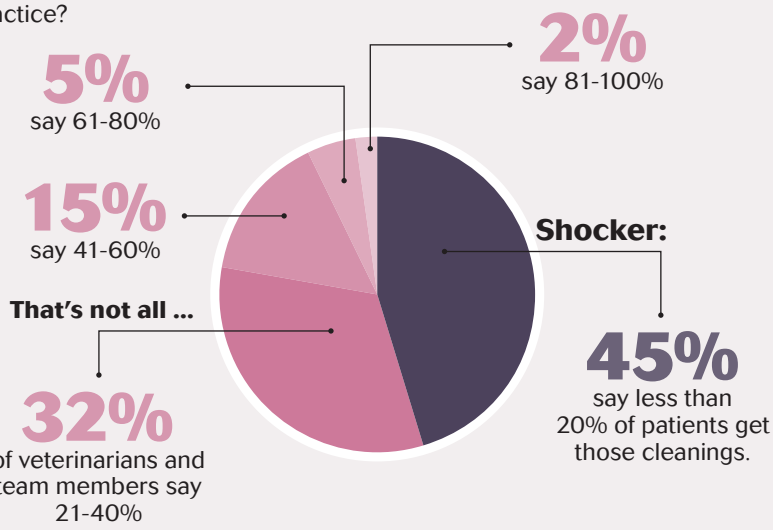
Another hint ... find more social media learning opportunities at **thecvc.com**

CVC convention

What you don't know about veterinary dental care may shock you

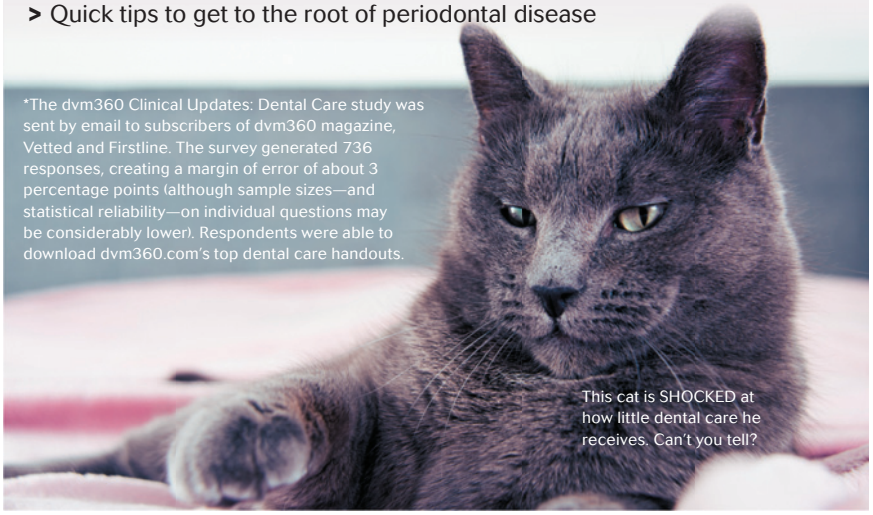
How many pets are getting adequate dental care at your practice?

As a part of a recent survey*, we asked:
What percentage of active patients who could benefit from dental care do you believe receive an annual professional dental cleaning at your practice?



Are you sitting there saying, well, what can I do? Turns out, you can be the change you want to see in ... er, the mouths of pets everywhere. Here's a quick rundown of resources to help (get them by scanning the code).

- > 3 reasons cat owners say **"No"** to dental procedures (and how to fix that)
- > 6 stinky dental recommendations you might be making (and how to fix them)
- > **"That'll be HOW MUCH?!"** Pro tips to present a dental treatment plan
- > Quick tips to get to the root of periodontal disease

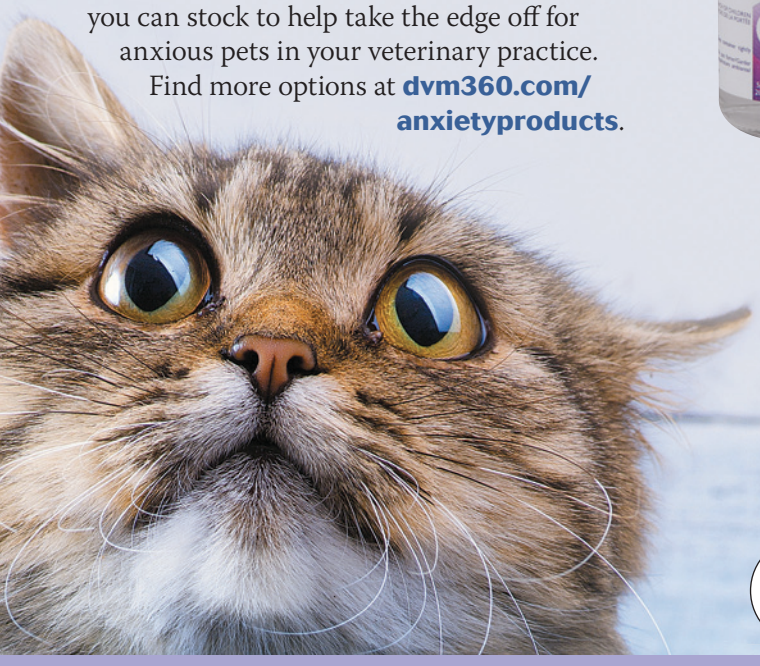

This cat is SHOCKED at how little dental care he receives. Can't you tell?

*The dvm360 Clinical Updates: Dental Care study was sent by email to subscribers of dvm360 magazine, Vetted and Firstline. The survey generated 736 responses, creating a margin of error of about 3 percentage points (although sample sizes—and statistical reliability—on individual questions may be considerably lower). Respondents were able to download dvm360.com's top dental care handouts.

HOW TO GET PETS + VETS ≠ STRESS

Take anxiety out of the equation with these veterinary products.

You've had your head in the sand if you haven't heard of the Fear Free movement, an effort to override the automatic pet panic of "something bad is gonna happen" when visiting the vet. Over the last several years, we've outlined many processes and procedures—even mindsets—you can modify to help abate the terror at **dvm360.com/fearfree**. Here's a quick look at what you can stock to help take the edge off for anxious pets in your veterinary practice. Find more options at **dvm360.com/anxietyproducts**.



1 FELIWAY
"Smells like mine—smells like home." Mimicking the pheromone cats spread through their environment by rubbing their face on everything, Feliway (Ceva Animal Health) sprayed throughout the exam room can help ease the anxiety of separation from the cat carrier and more. Available as a spray, diffuser or wipes.

2 ADAPTIL
Based on the pheromone doggie moms emit to their newborn pups to help them not fear the alarming new world now surrounding them, Adaptil (Ceva Animal Health) will bring dogs into that comfy state-of-mind in your exam room. Available as a collar, spray or wipes.

3 ANXITANE
Want a pill to put on the case? Give anxious dogs or cats Anxitane (Virbac), a chewable tablet that contains the amino acid L-theanine (the same one found in that soothing green tea you drink) to stave off the fear of those four walls built for the care—not the scare—of our four-footed friends.

4 CALMZ ANXIETY RELIEF SYSTEM
This adjustable vest is specially designed to concentrate on acupressure points along the canine spine, delivering calming music, tones and vibrations. In this case, you can literally dress dogs for success—that is, less stress.

KONSTANTTIN/SHUTTERSTOCK.COM

PAIN MANAGEMENT NEVER TASTED SO GOOD

Contact your veterinary products distributor or Norbrook, Inc. at (888) 705-0408 for information and availability

NEW!
Liver Flavored Chewable Now Available

FEATURES:

- Bioequivalent to the pioneer product, Rimadyl® Chewables (carprofen)
- Less expensive than Rimadyl® Chewables, offering significant savings and improved clinic profit potential
- Flexible dosing: Administer to dogs at 2 mg/lb of body weight daily or divided and administered as 1 mg/lb twice daily

- Available in 25 mg, 75 mg and 100 mg strengths
- Available in 30, 60 and 180 count bottles

CARPRIEVE® CHEWABLE (carprofen) TABLETS

www.norbrook.com

IMPORTANT SAFETY INFORMATION: As a class, NSAIDS may be associated with gastrointestinal, kidney and liver side effects. These are usually mild, but may be serious. Dog owners should discontinue therapy and contact their veterinarian immediately if side effects occur. Evaluation for pre-existing conditions and regular monitoring are recommended for dogs on any medication, including Carprieve. Use with other NSAIDS or corticosteroids should be avoided. See full product labeling for full product information on page 39.

0517-595-I01B

Norbrook®

Let there be (natural) light

Pet Emergency Clinic & Referral Center of Spokane, Washington, sheds some light on what makes their new space great.

Research has shown that giving veterinary team members and patients access to natural light not only improves their mood, but may help patients heal faster. In the veterinary industry, efficiency is key. And when it comes to efficient specialty clinics, the 2017 Veterinary Economics Hospital Design Competition's Specialty Practice Hospital of the Year delivers. Michael O'Dea, DVM, hospital manager and ER veterinarian at Pet Emergency Clinic & Referral Center (PEC), gives an in-depth tour of the facility and talks about the bells and whistles this specialty clinic has to offer, all while building in plenty of natural light.

Exam room

All 10 exam rooms at PEC have two doors—one for clients and one for staff. This allows clients to easily exit back into the lobby and staff members to sneak out the back. These exam rooms feature City View tile that is durable and easy to clean, a radiograph illuminator, overhead cabinet and workstation storage and colorful pet portraits. They also contain windows that invite lots of natural light to the space.

"On sunny days, too much light can inhibit seeing computer screens, so the last several months we've been upgrading the windows," Dr. O'Dea says.

Adding a layer of "window frosting" helps keep the light situation under control.

Surgery suite

In a referral-only specialty clinic, a well-designed surgery suite is essential for the surgical group. In this room, surgeons operate on many soft tissue surgeries, tumor removals, bone fracture surgeries and more. Tall windows allow plenty of controlled daylight into the two-table surgery suite.

Treatment

The old clinic did not have an abundance of natural light and now (behold!) there are skylights in the treatment area. And that's not the only improvement.

"In the new building the kennels are in the treatment area, with plenty of cages. We also have more oxygen capacity for critically ill patients," Dr. O'Dea says.

The team wanted to keep the treatment zone as open as possible. From the charting stations, the team members can see all the way through treatment and from treatment into surgery.

Lobby

Tongue-and-groove pine wood vaulted ceilings serve both structural and aesthetic roles, giving the clinic an open, airy feel. Large windows surround the lobby, allowing natural light to help soothe anxious pets and clients. Modern circular pendant lighting illuminates the space after the sun sets.

"We didn't set out to build the Taj Mahal of veterinary clinics," says Dr. O'Dea. "But you look at the grand space of the new lobby and that's almost what it feels like."

ALL PHOTOS COURTESY OF TIM MURPHY, FOTO IMAGERY

CLEANING EQUIPMENT & SUPPLIES

CREDIT CARD PROCESSING

REDUCE YOUR CREDIT CARD PROCESSING FEES

- **FREE Placement, Credit Card Terminal**
  Wireless / Land Line / High Speed / Dial-Up
- **Easy Setup - Quick Approval**
- **Integrate with your current POS**
- **Free Paper****
- **No set-up fee**
- **Check Services Available**
- NAB will reimburse your business up to **$295****
  if you have an early termination fee with your current processor

WHOLESALE RATES
INTERCHANGE % RATES AS LOW AS
.05%*

PROCESS CREDIT CARDS ON YOUR **SMARTPHONE**

NEXT DAY FUNDING **AVAILABLE**

BECOME **EMV READY**

NFC & EMV ENABLED

FREE TERMINAL & PIN PAD or WIRELESS TERMINAL

WIFI TABLET TERMINAL

ENROLL NOW - CALL A SPECIALIST TODAY!

866-481-4604

NorthAmerican BANCARD

www.nynab.com

©2017 North American Bancard is a registered ISO of Wells Fargo Bank, N.A., Walnut Creek, CA, and The Bancorp Bank, Philadelphia, PA. American Express may require separate approval. * Durbin regulated Check Card percentage rate. A per transaction fee will also apply. **Some restrictions apply. This advertisement is sponsored by an ISO of North American Bancard. Apple Pay is a trademark of Apple Inc.

MOBILE VETERINARY

La Boit
Specialty Vehicles Inc.

Coming Soon….
to a Neighborhood like yours!!!

visit us on facebook

800-776-9984
www.laboit.com

Find it all here.
dvm360.com

Get more product information *online*

Researching a purchase? **dvm360.com** offers hundreds more product listings. Just visit **dvm360.com/products**

Search for the company name you see in each of the ads in this section for FREE INFORMATION!

DENTAL PRODUCTS

ANESTHESIA EQUIPMENT

ARCHITECTS/BUILDERS

ARCHITECTS/BUILDERS

CAT ENCLOSURES

DIAGNOSTIC IMAGING

DIAGNOSTIC TESTING

MEDICAL EQUIPMENT

MEDICAL EQUIPMENT

PET ID PRODUCTS

TAGS

RECRUITMENT

Georgia

Webb Animal Clinic of Rincon, GA is seeking a full-time veterinarian to join our incredible team. Rincon is a rapidly growing suburb located only twenty five minutes from historic Savannah and a few minutes further are the coastal beaches of Georgia and South Carolina. Our practice consists of a well trained staff that strives to provide superb customer service and compassionate patient care. Our hospital is proud to offer a wide array of services to the surrounding communities.

Our hospital has seven examination rooms to include a privacy/consultation room, and our latest addition, our NO dogs allowed, pheromone enriched cat room. Our diagnostic tools include a complete inhouse Abaxis lab station with chemistry, cbc, electrolyte, blood & respiratory gasses, and clotting time capabilities, tonopen, Cuattro digital radiology, LogiqE ultrasound with color flow and continual wave technology. Patient care and monitoring equipment include; multiple Baxter autostart IV pumps, , IV fluid warmers, cardell blood pressure monitors, Nihon Kohden four lead ECG machine with printer, Syringe pump, and a highly skilled critical care technician that stays with the patients all day. Our large state-of-the-art surgery suite is equipped with Engler positive pressure anesthesia delivery systems, pulse ox, ecg, bp monitor, esophageal stethoscope, patient warming system, and a highly trained surgical assistant.

There are many case opportunities for advanced internal medicine, soft tissue, and orthopedic surgeries. Benefits beyond clinical advancement include competitive salary and bonus system (pro-sal), paid licensing fees and organizational dues, paid vacation, 401k, profit share plan, allowances for CE and health insurance.

Candidate must be self motivated, have excellent communication skills, and the ability to work in a very fast paced environment but most of all; be compassionate and courteous. If you feel you are a right fit for our practice please email Dr. Joe McKenzie at jhmdvm@comcast.net, call Shay Williams, Hospital Manager at 912.429.1192, or email webbanimalcliniceff@yahoo.com.

PRACTICES FOR SALE OR LEASE

National

PRACTICE SALES ADVISORS
Veterinary clinics for sale
Under-contract in 5 months! Baltimore, MD grossing $1.5M.
Lynchburg, VA beautiful facility, owner motivated.
NEW LISTINGS PA & FL, call today!
McKinney, TX- grossing $1M, excellent location.
Tyler, TX grossing $650k, RE only $250K.
SOLD Atlanta, GA grossing $1M
Athens, GA grossing $700K, associate in place.
SOLD Knoxville, TN grossing $2M
SOLD Tuscaloosa, AL grossing $1.2M
Santa Fe, NM grossing $550K, 2600SF facility only $350K.
Albuquerque, NM grossing $840K, recently remodeled.
FREE annual valuation updates for our clients.
Visit www.practicesalesadvisors.com for NEW Listings!
Call us! 844.4.PSA.HELP (844.477.2435)

North Carolina

AZ, Maricopa County: SA, on major thoroughfare.
CA, Butte County: High-Grossing 3,500sf SA.
CA, Glenn County: High-Grossing 4,500sf SA.
CA, Santa Barbara County: Profitable 2,700sf SA.
CA, Orange County: High-Grossing 5,000sf SA.
CO, Boulder County: SA leasehold. Growth potential.
FL, Pinellas County: Profitable Feline practice.
IL, Central: Emergency practice, 1,880sf leasehold.
IL, DuPage County: 3,893sf SA on +/-.46 acres.
IA, Hardin County: 3,696sf SA w/RE. Eager to sell!
KY, Southern: 1,860sf companion practice w/RE.
MO, St. Louis: Profitable, growing Feline. 2,200sf.
NC, Northwestern: High-Grossing Equine. 6,250sf w/RE.
NC, Stokes County: 3,000sf SA w/RE. Strong growth.
TX, Northeastern: High-Grossing SA w/equine facility.
VA, Albemarle County: High-Grossing Emergency practice.
WA, Benton County: 5,850sf practice w/2,742sf utilized.
PS Broker, 800.636.4740, psbroker.com

Brief Summary: Before using please consult the product onsert, a summary of which follows.

ANADA 200-595, Approved by FDA

Carprieve® (carprofen)
Chewable Tablets

Non-steroidal anti-inflammatory drug

For oral use in dogs only

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

INDICATIONS: Carprieve is indicated for the relief of pain and inflammation associated with osteoarthritis and for the control of postoperative pain associated with soft tissue and orthopedic surgeries in dogs.

CONTRAINDICATIONS: Carprieve should not be used in dogs exhibiting previous hypersensitivity to carprofen.

WARNINGS: Keep out of reach of children. Not for human use. Consult a physician in cases of accidental ingestion by humans. **For use in dogs only.** Do not use in cats.

All dogs should undergo a thorough history and physical examination before initiation of NSAID therapy. Appropriate laboratory tests to establish hematological and serum biochemical baseline data prior to, and periodically during, administration of any NSAID should be considered. **Owners should be advised to observe for signs of potential drug toxicity.**

PRECAUTIONS: As a class, cyclooxygenase inhibitory NSAIDs may be associated with gastrointestinal, renal, and hepatic toxicity. The most frequently reported effects have been gastrointestinal signs. Events involving suspected renal, hematologic, neurologic, dermatologic, and hepatic effects have also been reported. Patients at greatest risk for renal toxicity are those that are dehydrated, on concomitant diuretic therapy, or those with renal, cardiovascular, and/or hepatic dysfunction. Concurrent administration of potentially nephrotoxic drugs should be approached cautiously, with appropriate monitoring. Concomitant use of carprofen with other anti-inflammatory drugs, such as other NSAIDs or corticosteroids, should be avoided because of the potential increase of adverse reactions, including gastrointestinal ulcerations and/or perforations.

Carprieve is not recommended for use in dogs with bleeding disorders (e.g., Von Willebrand's disease), as safety has not been established in dogs with these disorders. The safe use of Carprieve in animals less than 6 weeks of age, pregnant dogs, dogs used for breeding purposes, or in lactating bitches has not been established.

Due to the liver flavoring contained in Carprieve chewable tablets, store out of the reach of dogs and in a secured area.

INFORMATION FOR DOG OWNERS:
Carprieve, like other drugs of its class, is not free from adverse reactions. Owners should be advised of the potential for adverse reactions and be informed of the clinical signs associated with drug intolerance. Adverse reactions may include decreased appetite, vomiting, diarrhea, dark or tarry stools, increased water consumption, increased urination, pale gums due to anemia, yellowing of gums, skin or white of the eye due to jaundice, lethargy, incoordination, seizure, or behavioral changes. **Serious adverse reactions associated with this drug class can occur without warning and in rare situations result in death (see Adverse Reactions). Owners should be advised to discontinue Carprieve therapy and contact their veterinarian immediately if signs of intolerance are observed.**

ADVERSE REACTIONS: During investigational studies for the caplet formulation with twice daily administration of 1 mg/lb, no clinically significant adverse reactions were reported. Some clinical signs were observed during field studies (n=297) which were similar for carprofen caplet- and placebo-treated dogs. Incidences of the following were observed in both groups: vomiting (4%), diarrhea (4%), changes in appetite (3%), lethargy (1.4%), behavioral changes (1%), and constipation (0.3%). The product vehicle served as control. There were no serious adverse events reported during clinical field studies with once daily administration of 2 mg/lb. The following categories of abnormal health observations were reported. The product vehicle served as control.

Percentage of Dogs with Abnormal Health Observations Reported in Clinical Field Study (2 mg/lb once daily)

Observation	Carprofen (n=129)	Placebo (n=132)
Inappetence	1.6	1.5
Vomiting	3.1	3.8
Diarrhea/Soft stool	3.1	4.5
Behavior change	0.8	0.8
Dermatitis	0.8	0.8
PU/PD	0.8	--
SAP increase	7.8	8.3
ALT increase	5.4	4.5
AST increase	2.3	0.8
BUN increase	3.1	1.5
Bilirubinuria	16.3	12.1
Ketonuria	14.7	9.1

Clinical pathology parameters listed represent reports of increases from pre-treatment values; medical judgment is necessary to determine clinical relevance. During investigational studies of surgical pain for the caplet formulation, no clinically significant adverse reactions were reported. The product vehicle served as control.

Percentage of Dogs with Abnormal Health Observations Reported in Surgical Pain Field Studies with Caplets (2 mg/lb once daily)

Observation*	Carprofen (n=148)	Placebo (n=149)
Vomiting	10.1	13.4
Diarrhea/Soft stool	6.1	6.0
Ocular disease	2.7	0
Inappetence	1.4	0
Dermatitis/Skin lesion	2.0	1.3
Dysrhythmia	0.7	0
Apnea	1.4	0
Oral/Periodontal disease	1.4	0
Pyrexia	0.7	1.3
Urinary tract disease	1.4	1.3
Wound drainage	1.4	0

* A single dog may have experienced more than one occurrence of an event.

During investigational studies for the chewable tablet formulation, gastrointestinal signs were observed in some dogs. These signs included vomiting and soft stools.
Post-Approval Experience:
Although not all adverse reactions are reported, the following adverse reactions are based on voluntary post-approval adverse drug experience reporting.
The categories of adverse reactions are listed in decreasing order of frequency by body system.

Gastrointestinal: *Vomiting, diarrhea, constipation, inappetence, melena, hematemesis, gastrointestinal ulceration, gastrointestinal bleeding, pancreatitis.*

Hepatic: *Inappetence, vomiting, jaundice, acute hepatic toxicity, hepatic enzyme elevation, abnormal liver function test(s), hyperbilirubinemia, bilirubinuria, hypoalbuminemia. Approximately one-fourth of hepatic reports were in Labrador Retrievers.*

Neurologic: *Ataxia, paresis, paralysis, seizures, vestibular signs, disorientation.*
Urinary: *Hematuria, polyuria, polydipsia, urinary incontinence, urinary tract infection, azotemia, acute renal failure, tubular abnormalities including acute tubular necrosis, renal tubular acidosis, glucosuria.*

Behavioral: *Sedation, lethargy, hyperactivity, restlessness, aggressiveness.*

Hematologic: *Immune-mediated hemolytic anemia, immune-mediated thrombocytopenia, blood loss anemia, epistaxis.*

Dermatologic: *Pruritus, increased shedding, alopecia, pyotraumatic moist dermatitis (hot spots), necrotizing panniculitis/vasculitis, ventral ecchymosis.*

Immunologic or hypersensitivity: *Facial swelling, hives, erythema.*

In rare situations, death has been associated with some of the adverse reactions listed above.
To report a suspected adverse reaction call 1-866-591-5777.

DOSAGE AND ADMINISTRATION: Always provide Client Information Sheet with prescription. Carefully consider the potential benefits and risk of Carprieve and other treatment options before deciding to use Carprieve. Use the lowest effective dose for the shortest duration consistent with individual response. The recommended dosage for oral administration to dogs is 2 mg/lb of body weight daily. The total daily dose may be administered as 2 mg/lb of body weight once daily or divided and administered as 1 mg/lb twice daily. For the control of postoperative pain, administer approximately 2 hours before the procedure.
See product insert for complete dosing and administration information.

STORAGE: Store 25 mg and 75 mg Carprieve chewable tablets at 59-86°F (15-30°C). Store 100 mg Carprieve chewable tablets at controlled room temperature, 68-77°F (20-25°C). Use half-tablet within 30 days.

HOW SUPPLIED: Carprieve chewable tablets are scored, and contain 25 mg, 75 mg, or 100 mg of carprofen per tablet. Each tablet size is packaged in bottles containing 30, 60, or 180 tablets.

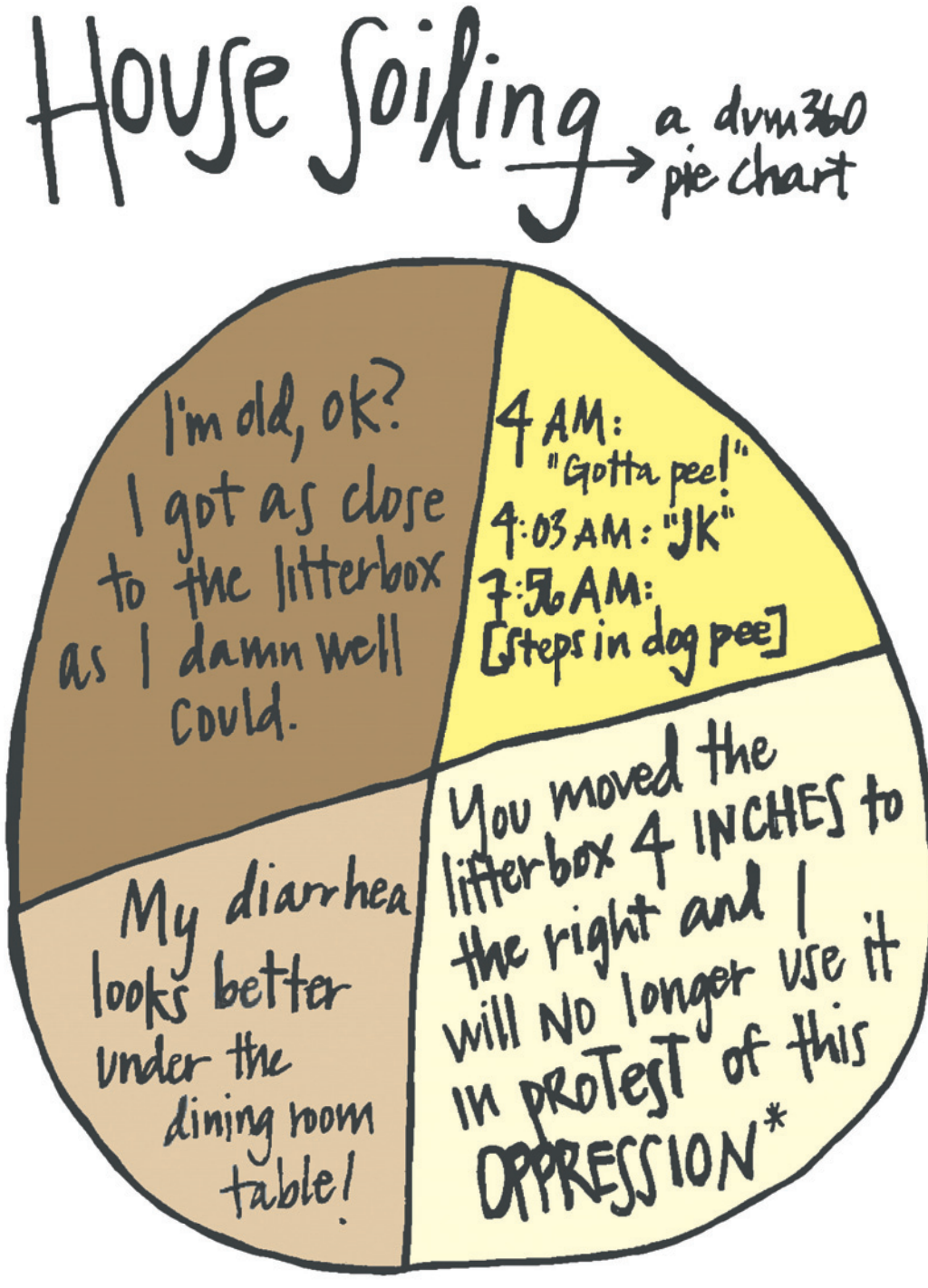
Made in the UK.

Manufactured by:
Norbrook Laboratories Limited, Newry, BT35 6PU, Co. Down, Northern Ireland

Carprieve® and the Norbrook logos are registered trademarks of Norbrook Laboratories Limited

I01 March 2017

Norbrook®



***In case you couldn't tell, this is a joke.**

And although results of one large survey say that 66% of cat owners think their cats soiled outside of the litterbox to spite them,[1] *you know better*. (To be clear, we don't fault you for giggling.)

For more resources to help clients understand and deal with inappropriate elimination in their pets, flip back to **page 12**, or visit **dvm360.com/felineeliminate**.

1. KASS PH, NEW JC JR, SCARLETT JM, ET AL. UNDERSTANDING ANIMAL COMPANION SURPLUS IN THE UNITED STATES: RELINQUISHMENT OF NON-ADOPTABLES TO ANIMAL SHELTERS FOR EUTHANASIA. *J APPL ANIM WELFARE SCI* 2001;4:237-248.

PNC BANK

WORK WITH A DEDICATED HEALTHCARE BANKER WHO UNDERSTANDS YOUR BUSINESS.

As a veterinarian and business owner, you know it's often the little things that make the biggest difference. That's why you're always looking for ways to improve your practice. PNC's dedicated Healthcare Business Bankers can offer you guidance and cash flow tools to help you make your business better. Whether you're managing payables and receivables, purchasing new equipment or expanding your services, talking to a banker who knows your practice is another small change that can make a big impact.

CALL A HEALTHCARE BUSINESS BANKER AT 877-566-1355 • PNC.COM/HCPROFESSIONALS

For every GI problem, there's a solution

i/d® Low Fat	i/d® Stress	i/d® Sensitive	i/d®
Clinically tested to lower serum triglycerides, a risk factor for pancreatitis	FIRST and ONLY GI nutrition to help alleviate stress-related GI upset in dogs up to 30 lbs	Single nutritional solution to manage food sensitivities with GI upset	Clinically proven nutrition to help resolve diarrhea in as little as 3 days

Also available for cats

Nothing helps you work harder on tough GI cases than the power of Prescription Diet® GI solutions

For more information, talk to your Hill's Representative.

Hill's PRESCRIPTION DIET®

HillsVet.com