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Turn your hospital into a "spaw"

Puppy cuddles and other happiness you'll get from Fetch

Fetch, a dvm360 conference, brings you interactive elements that make your conference experience more than just CE.



By Gabrielle Roman

Here's a look at some of what we did at Kansas City CVC—now Fetch!—to do some emotional nurturing in addition to the educational nurturing.

Pics or it didn't happen

Several selfie stations were set up around the exhibit hall to give people the chance to show they were at the conference. The four pictures taken by the booth generate a short gif that can be emailed, texted or shared to social media.

How much is that puppy in the window?

KC Pet Project brought along nine adorable puppies for cuddles and adoption. By the end of conference, all the puppies had been adopted and given a lot of visitors to the exhibit hall something to smile about. Maybe kittens next year?

Get drawn as your patronus

Caricature artists set up in the exhibit hall to bring a little something extra to the mix. And these artists brought a twist—they'd draw you as an animal instead.

They catch Frisbees so you don't have to

Kansas City featured agility dogs and Frisbee dogs showing off their skills, which included some pretty impressive forms of balance and flipping. And what better way to tie in with the sporting dog CE track than to go see them practice in the flesh?

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THE PICKS

(what we care about now)

Harold "Catman" Sims is knee-deep in "articats" at the American Museum of the Housecat in Sylva, North Carolina.



Oldies, oddities and kitties

By Sarah Dowdy, Associate Content Specialist

The American Museum of the Housecat is a cat lover's paradise—and not just because you'll find over 5,000 items of feline art, toys and collectibles. All profits go to funding a no-kill, cat-only adoption center and sanctuary.



Fun mewseum fact!

Harold Sims named one of the rooms in the museum after Dr. A. C. Daniels, a veterinarian in the 1800s whom Sims credits as being one of the first to advocate for veterinary care for cats.

When you call yourself Harold "Catman" Sims, you'd better live up to the name. And Sims doesn't disappoint.

A former biology teacher, Sims found a cure for retirement boredom by volunteering at a local animal shelter, where he found that he really enjoyed working with cats—a lot.

"I can't think of anything bad about cats," says Sims. "They're beautiful and independent. They're the perfect animal."

When he learned that the shelter wasn't a no-kill institution, Sims decided to establish his own. And while he started with a tool shed in 1996, he now operates a 1,000-square-foot no-kill, cat-only adoption center and sanctuary in Cullowhee, North Carolina, called the Catman2 Shelter, which houses an average of 70 cats at any given time.

In April, Sims combined two of his loves, cats and museums, to create the American Museum of the Housecat in

Sylva, North Carolina, which houses his extensive collection of feline art, toys and collectibles—things he started accumulating years ago from yard sales and eBay.

One piece Sims wanted to add to the museum was a cat mummy from Egypt. So when one came up for auction in New York, he was determined to secure it. Once Sims had the mummy in his possession, he took the 2,000-year-old feline to his veterinarian's office and was pleased that the radiographs indeed showed a cat skeleton resting in peace under all those layers of cloth.

"It's very rare to have a mummy in a museum of this size," he says. "I think it's my favorite thing here." And in a museum of over 5,000 items, including vintage advertisements, Victorian art and a giant collection of cat wind-up toys, that's saying something.

The museum is operated by volunteers, and all profits go to the Catman2 Shelter.

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Feline stomatitis: Get all the gunk

Leaving behind any rough edges or diseased tissue when removing teeth from cats with this painful condition is a big no-no, says Dr. Heidi Lobprise.

In her recent CVC—now Fetch dvm360—presentation “Feline dental support group: How many ways can cats get rid of teeth?” (Who can relate to that exasperation?), Heidi Lobprise, DVM, DAVDC, pored over the particulars of stomatitis, tooth resorption and more.

One point Dr. Lobprise wanted to drive home about stomatitis was the importance of complete resection of the diseased tissue and bone when extracting teeth. Clients might bristle at the thought of removing all of the caudal teeth, but Dr. Lobprise says this intervention can provide most suffering kitties significant relief and a pretty quick return to function—if done correctly.

How to do so correctly? Dr. Lobprise says to use these steps:

1 Work quadrant by quadrant to fully elevate the buccal gingiva and mucosa to see the teeth, furcations and alveolar bone. She recommends a No. 699 taper fissure crosscut bur to section the teeth and remove alveolar bone.

2 Use a thin, flat elevator or luxator followed by small and sharp winged elevators to loosen the segments of tooth.

3 Use small-breed extraction forceps to gently elevate and remove the entire tooth root.

4 Elevate the lingual and palatal mucosa away from the alveolar ridge.

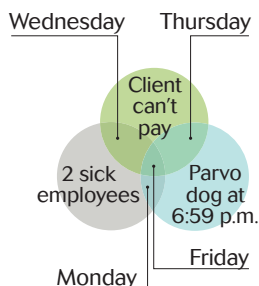
5 Key point: Perform a fairly aggressive alveoplasty, being sure to remove all rough

bone edges and débride down to healthy bone. Débride the alveoli too. A diamond bur can provide a smoother final finish.

6 Use 5-0 monofilament suture with a tapered needle in a simple interrupted or interrupted cruciate pattern to close the extraction sites. (Dr. Lobprise says that, yes, a continuous pattern would leave fewer knots but that any knot failure would be problematic.)

Result: a now pain-free cat ready to chow down on that tasty canned food (after sufficient postsurgical healing, of course).

VETERINARY DAYS OF THE WEEK



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Wish all of your patients were this relaxed? Here's help ...

By Michael Nappier, DVM, DABVP



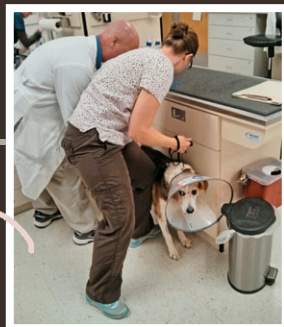
Get a heartworm test from a stressed dog

When all you want are a couple drops of blood, it sometimes feels like you need a magic touch to get them. Use a real magician's trick: misdirection. Keep the dog occupied up front with something delicious like a cheese cone while the magician sneaks around behind and gets the sample.

Administering sedation to a stressed dog

Sometimes stressed dogs benefit most from light sedation, but just how do you inject the dog without anyone getting hurt? For this technique we borrow

a little from hockey players—think hip check. Gently press your knee or thigh into the dog's shoulder while keeping control of the head with the leash/collar.



This allows sufficient restraint on many dogs for someone to sneak behind and give an intramuscular injection.



Giving *Bordetella bronchiseptica* vaccinations to dogs

How many *Bordetella* vaccines have you given that you felt like you got more of it than the dog did? "Out of sight, out of mind" is the best method for some dogs. Snugly wrapping a large fluffy towel around the dog's face and snout keeps them less aware and affords you some bite protection.

When a pet's in pain, where does its owner turn?

How often do young pet owners turn to nutrition to solve their pet's pain problems? Dive into the new data from The Pet Owner Paths research.

“ Older dog owners value pills over special diets when it comes to management of their pets' pain. Will a new view on the importance of nutrition in managing pets' medical conditions be a growing trend among America's veterinary clients? **”**

	Dog owners	Older owners	Millennial owners
Oral pill or tablet	62%	68%	52%
Nutritional supplement	43%	45%	40%
Special food	23%	13%	38%
Alternative therapy (massage, acupuncture, physical therapy)	20%	13%	30%
Injection/shot	19%	9%	33%
Liquid medicine	17%	6%	34%
Other	3%	3%	2%

The Pet Owner Paths research, sponsored by Merck, Unfenced (an animal health creative agency) and Kynetec (a market research firm), looks at the specific steps pet owners take when making decisions about their pets' health. The research was released exclusively to *dvm360*, *Vetted* and *Firstline*.


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BARTONELLOSIS = more than what the cat scratched in

Zoonotic cat scratch disease only scrapes the surface when it comes to this bacterial invader.

By Jason Stull, VMD, PhD, and Michelle Evason, DVM, DACVIM

Are you up to scratch on your *Bartonella* knowledge? Over the past three decades, the field of *Bartonella* research has grown substantially. Currently, there are more than 36 recognized *Bartonella* species that are transmitted by an array of vectors (e.g. fleas, keds, lice, sand flies, ticks). Many *Bartonella* species are zoonotic, causing disease in people and animals. Cats and dogs serve as the reservoir for many of the *Bartonella* species; however, other animals (e.g. rodents, rabbits, sheep, coyotes) are frequently involved. As diagnostic techniques improve and research expands, our understanding of these bacteria and their role in human, canine and feline disease is evolving rapidly.

Cat scratch disease ...

Bartonella is best known as the zoonotic agent of cat scratch disease (CSD). Caused by the bacteria *Bartonella henselae*, cats are infected by the cat flea

(*Ctenocephalides felis*). People acquire CSD through the scratch or bite of an infected cat. It is actually *B. henselae* in flea feces present on the cat's claws or teeth that transmits infection. Disease in people often manifests as a pustule at the site of the scratch or bite and may progress to regional lymphadenopathy and low-grade fever. Typically, CSD is self-limiting, but severe illness can occur

(particularly in immunocompromised individuals), resulting in bacillary angiomatosis, peliosis or endocarditis. It is estimated that more than 12,000 people are diagnosed with CSD annually in the United States. Young children are at increased risk of CSD—making up one-third of diagnosed cases—with the elderly at increased risk for severe disease.

... and beyond

Zoonotic cat scratch disease only scrapes the surface when it comes to this bacterial invader. Several *Bartonella* species have been implicated in disease in cats and dogs. In cats, *B. henselae* and *B.*



GET YOUR CAT ON

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clarridgeiae are the most common culprits of subclinical infection and clinical disease. In dogs, *B. vinsonii* subsp. *berkhoffii* and *B. henselae* are considered most common.

For dogs and cats, subclinical infection (a positive result on tests such as polymerase chain reaction [PCR], culture or serology) in an otherwise healthy animal is the most common presentation to veterinary teams. Animals infected with *Bartonella* species may develop a chronic bacteremia that can last for months to years. This bacteremia is most common in younger cats (less than 1 year of age). Seroprevalence (positive antibody test results) can be particularly high in shelter, stray and feral animals (or multicat

households) with an outdoor lifestyle or high cat-to-cat contact. This is likely due to higher risk of flea and tick exposure, along with scratch and bite behaviors in larger cat or dog groups. Blood transfusion may also be a risk for infection.

Clinical signs in dogs and cats

Bartonellosis is an important consideration in dogs (and less frequently cats) with infectious endocarditis or myocarditis that often results in congestive heart failure. This may present clinically as heart murmur, cough, trouble breathing and myriad systemic signs (e.g. fever, lethargy, lameness, neurologic abnormalities). Most cats infected with *Bartonella*

species have no signs of disease (subclinical) or have vague intermittent signs that may emerge with stress, immunocompromise, coinfection with another pathogen or concurrent illness. Less frequently, infection with *Bartonella* species in dogs and cats has been associated with a wide range of clinical signs and inflammatory diseases (e.g. granulomatous disease, pancreatitis, peliosis hepatis). More work is needed to determine the role and management of *Bartonella* infection in these conditions.

A definitive diagnosis

Diagnosis of bartonellosis in cats and dogs can be challenging. This is mainly due to the difficulty with test result interpretation (e.g. subclinical

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infection) and the vague or intermittent nature of clinical signs. A combination of consistent clinical signs, exposure history (e.g. shelter, stray, flea and tick exposure) and a positive culture (blood or tissue) or PCR result is needed to confirm diagnosis. Screening healthy animals (sometimes requested because of zoonotic concerns, especially with immunocompromised owners) is generally not advised.

Treatment tips

Doxycycline or a combination of antimicrobials is usually recommended for treatment of clinical bartonellosis. However, pet owners should be made aware that therapy is infrequently curative and is used to reduce bacterial load, improve disease signs and improve patient quality of life. Note: Treatment is recommended only for animals with overt clinical signs.

Zero in on vector control

In the clinic, shelter and at home, prevention should focus on reducing or eliminating fleas, flea dirt and ticks and, as possible, preventing animal scratches and bites. To reduce risk, make sure

owners know the human disease risk (notably CSD) and educate them on the need for precautions such as avoiding bites and scratches and lowering the burden of fleas and flea dirt. In particular, educate and discourage immunocompromised individuals from playing with or owning young cats.

Suggested reading

1. Breitschwerdt EB. Feline bartonellosis and cat scratch disease. *Vet Immunol Immunopathol* 2008;123:167-171.
2. Breitschwerdt EB. Bartonellosis, One Health and all creatures great and small. *Vet Dermatol* 2017;28:96-e21.
3. Centers for Disease Control and Prevention. *Bartonella* infection.
4. Stützer B, Hartmann K. Chronic bartonellosis in cats. *J Feline Med Surg* 2012;14:612-621.
5. Sykes JE, Kittleson MD, Chomel BB, et al. Clinicopathologic findings and outcome in dogs with infective endocarditis: 71 cases (1992-2005). *J Am Vet Med Assoc* 2006;228:1735-1747.

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Help clients understand why to care about cat scratch disease.

Since cat scratch disease (CSD) occurs wherever you find both cats and fleas, your clients—especially cat-owning clients with delicate immune systems—should know dangers of cat scratch disease. Using information from the Centers for Disease Control, [dvm360](http://dvm360.com) created this helpful handout, with answers to common questions, tips for staying safe and information on treatment. Grab your copy at dvm360.com/catscratch.



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†Specificity represents the ability to correctly identify negative samples.

References:

1. Data on file, Study Report No. D886R-US-17-038, Zoetis Inc.
2. Data on file, Study Report No. D886R-US-16-033, Zoetis Inc.
3. Data on file, Study Report No. D886R-US-16-032, Zoetis Inc.

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Joint supplements for dogs: The helpful vs. the

HYPE

There's a lot of crazy info out there when it comes to canine joint health and mobility. (Elk antler, anyone?) Arm yourself with the evidence and position your veterinary practice as the trusted source of reliable data. *By Sarah J. Wooten, DVM*

Chances are pet owners already come to you with questions about things like hyper-immune milk factor and *Boswellia serrata*, but how do you begin to shed light on the veiled world of nutraceuticals? How much to give? How often? What brand? Glucosamine-enriched dog food or shark cartilage supplement? What is truth? What is a "claim"? So many questions.

Fortunately, when it comes to evidence-based use of joint supplements in dogs, Fetch dvm360 conference speaker Matt Brunke, DVM, CCRP, CVPP, CVA, has the answers. Here's a rundown of the joint supplements getting the most buzz in the pet world these days.

Glucosamine hydrochloride.

Glucosamine hydrochloride is an amino sugar, but it's not involved in the

glucose pathway. It's a building block of the cartilage matrix and stimulates growth of cartilage cells. Glucosamine is readily available, cheap and can be given safely to diabetic patients, Dr. Brunke says.

Notice that we're discussing glucosamine hydrochloride, here, not glucosamine sulfate. Although glucosamine sulfate is absorbed better, there have been no studies published showing that glucosamine sulfate actually shows up in synovial tissue after it's been ingested orally. A joint supplement doesn't help if it doesn't get where it needs to be.

A loading dose of two times maintenance for four to six weeks is required for glucosamine hydrochloride to reach therapeutic levels, Dr. Brunke says. Maintenance is 500 to 1,000 mg for a 75-lb dog,

which works out to about 15 mg/kg.

Does it work? A randomized, double-blind, positive-controlled, multicenter trial assessed 35 dogs with confirmed osteoarthritis of the hip or elbow for their response to orally administered glucosamine hydrochloride and chondroitin sulfate. Carprofen was used as the control. Although onset of efficacy was slower than carprofen, dogs treated with glucosamine-chondroitin showed statistically significant improvements in pain scores, severity and weightbearing by day 70.¹

Chondroitin sulfate. This supplement works by inhibiting cartilage-destroying enzymes, but it's difficult to source and extract, which raises the cost. Chondroitin is a large molecule with variable absorption, Dr. Brunke says, though some companies



How to evaluate products

When it comes to nutraceuticals, Dr. Matt Brunke is concerned with two things: safety and efficacy.

In veterinary medicine, a nutraceutical is defined as a nondrug substance produced in a purified or extracted form that is intended to improve health and well-being. Nutraceuticals are not drugs; they are considered food and regulated as such. This can lay the groundwork for contamination and variability because there is no direct regulatory oversight and no requirement for studies to prove efficacy and safety. Be cautious, Dr. Brunke says, when evaluating product labels and claims. Last year alone there were more than 22,000 human trips to the ER directly related to consumption of joint supplements alone.

Labels can be confusing, Dr. Brunke says. Just because a nutraceutical label claims something doesn't make it gospel. Look for evidence that a product works, like double-blind placebo studies, studies done by an independent third party, prospective studies or studies published in peer-reviewed journals. Dr. Brunke recommends calling the company and asking for research—if they can't give you any, that's a major red flag.



Folks we just have to hype:

Dr. Matt Brunke, a speaker at Fetch dvm360 conferences, lives in Washington, D.C. Dr. Sarah Wooten is an associate at Sheep Draw Veterinary Hospital in Greeley, Colorado, a Fetch dvm360 conference speaker and a frequent contributor to dvm360.com.

produce a low-molecular-weight version that can increase absorption from the gastrointestinal tract.

Chondroitin requires a loading dose similar to glucosamine, and the standalone dosage is the same as glucosamine. When given with glucosamine, chondroitin has a synergistic effect and has been shown to lessen inflammation if given before a joint injury in dogs, Dr. Brunke says.

Avocado soybean unsaponifiables (ASUs). ASUs protect cartilage matrix against damage by inhibiting key mediators of the structural changes that take place in osteoarthritis,² and they stimulate healing of osteochondral defects in the canine knee, possibly by increasing transforming growth factor (TGF)-beta in the tissues.³ The dosage used in the

the dose needed for kidneys is one-fifth the dose needed for joints, Dr. Brunke says. When it comes to omega-3s, docosahexaenoic acid (DHA) and eicosapentaenoic acid (EPA) from wild-caught coldwater fish is best. Farm-raised fish have low levels of omega-3s and high levels of omega 6s, Dr. Brunke says.

One study found that some dogs receiving carprofen for osteoarthritis pain that were also fed a diet supplemented with fish oil omega-3 fatty acids needed less carprofen.⁴ Dr. Brunke recommends a dosage of 100 mg/kg combined EPA and DHA for osteoarthritis. FYI—in case your clients ask, flaxseed does not provide sufficient amounts of DHA and EPA in dogs.

MSM/DMSO. There has been no published research on the use of these supplements in dogs, Dr. Brunke says.

Eggshell membrane. Eggshell membrane contains high concentrations of glucosamine, chondroitin, collagen and hyaluronic acid, Dr. Brunke says—but absorption of these

nutrients is unknown. There are some good human studies that demonstrate the efficacy of eggshell membrane in treating osteoarthritis, he adds, and while there are no published studies in dogs, Virbac recently launched a veterinary product called Movoflex.

Green-lipped mussels. The mechanism of green-lipped mussels has not been determined, Dr. Brunke says, but a 2013 study found increased concentrations of plasma omega-3 fatty acids and improvement of peak vertical force in dogs fed a diet enriched with green-lipped mussel.⁵ Still, studies do not demonstrate consistent improvement, and there are

TIP!

Joint supplements are a waste of the client's money if the dog has end-stage bone-on-bone osteoarthritis in every joint. Don't bother. But if just one joint is affected, supplements may be given to protect the other joints.

some concerns about the efficacy of farmed mussels and the sustainability of harvesting wild-caught mussels, he says. Standard dosage is 77 mg/kg.

Boswellia serrata. This tree extract is said to have an NSAID-like effect. A 2004 study showed statistically significant reduction of severity and resolution of the signs of osteoarthritis in dogs, such as intermittent lameness, local pain and stiff gait, after six weeks of treatment with *Boswellia serrata*.⁶ Note that the study was unblinded, based on subjective data and not placebo-controlled, Dr. Brunke says. Standard dosage is 50 mg/kg.

For more information, tips and references, head over to dvm360.com/supplementhyype.

TIP!

The omega-3s in most maintenance diets are not high enough to treat disease states. If an arthritic dog is eating a maintenance diet formulated with omega-3s, the owner will need to administer an omega-3 supplement on top of that to attain therapeutic levels.

studies referenced was one 300-mg capsule ASUs every three days, but Dr. Brunke recommends daily administration based on body weight. He adds that the efficacy of ASUs is similar to NSAIDs in dogs, but they have a delay in onset similar to glucosamine and chondroitin. When combined with glucosamine and chondroitin, ASUs modify and amplify the actions of each and reduce the amount of chondroitin required.

Omega-3 fatty acids. Omega-3s are known to support heart health and joints, improve kidneys and boost the immune system, but the dosage for each condition varies. For example,



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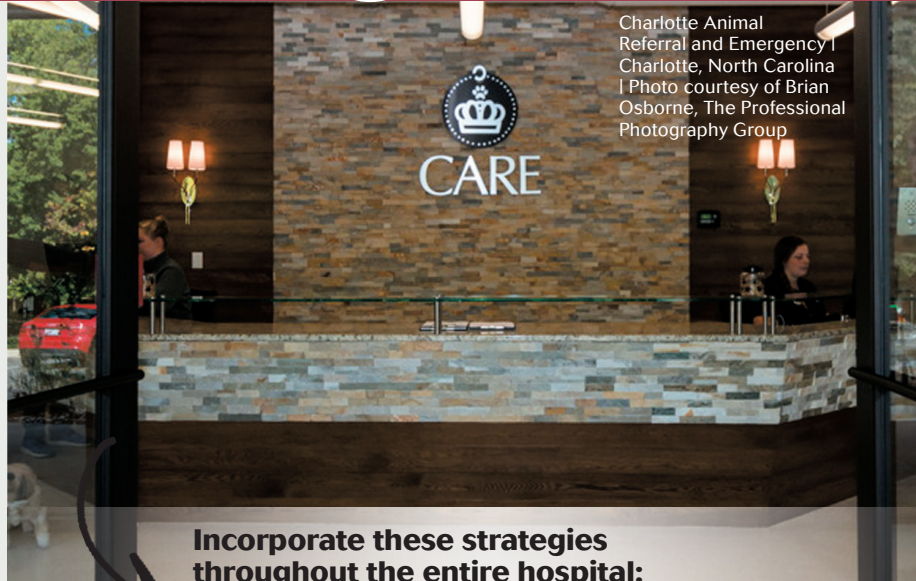
Hospital design

Turn your hospital into a 'spaw'

By Debbie Martin, CPDT-KA, KPA CTP,
LVT, VTS (behavior)

If you want to cultivate a "spaw"-like experience for your patients and clients, you don't need to scrap your current hospital. Instead of starting over, start making small Fear Free changes that make a big difference.

Each area of your hospital presents opportunities to proactively prevent fear and promote calm, and each team member has a role to play.



Charlotte Animal Referral and Emergency | Charlotte, North Carolina | Photo courtesy of Brian Osborne, The Professional Photography Group

Incorporate these strategies throughout the entire hospital:

- > Provide nonslip surfaces.
- > Use aroma and acoustic therapy.
- > Provide all team members with treat bags for easy access to patient reinforcers.
- > Use a considerate approach for patient interactions. To avoid overwhelming patients, turn your body sideways when you face them, avoid direct eye contact and allow pets to decide if they want to interact.
- > Talk softly and move slowly.

Exam room examples

- > Allow the pet to explore the room while obtaining the medical and behavior history from the client.
- > Evaluate and record the pet's emotional state and communicate observations to the rest of the team.
- > Allow the pet to stay in the exam room for necessary procedures, if possible. This allows the pet to stay with its owner in an area that feels safe. If owners are uncomfortable being in the room during procedures, you may ask them to step out into the reception area for a moment.
- > Use gentle control and a considerate approach when performing procedures.



Hardin Valley Animal Hospital | Knoxville, Tennessee | Photo courtesy of David Bridges

Stepping up the scale

The scale bears special mention, as the weighing process is a stress point for many pets. Take these steps for a smoother weigh-in:

- > The scale should be stable and feature a nonslip surface.
- > Place the scale in an open area. The pet shouldn't need to walk into a corner to get on the scale.
- > Don't pull or force the dog onto the scale. Use a treat trail or motion to encourage the pet to choose to sit on it.

McGregor Boulevard Veterinary Clinic | Fort Myers, Florida | Photo courtesy of Stuart Gobey, Island Studio Photography



HELPFUL STUFF



How to avoid purchasing pitfalls

When you're about to plunk down a large amount of money for a capital investment such as an ultrasound machine, it literally pays to do your research. Karen Felsted, CPA, MS, DVM, CVPM, CVA, has a three-step process:

Step 1. Before you even open a catalog or talk to a sales rep, nail down your expectations by asking yourself:

- > Why are you investing in an ultrasound?
- > What do you expect out of it financially?
- > Who is going to be using it and why?
- > How will it positively impact your practice?
- > When do you want to have it paid off and turning a profit?
- > How often do you expect to use it?
- > How much do you want to spend and why? Include in your spending the cost of training and personnel.

The most common reasons veterinarians want to invest in an ultrasound is to improve the quality of care, increase efficiency and increase profitability, Dr. Felsted says.

Step 2. Once you've nailed down your expectations, then and only then start to look at models and brands. When you look, filter everything through your expectations that you already nailed down in step one. Get a solid idea of the machine's capability, future repair costs and other peripheral costs. Dr. Felsted recommends talking to other veterinarians already using the model and asking them for feedback on what they like and don't like.

Step 3. Run a cost-profit analysis on the ultrasound machine to give you an idea of how long it will be before you turn a profit on the machine. Analysis of the first-time purchase of an ultrasound is different than upgrading equipment that you already own, says Dr. Felsted. For example, analysis of upgrading to digital radiography only requires pulling your radiograph sales for a typical month and doing some simple math.

For more info on purchasing ultrasound equipment, check out dvm360.com/taleoftwo.

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HELPFUL STUFF



Living in an Amazon Prime world

Denise Tumblin, CPA, has a story: She owns several pets and all of them are on therapeutic diets for one reason or another. For her, going to the clinic to get food is a hassle because if she doesn't call ahead, the clinic doesn't typically have it in stock. So the clinic has to order the diet, she has to go back, and in the meantime she's run out of food. By moving her orders to the clinic's online pharmacy, she reduces her own frustration, follows her veterinarian's dietary

recommendations more closely, and saves time.

One way to encourage client adherence to your recommendations is to make things easier and more convenient, especially when it comes to therapeutic diets and preventive care products. An online pharmacy is one of the best ways to do this, Tumblin says. Want proof? A 2012 study in human medicine found that patients who used online pharmacies had higher rates of medication

adherence compared with patients who did not, meaning that online pharmacy users followed prescription instructions better.*

Clients don't want the hassle of driving down to the clinic to pick up meds. If we're being honest, we all want convenience. Hey-o, all you Amazon Prime addicts! Out of toilet paper? Press the button and voila!

This is the world our clients live in, and we have to get on board or run the risk of the train leaving the station without us. It helps to know that adding online pharmacy convenience adds value to the services we provide our clients, enhances our ability to care for patients, and even grows our practice's financial health.

Now if you'll excuse us, we have to go order more toilet paper.

*For reference information and more on online veterinary pharmacies, go to dvm360.com/pharmafriend.

Brief Summary: Before using please consult the product insert, 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

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

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, hypalbuminemia. 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.

DOSEAGE 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.

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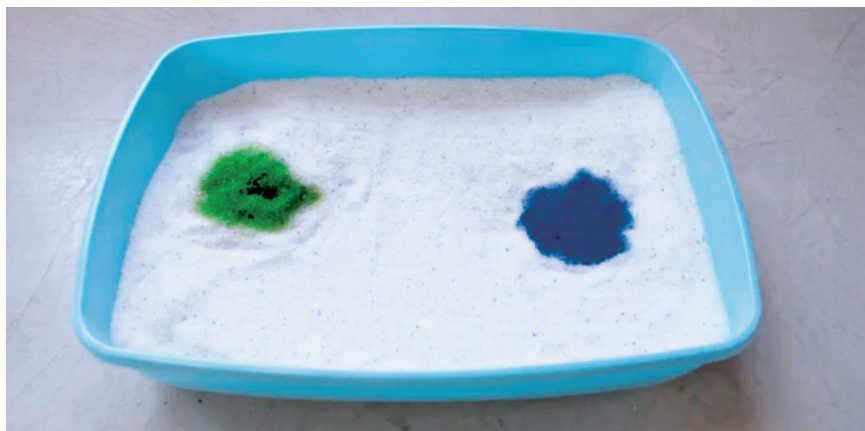
IMPORTANT SAFETY INFORMATION: As a class, NSAIDs may be associated with gastrointestinal, kidney and liver side effects. These are usually mild, but may be serious. Dog owners should discontinue therapy and contact their veterinarian immediately if side effects occur. Evaluation for pre-existing conditions 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. Norbrook logos and Carprieve are registered trademarks of Norbrook Laboratories Limited. Rimadyl is a registered trademark of Zoetis, Inc. 0917-595-1014

www.norbrook.com

Please see Brief Summary on page 20.

A COLOR BOX

PrettyLitter: a new ally in disease detection?



The color key:

Golden yellow or olive green litter: a healthy cat (at least in regard to what can be detected via the urine)

Red litter: blood in the urine

Blue litter: high alkaline content, which may indicate a urinary tract infection

Bright green litter: abnormal acidity, which may indicate a metabolic disorder

Litter-ally pretty

Someday, the owner of a feline patient may come to your clinic and tell you that her cat's PrettyLitter is blue so she fears her furry friend has a urinary tract infection. Huh? Cat got your tongue? Instead of excusing yourself to hurriedly scan Google for answers, here's a

quick overview of what PrettyLitter is and how it works:

PrettyLitter is a special cat litter that changes colors to alert owners of potential illnesses that can be detected via the urine in an otherwise asymptomatic cat.

According to

PrettyLitter's website, the granules are made of porous silica gel containing the company's patented health indicators. These indicators cause the litter to change color when blood, acidity and alkalinity abnormalities are detected.

All the colors!

PrettyLitter's website notes that temporary color changes can occur due to changes in diet or environment, so the company advises cat owners to visit their pet's veterinarian once the color change has persisted for one or two days. PrettyLitter also stresses that the color change should be used as a guide when talking with the veterinarian and that only a veterinarian can diagnose a disease in their cat. (The company has a veterinarian-in-chief—Geoff Dewire, DVM—on staff, so it's no surprise that veterinarians are a part of the product's instructions for use.)

PrettyLitter states that its product is perfectly safe for our purring friends—even when ingested—as the website says it “is not absorbed by the bowel, does not swell in the presence of humidity and poses no risk in blocking the digestive tract.” If ingested, it becomes a fine powder that is naturally eliminated. PrettyLitter is also chemical-free and biodegradable.

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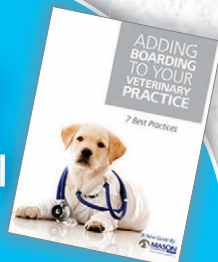
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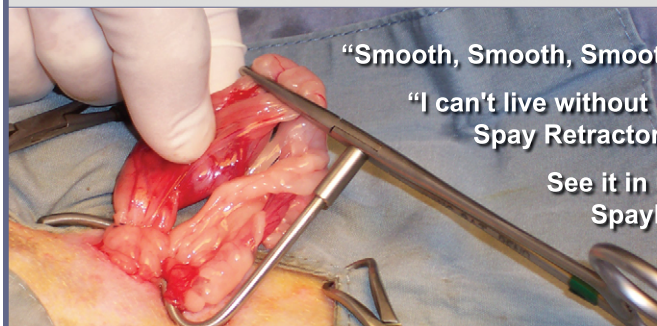
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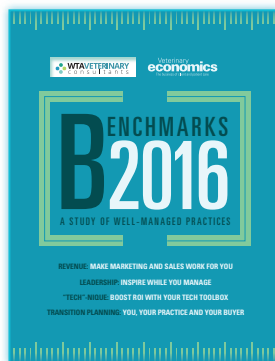
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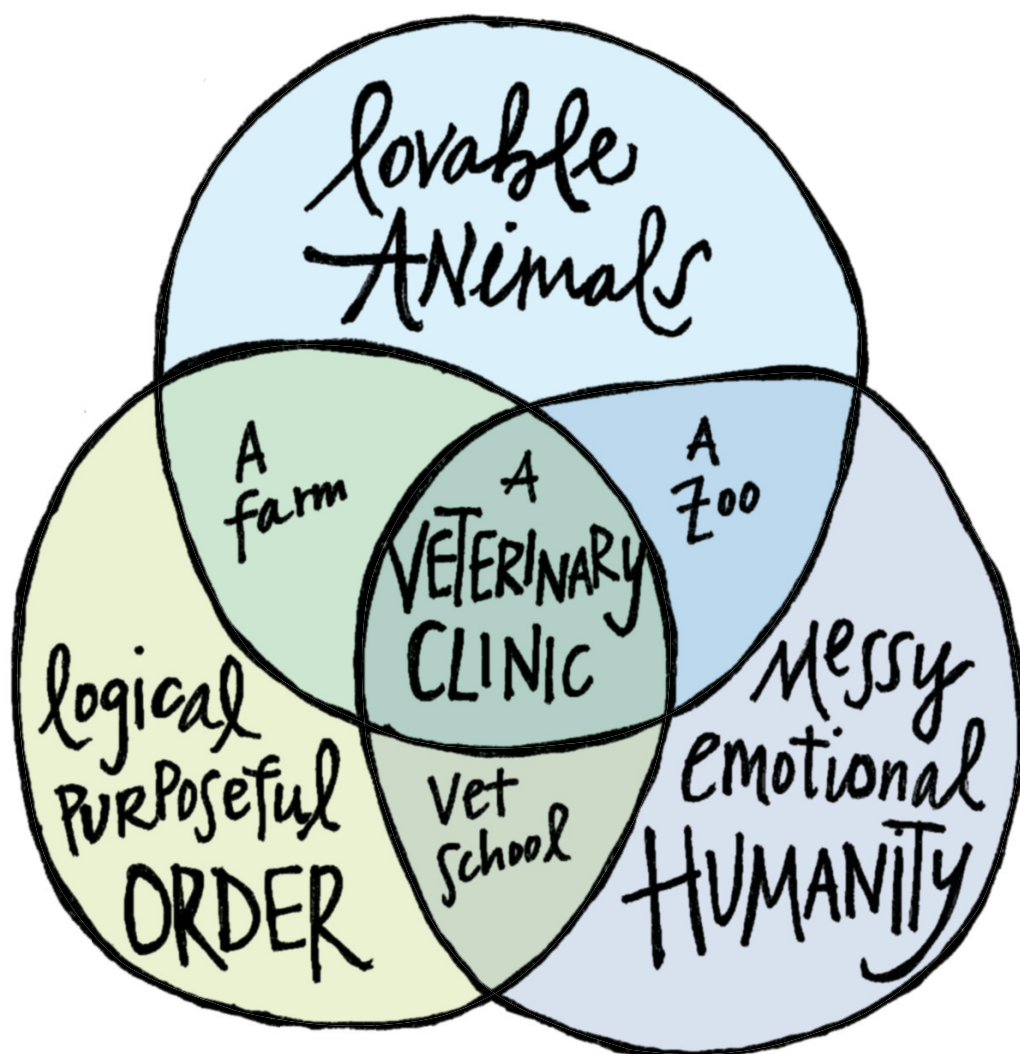
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