

The Most Important Thing

Don't mistake – vaccinations and screening tests are an important part of keeping your pet healthy. But when your pet comes in for a wellness checkup, a good **physical exam and consultation** are by far the most important services we offer. Here are just a few reasons why regular exams are vital:

- **Pets can't tell us something is wrong.** Signs of many health problems are mild to absent. With a good physical and history we regularly identify issues without obvious signs, ranging from dental problems, to arthritis, to early kidney disease and more.
- **Pets hide disease.** In the wild, getting sick often means becoming lunch. Less domesticated pets like exotics and cats are adept at hiding signs of disease.
- **Owners miss signs of disease.** I'm always amazed at how observant many clients are when it comes to picking up subtle changes in their pet. That said, many signs of disease are far from obvious, making our years of veterinary training and experience invaluable.

But regular wellness care is not just about finding problems – most importantly, it's about keeping pets healthy. That's why the time spent consulting with your vet and their staff during a checkup is so important:

- **Get answers to *your* questions tailored to *your* pet.** Yes, we live in the age of Google. But the internet doesn't know you or your pet, and it can't clarify your question or ask *you* the right questions to get you the right answers. We can.
- **Learn about new pet knowledge.** Thousands of people are out there researching every aspect of pet health. We keep up so we can keep you up, and make sure your family benefits from the best knowledge available.
- **Build a relationship.** It's the least obvious, least tangible, and arguably the most important part of regular veterinary care. We truly hope it doesn't happen, but there's a good chance one day you will bring your pet in for a serious problem. Regular veterinary visits build a relationship of trust with your vet and their staff for you *and* your pet, meaning less stress for both of you if and when that time comes.

The Value of Twice-Yearly Checkups

Once you start to understand the benefits of regular checkups, a year seems like a long time to go between them. That's like seven dog-years, right? That's why Access Veterinary Care recommends Biannual Wellness Checkups for all our patients.

- **A lot can happen in six months!** Clients often don't notice subtle signs of problems, or may pass off changes in their pet's behavior as due to weather, age, or temperament. If your pet only sees the vet once a year, they may spend months silently coping with treatable problems like arthritis, dental disease and more.
- Biannual visits let us **spread out preventative care and testing for pets**, making for better medicine (and often, easier budgeting). For example, we may split up vaccines to reduce the likelihood of an adverse reaction, or take care of their dental cleaning at the second visit to spread out costs.
- More frequent visits mean **better care at EVERY visit!** The better we know your pet's lifestyle and needs, the better we are able to tailor care and education.
- Biannual visits **build a better relationship** for you and your pets with our doctors and staff. Though we hope it never happens, one day your pet may need to see us for a serious illness. It can't be overstated how valuable it is that your pet is comfortable and trusting with our hospital and staff if that happens – not to mention that you are too!

Heartworm 101

There are only a few, simple things you need to know about Heartworm disease. **Heartworms kill dogs and cats.** Treatment is risky and expensive. Heartworm disease is (fortunately) easily preventable. Therefore, all dogs and cats should be on year-round monthly preventatives.

It really is that simple. However, if you want more than just my word on that - if you want to know *what* heartworms are, *how* infection and disease occurs, and *why* giving those preventatives monthly is so important - keep reading.

What Are Heartworms?

Heartworm is the common name for *Dirofilaria immitis*, a large roundworm parasite very similar to those disgusting white intestinal worms that dogs and cats become infected with from time to time. Heartworm has been diagnosed in all 48 continental states and many other countries as well. More importantly, heartworms are **endemic and common in Southern Indiana**. Their life cycle is rather complicated, but a basic understanding goes a long way toward both understanding the disease and making sense of veterinary recommendations about preventatives.

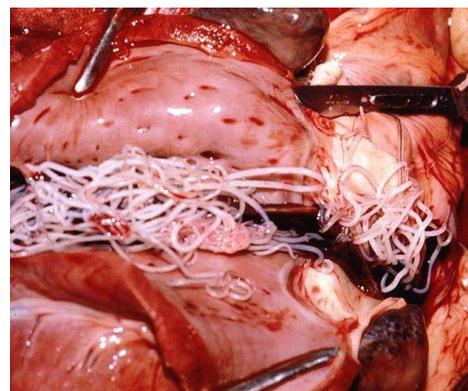
Dogs are the natural host for adult worms, which infect the large arteries of the lung, and in heavy infections are found in the heart itself. Males and females mate to produce larvae called *microfilaria* (i.e., small threadworms). These microscopic worms live in the bloodstream for up to two years, waiting to be sucked up by another disgusting little critter - mosquitos. This triggers the larvae to mature through a couple more stages, eventually winding up back in the salivary gland of the mosquito - just in time to get injected back into another unsuspecting dog. Over the next six months, those microscopic larvae will travel to the vessels of the lungs and mature into adult worms that may be nearly a foot long, ready to mate and start the cycle all over again.

How Do Heartworms Harm Pets?

It doesn't take a medical degree to realize that bunch of worms clogging up the bloodstream is unhealthy. Indeed, when many worms are present they interfere with bloodflow into the lungs and force the heart to work harder, leading to classic signs such as exercise intolerance and coughing. The severity of such problems is largely a function of how many worms are present - pets with three or four worms may show no overt signs, while those with dozens will likely be in rough shape.

Simple mechanical blockage of the heart and vessels is far from the only problem, however. For starters, the immune system is really, really not a fan of freeloading parasites. Significant inflammation can result in the lungs from both adult and juvenile worms; indeed, research is pointing toward juvenile worms as being a major cause of feline asthma syndromes. In response to the worms, the immune system produces massive amounts of antibodies - proteins directed at identifying and helping destroy invading microorganisms. Unfortunately, for all its bluster the immune system is pretty impotent to deal with the worms, and winds up doing much more harm than good. The arteries the worms live in thicken from inflammation, and all those antibodies wind up settling out in small vessels - particularly in the kidneys, where they may cause a fair bit of damage.

One of the most dangerous complications of heartworm disease happens when the worms die. Dead adults get pushed downstream until they lodge in smaller vessels of the lungs, forming an embolus that cuts off blood to that part of the lungs until the body can break it down. Enough of those dead worms in the wrong place can be



fatal. Furthermore, once adults set up shop in the cardiovascular system they begin pumping those tiny microfilaria into the bloodstream - potentially millions of them. Strangely, these don't seem to cause much trouble while alive; however, they turn the pet into a walking infection source for every mosquito in the area, which in turn may infect other pets. When the larvae die, though, the dead parasites trigger the immune system and cause microscopic abscesses where they land. This probably isn't a big deal when most of them are alive, but it is a *major* concern when treating pets with the disease, as millions dying at once can potentially send an animal into anaphylactic shock. Both of these are primary reason why infected animals need to be under *strict* exercise restriction, and why treatment must be undertaken with close monitoring at the hospital.

So, that's what heartworms are and what they do. On our website you'll find articles discussing preventatives - what options are out there, why giving them *every month* is important, and about the benefits they provide aside from heartworm protection. There is also info about screening tests, particularly why we recommend yearly testing for all pets - even those on preventatives.

Prevention Strategies

The major problem with heartworms are adults (cats are a bit different, but we'll address that in the last article), and it takes about six months for them to mature after infection. The microscopic larvae that cause initial infection are susceptible to low doses of certain anti-parasite drugs, so the idea is that by giving pets a dose at regular intervals we can stop the *disease* (adult worms) from developing, even if we haven't stopped *infection* per say. That's good, because as anyone who's been to Louisiana in July will tell you, it's bloody near impossible to keep from getting a bitten by mosquitoes no matter what you do. And it only takes one.

So, why monthly instead of every six months? That's how long it takes to get adults, right? Well, the trouble is that as they age, larvae develop resistance to those relatively safe anti-parasite drugs. Effectiveness gets unpredictable 4-5 weeks after infection, and eventually they become pretty impervious to those drugs. We have to resort to drastic measures to kill adults - in fact, the standard treatment for adult infection is in the arsenic family. So monthly dosing is the safest bet (and a lot easier to remember). On the flip side, it's worth noting that if you miss a dose by a week or two you'll probably be okay. No guarantees, but it makes for easier sleeping when life (or memory) inevitably mucks with your schedule.

And why *every month*? Mosquitoes don't wear snowshoes, right? I could tell you that "heat islands," warm areas near houses and the like, may create microenvironments where mosquitoes can hatch even in the winter. I could tell you it only takes one infected mosquito to threaten the life of your pet. I could tell you many preventatives have important benefits other than just heartworm protection, like treating intestinal parasites. All are true, but I'll level with you. Even if I could guarantee your pet wouldn't see a mosquito until April 1st or after October 31st (I can't), I know most of us - myself included - would forget to start until sometime in May or miss that last dose in the fall. And say you snowbird it somewhere warm for Christmas - what then? It's just easier to be consistent if you're on a consistent schedule. And where heartworm is concerned, consistency can save pets' lives.

Fleas

How Fleas Harm Pets

First off, fleas are nasty little parasites that literally suck the blood out of your pet. In fact, heavy infestations can result in serious, life-threatening anemia from all that blood loss, particularly in young animals. Many pets are not just irritated by flea bites, but highly allergic to them. Such animals can experience extreme hair loss, itching, and nasty skin lesions from even a single flea bite. My own dog falls into that category, and it's one of the many reasons we keep him on flea prevention year-round. No reason to risk a stray flea turning him into a miserable mess!

Fleas can also carry diseases. One of the most common is the tapeworm *Diplydium caninum*. Nothing gets an owner in the clinic faster than a dog or cat with a wriggling worm on its bottom. Plus, people can get this tapeworm, too. Fleas may also infect cats with serious bacterial diseases.

Life & Times

To really handle a flea infestation you need to understand a few things about their life cycle. Once a female flea finds your pet they will start laying eggs within 48 hours – up to 40 of them per day, per flea. Those eggs fall off the animal into the environment to hatch, meaning that by the time you recognize your pet has fleas your house and yard are likely packed with eggs. It takes around a month for those eggs to develop into adults capable of hitching a ride (and a blood meal) on your pet.

All this leads to several important points:

- First, cleaning the environment to get rid of as many eggs as possible is vital. Launder bedding and vacuum thoroughly. Flea larvae like dark, warm, humid spots, so focus on those.
- Pets with fleas should be treated for **at least** three months. You're extremely unlikely to get all the eggs and larvae in the environment, and a couple of fleas can start the process all over they mature.
- Flea infestations happen FAST. Adults hunt for a host aggressively, breed quickly and prolifically, meaning one dog with fleas getting walked around the neighborhood can easily result in your pet finding some new friends.

Getting Rid of Fleas

Fortunately, there are several safe products available to treat and prevent flea infestations. As noted above, any pet that catches fleas should be treated for at least three months, as by the time you notice the fleas eggs are almost certainly scattered throughout your home. ALL pets will need to be treated, too – while the dog may have brought the fleas in, the cat will provide them food and shelter if he's not treated too. Last but not least – prevention is worth more than cure. Southern Indiana is a flea paradise, and it's less a question of if your pet will be exposed, but when and how often. We see them regularly even in the dead of winter. So, the best move is to just keep them on a good preventative year round. We carry a variety of products to fit your pet's lifestyle and your budget – don't hesitate to call or stop by for help!

Why Worry About Ticks?

While fleas are an uncomfortable nuisance, ticks are much more likely to cause your pet serious problems. Below are four reasons we believe all pets in Southern Indiana should be on year-round tick prevention

Ticks carry serious, potentially life-threatening diseases.

Most people have heard of Lyme Disease and Rocky Mountain Spotted Fever, both of which affect humans *and* pets. But have you heard of Anaplasmosis, Ehrlichiosis, Babesiosis and Cytauxzoonosis? All of these are transmitted by ticks can make your pet seriously ill, and can lead to life-threatening complications.

Ticks are present year round – and they are looking for you and your pet

It's a myth that ticks die off in the winter. While some ticks do become less active, all are still out there. Some, like the Deer Tick actually become more likely to bite when it is cooler.

Ticks are finding your pet, even if you aren't finding ticks

Ticks are tiny – some nymphs are barely visible and can still carry disease. Plus they hide in furry cracks and crevices on your pets. Because there is a tick for every environment, even urban yards, most dogs are getting exposed whether you realize it or not..

Ticks carry human diseases – protecting your pets helps protect the whole family

While tick-borne disease isn't transmissible from pets to humans, if your dog is getting exposed you are too. Good tick preventatives turn your pet into a tick-destroying machine and help eliminate infestations in your yard that you or your children may come into contact with. Everyone wins.

Unfortunately most over-the-counter flea preventions protect poorly to not at all against ticks , or contain more potent pesticides that may be of concern to other animals in your household. Fortunately there are new options which are effective at killing fleas while safe for your pets and family members. Your Veterinarian and their staff are your best resource for coming up with a year-round prevention strategy for your pets.

Pet Microchips

A microchip is a permanent form of ID. About the size of a grain of rice, it is implanted under the skin and can't be lost or removed like a collar or tag. If your pet is ever lost or stolen, any veterinarian or shelter it might wind up at will scan it for a microchip. When found, they can use it to reunite you with your lost companion. We strongly recommend microchips for every pet.

We exclusively use Microfindr chips because:

- Unlike almost all other chips, there are **NO hidden or recurring fees**. Implantation includes lifetime registration, and there's never a charge to change your information if you move.
- Our chips are **much smaller** than other brands, making implantation **more comfortable** for your pet. The Microfindr needle will literally fit inside a Home Again needle!
- **When you register the chip you can also add medical alerts and medications to the database.** This means if your diabetic dog or hyperthyroid cat is lost, when their chip is scanned and looked up in the database those alerts will come up, letting the vet or shelter know they need medication that could save their life!

Protecting Your Pet's Dental Health

What would you do if you had a toothache, but couldn't tell anyone?

Your pet's mouth is the most common place for potentially painful and serious problems to hide. That terrible smell and brown or green buildup on Muffy's teeth? That's hardened bacteria, a cake of infection called tartar. If you see that, look closely and you'll also see red, inflamed gums. Ignore it long enough, and those teeth become loose, painful, and potentially abscessed.

These guidelines will help you ensure a healthy, happy mouth:

- Daily toothbrushing is the gold-standard for keeping anyone's mouth healthy between professional dental cleanings. Our staff is happy to instruct you in training your pet to tolerate (and even enjoy!) toothbrushing.
- Even if you don't brush your pet's teeth regularly, get in the habit of looking in their mouths. The first step in dealing with oral health problems is recognizing them!
- Special diets and dental chews have been developed to reduce plaque and tartar buildup – ask anyone on our staff for recommendations.
- The Veterinary Oral Health Council evaluates products for safety and effectiveness. They maintain a list of approved products at VOHC.org.
- We recommend annual dental cleanings and exams for all dogs and cats, just like your dentist recommends. They're teeth are no different than yours, and regular care is no less important!

Excellence in Dental Care

From periodontal disease to fractured teeth and oral tumors, you can't find them if you don't look. Many serious problems will be missed in awake animals, and many more are only visible with x-rays. That's why Access Veterinary Care recommends an annual dental cleaning, exam, and periodic full-mouth x-rays - the exact same thing your dentist recommends for you. Because your pet's teeth need and deserve the same care your teeth do.

Access Veterinary Care offers the best dental care in the area. Our dental equipment is the best available, and we are committed to your pet's oral health.



Tips for Low-Stress Vet Visits

Imagine your mother dropped by this morning with a very large box; without words or explanation she unceremoniously forced you into it, then tossed you in the car and took off. Eventually the car stops and she lugs you into the doctor's office (she's stronger than she looks, that mother of yours). She doesn't seem to understand your repeated questions, so you still have no idea what's going on or why you're here. However, several others seem to be in similar situations. Some are in boxes like you, others are tied to ropes - there's one person who won't stop shouting nonsense, another urinating on a chair leg, and one guy who won't stop trying to lick everyone in the face. Eventually you're taken into another room, dumped out of the box and onto your keister, then poked and prodded for no apparent reason by some strange woman in a white coat. They finish off with a couple of unexpected shots in the rump, then good ol' mom shoves you back in the box and drives you home.

Yeah, I guess that might be a *little stressful*.

For some pets there may be no such thing as a "stress-free" vet visit, but we *can* reduce that stress to manageable levels. It's also important to note that animals deal with stress differently, just like people - some may growl or cower, but acting overly submissive or affectionate can be less-obvious signs too.

Setting Expectations

Animals are bright, fast learners. If that cat carrier, leash, or car ride always culminates in getting poked in the butt by a stranger, it won't take them long to start associating those things with trouble. I had one diabetic patient whose owner told me Tiny's fine in the car if they turn left out of the driveway - but turning right always means the vet - and one instantly ticked-off Tiny. Fortunately, pets make positive associations just as easily, so you can undo most of this stress with a little effort.

- Get in the habit of setting the cat carrier out once or twice a week with a treat or toy in it. They'll be eager to get in the next time you need to use it for travel.
- Likewise, take your dog on fun leash walks around the neighborhood regularly
- Once they are good with the paraphernalia, start taking your dog or cat on short car trips. Bring a food reward or two to make it fun - some fast food places like Sonic keep dog treats at the drive-thru so you can both get a little positive reinforcement.
- Placing a familiar-smelling item like a blanket in the car or carrier also helps pets relax.
- Drop by the vet clinic occasionally with Muffy, just to say hello or check their weight. Bring a favorite reward and ask a staff member to offer it.

On a related note, we *highly* recommend the pet carriers with snap-on tops. It's so much less stressful on everyone to just pop the top off, instead of prying Muffy out only to force her back in afterwards.

There's Stress In Numbers

Stress is additive and contagious. It's tempting to try getting all the pets in at once, and make it a family-fun event, but....Take two hyperactive kids, one mother shouting for them to calm down, then add in your incessantly barking Beagle-buddy to boot, and even the calmest Shih Tzu in the world is going to be on edge.

- Making veterinary visits an adults-only, single pet endeavor can really go a long way toward lowering the stress levels for everyone - you included. Plus, you get a lot more for your money when you can focus on asking questions and listening to the staff's recommendations without extra kids, furry or otherwise, vying for your attention.
- On the other hand, if *you* are stressed out - which is okay, and often understandable - your pet will sense that and follow suit. It's always okay to ask to wait outside during the exam, and sometimes it really is less stressful for everyone.

The same strategies can be applied when setting an appointment:

- Let us know, and we'll get you and your pet into a quiet room as quick as possible.
- If you're flexible, asking for an appointment at a slower time of day is a good move too.
- Lastly, the discount walk-in shot clinic is almost guaranteed to have a waiting room full of chaos; that's one of many arguments for paying a little more to see the doctor down the street.

Better Living Through Chemistry

Of course, there are a few pets out there who just aren't going to adapt well to the clinic, car, or carrier no matter what you try. For those guys, there are varying levels of "chemical intervention" we can try to help them out.

- **Mild Anxiety:** Pheromone sprays or collars like Feliway and Adaptil may be helpful. They're also useful initially in conjunction with the above techniques to take the edge off.
- **Moderate Anxiety:** Ask us about trying Benadryl. It often provides some sedation and is quite safe for **most** animals at the proper dose - again, *ask your vet*.
- **Severe Anxiety:** There are several sedatives and anxiolytics that can be life-savers for dogs that truly need them; all have the potential for significant side-effects and require a prescription, however, so a good chat with your vet is in order. Furthermore, pets who need this level of intervention for a trip to the vet likely have other behavior issues that need addressed. Remember, Access Vet Care offers house calls - that might be a much better option for routine care.

Lastly, but probably most important - if the stress of veterinary visits is truly tough on you and your pet, consider making an appointment solely to discuss this issue and come up with a plan of attack. You can even consider a consultation *without* your pet, if need be. Fortunately, though, most dogs and cats can learn to manage a trip to the vet with a just a bit of work and forethought on your part. I'm really not *that* bad. Plus, we have treats!

Using Rewards to Create & Shape Behavior

What Is A Reward?

A reward is anything your pet desires. Just like us, when a behavior results in getting something that is desired, that behavior is more likely to be repeated. The most common rewards used in training are:

- Food
- Touch
- Attention

Whenever a pet does something we want to encourage (or train them to perform on command), giving them any of these three will make them more likely to repeat the behavior.

Accidental Rewards

Note that Touch and Attention are rewards we often give our pets inadvertently. A good example is the dog that jumps on you in greeting. Most people will try to discourage the behavior by saying “No” or “Stop” while pushing the dog away. While this doesn’t make the dog as happy as praise and a hug, you are still touching and attending to the dog – and thus encouraging the very behavior you want to stop. You should also note that if before feeding time your pet vocalizes or acts up, you are encouraging all those behaviors by rewarding them with food.

Training Behaviors with Rewards

1. Select a favorite treat that can be easily broken into very small bits – just larger than crumbs. From now on, this should only be used for training. This keeps both desire and motivation high.
2. When training any behavior initially, give the reward immediately (within 1 second) of performance of that behavior.
3. As the behavior becomes more reliable, demand better performance for reward. For example, teaching “lay” may start with rewarding going halfway down, but you should progress to the full body in contact with the floor, then the head, then being still and calm, etc.
4. When the behavior is performed accurately and reliably, start making the reward random and intermittent. You can also alternate with different rewards – other treats, touch, or attention. This makes the behavior more reliable.

Using Rewards to Change Problem Behaviors

Every behavior your pet performs is an attempt to get a reward. Changing problem behaviors can be accomplished in three steps:

1. Figure out what reward they are seeking (usually, it is your attention)
2. Stop rewarding that behavior inadvertently, or in other situations (see above). To discourage a behavior, the best strategy is to ignore it by removing all focus and attention from the pet. Do not look at, speak to, touch, or otherwise acknowledge them until the problem behavior stops.
3. Train the pet to perform an **acceptable** behavior, such as sitting, in order to get the desired reward.

Many common behavior problems can be addressed with this method, but not all. Certain behaviors, such as excessive barking, may be self-rewarding and require other interventions. Contact your veterinarian with questions.

Handling Toxicities

Dogs eat stuff. Sometimes things you, I, or even your average indiscriminate 3 year-old would never dream of eating. And sometimes, they eat things we like (such as 2 dozen of my favorite Bourbon Balls) that aren't dangerous to us – but could be deadly to them.

If you suspect your dog has eaten something toxic:

1. CONTACT US at 812-590-3081. If it is after hours, contact Jefferson Animal Hospital (502-632-7792) or Animal Poison Control (855-764-7661). Let them know the situation and what supplies you have.
2. DO NOT automatically induce vomiting. Some things are okay to vomit, but most chemicals and cleaners, while very toxic, can cause even more damage when vomited up.
3. ONLY induce vomiting if your dog is fully conscious.
4. SAVE some of the suspected toxin if possible, or if the dog vomits, save some of that. Also bring labels/containers if applicable – all of these will help us figure out the toxin and the best course of action.
5. MONITOR your dog. Watch for changes in behavior, attitude, comfort level, etc.

Common Items That May Be Toxic

ALWAYS/SEVERELY Toxic – induce vomiting if directed and seek medical help ASAP:

- Antifreeze
- Insecticides
- Rodenticides
- Prescription medications (overdose or not their own)

Toxic – seek medical help but DO NOT induce vomiting unless directed:

Basically, any cleaning agents/chemicals YOU would know better than to swallow, such as:

- Bleach
- Household cleaners
- Detergents
- Gasoline/kerosene/turpentine/oil

Potentially toxic foods – contact medical help for instructions:

Most of these are only truly dangerous in quantity; a slice of onion won't kill a Malinois (though a chunk of dark chocolate might kill a Chihuahua).

- Chocolate
- Raisins
- Onions
- Garlic
- Macadamia nuts
- Nutmeg
- Sugar-free foods containing **Xylitol**
- Avocado
- Some mushrooms
- Coffee
- Alcohol
- Fruit pits/seeds/some leaves