

# Adult Cat Wellness

	<b>Platinum*</b> <b>\$80/mo</b> <b>\$960/yr</b>	<b>Gold*</b> <b>\$70/mo</b> <b>\$840/yr</b>	<b>Silver*</b> <b>\$50/mo</b> <b>\$600/yr</b>
Comprehensive Exam	2	2	2
Routine exam	unlimited	unlimited	unlimited
Annual vaccine boosters**	✓	✓	✓
Dewormer twice yearly	✓	✓	✓
Wellness blood count & chemistries	✓	✓	✓
Urinalysis	2	2	1
Blood pressure & cardiac blood test	✓	✗	✗
Fecal testing	2	1	1
Heartworm, FIV, FeLV	✓	✓	✓
Dentistry***	Level 2	Level 1	✗
Dental X-rays	✓	✓	✗
X-rays - 1 set	✓	✗	✗
Screening ultrasound	✓	✗	✗
Discount off other services ****	15%	10%	5%

\* Does not include \$35 one-time setup fee

\*\* Rabies, FVRCP, FeLV -or- substitute titers for vaccines with the exception of Rabies booster purchased separately

\*\*\* If Level 3 or 4 dental care is required, you only pay the difference. If your pet cannot undergo anesthesia, substitute a second Wellness bloodwork

\*\*\*\* Excludes outside specialist services & cremations

# Adult Dog Wellness

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Fecal testing	2	1	1
Heartworm & tick-borne disease testing	✓	✓	✓
Dentistry***	Level 2	Level 1	✗
Dental X-rays	✓	✓	✗
X-rays - 1 set	✓	✗	✗
Screening ultrasound	✓	✗	✗
Discount off other services ****	15%	10%	5%

\* Does not include \$35 one-time setup fee

\*\* DAPP, Lepto, Rabies, Bordetella, Lyme -or- substitute titers for vaccines with the exception of Rabies booster purchased separately

\*\*\* If Level 3 or 4 dental care is required, you only pay the difference. If your pet cannot undergo anesthesia, substitute a second Wellness bloodwork

\*\*\*\* Excludes outside specialist services & cremations



# ANIMAL URGENT CARE

*of South Orange County*

**(949) 364-6228**

[www.aucsoc.com](http://www.aucsoc.com)

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- ◆ Experienced Veterinarian on premises
  - ◆ Fully equipped to handle any emergency
  - ◆ Caring, compassionate staff trained in emergency care
  - ◆ Conveniently located in Saddleback Valley - adjacent to Mission Viejo Animal Shelter
- 



## **ANIMAL URGENT CARE**

*of South Orange County*

**(949) 364-6228**

[www.aucsoc.com](http://www.aucsoc.com)

**28085 Hillcrest, Mission Viejo, CA 92692**

## **ANIMAL URGENT CARE**

was established in 1979 by 14 local veterinarians. Now, over 40 doctors refer their emergency cases to us for superior care and monitoring.

### **TIME**

In emergency situations - time is of the essence. Our centrally located emergency clinic may make the difference between life or death when your regular veterinarian is not available.

### **EQUIPMENT**

We provide the latest in surgical, anesthetic, diagnostic and monitoring equipment available. We are fully prepared to assist in any emergency.

### **Hours**

*Monday - Friday*  
6 PM - 8 AM

*Weekends*  
12 noon Saturday until  
8 AM Monday

*Open 24 hours on major holidays*

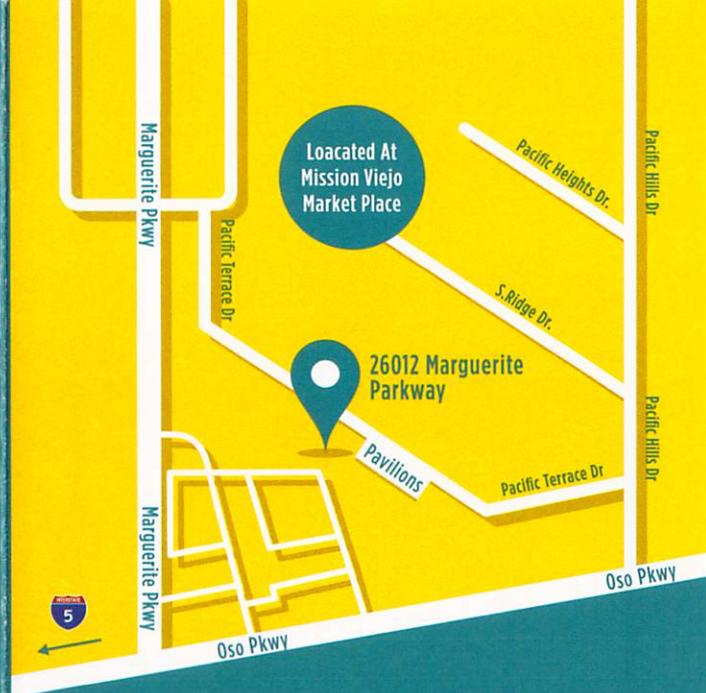
**(949) 364-6228**  
(dog-n-cat)



## Examples of Conditions to Present to Emergency

- ✓ Trauma / Laceration
- ✓ Poison exposure
- ✓ Vomiting, diarrhea, or severe salivation
- ✓ Acute paralysis
- ✓ Seizures
- ✓ Vestibular (vertigo) disease
- ✓ Allergic reactions, hives or swelling
- ✓ Difficulty breathing
- ✓ Bleeding or bloody discharge
- ✓ Foreign body ingestion
- ✓ Pale or Cyanotic (blue) gums
- ✓ Pain or limping
- ✓ Difficulty Urinating
- ✓ Frequent Urination
- ✓ Swelling or inflammation of eyes
- ✓ Heat Stroke
- ✓ Snake/insect bite

Bright Care Animal ER is here for you and your pet when minutes count and your family veterinarian is not available or when your pet needs advanced care.



Open  
**24 Hours A Day**  
7 Days a week

📍 26012 Marguerite Parkway,  
Suite 0  
Mission Viejo, CA 92692

☎ (949) 716-9270

www.BrightCareVet.com



**BRIGHTCARE**  
VETERINARY GROUP

**ANIMAL ER**

Open 24 Hours A Day  
7 Days A Week



Advanced Technology  
Innovative Medicine  
Compassionate Care

# The Most Advanced Emergency Veterinary Hospital in Mission Viejo

## State-Of-The-Art Technology

Bright Care Animal ER has a modern facility with state-of-the-art equipment designed to properly diagnose injuries and diseases, ready to treat them on the spot. Our doctors and support staff provide emergency service for neurological emergencies as well as general emergencies.

Our emergency doctors have access to MRI, CT scan, digital radiography, ultrasound, endoscopy, many different in-house blood/lab tests, oxygen therapy, modern surgical suites, and experienced support staff to help your pet and you during emergencies. Whether it is a simple skin laceration or a serious ailment we are here for you!



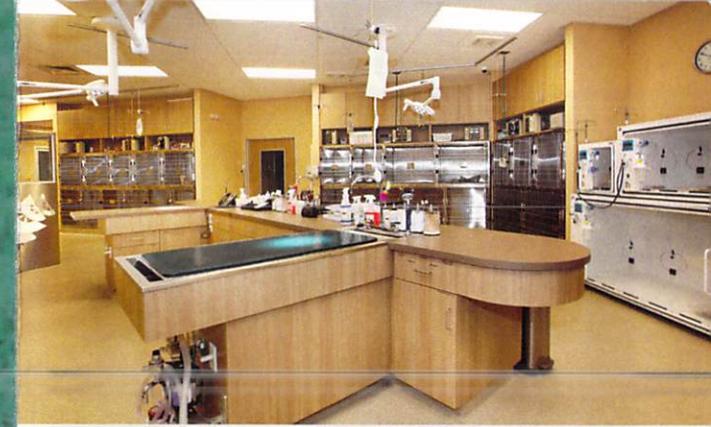
Bright Care Animal ER has a team of experienced emergency veterinarians that can handle many emergency situations. We understand that emergencies can and will happen at all hours of the day, night, weekends and holidays, and that's why we offer 24/7 service. We have experienced emergency doctors and technicians on premise 7 days a week. Our goal is to share our experience, expertise, and enthusiasm to make the world a better place for our patients and their pet parents!



## Feel at Home

Bright Care Animal ER understands how important your pet is to you and that's why we offer the best and most compassionate care available. Your pet will feel loved and at home when receiving comfort and care while on the road to recovery.

We believe in working closely with your primary-care veterinarian so they remain informed on the status of your pet. Bright Care Animal ER will act as an extension of your veterinarian to help you and your pet during the hours that they are not available or in situations that advanced care, diagnostics, or treatments are required.



## Emergency Services

- ✓ Hospitalization and Treatment
- ✓ Digital X-ray
- ✓ Ultrasound
- ✓ Endoscopy/Endoscopic Foreign Body Removal
- ✓ Full in-house Laboratory for immediate results
- ✓ Blood Transfusion
- ✓ Wound and Laceration Repair
- ✓ Oxygen Therapy
- ✓ Treatment and Management of Seizures
- ✓ Treatment and Management of Vestibular Disease and Other Neurological Conditions
- ✓ Treatment of Acute Paralysis and Spinal Conditions
- ✓ On-site CT scan and MRI
- ✓ Modern operating rooms for emergency surgeries (GI foreign body, GDV, bladder stones, etc)
- ✓ In-house board certified Neurologist/Neurosurgeon
- ✓ Consulting specialists in surgery, cardiology and Internal medicine/ultrasound
- ✓ Thoracocentesis and Abdominocentesis



## **VACCINE ALLERGIC REACTIONS**

Vaccination of your pet is an important part of keeping them healthy by preventing serious illness. At Baker Ranch Animal Hospital we coordinate with you to make appropriate vaccination recommendations for your individual pet. We also monitor regional reports about the prevalence of illnesses in our area, to customize the care your pet needs.

When we vaccinate, we are stimulating your pet's immune system to develop antibodies - which will help your pet fight off the natural infection if they encounter it. It is not practical (or cost effective) to test antibody levels in each pet, so we are guided by ongoing research into the average frequency of vaccination needed to provide immunity to most pets.

### **What is considered NORMAL after vaccination?**

Your pet should be able to go home and resume normal activity the same day, but it is normal to experience some symptoms for up to 24hrs after vaccination:

- Soreness at the injection site
- Mild fever (shivering/ trembling)
- Lethargy or reduced appetite
- Reluctance to play, reduced activity
- sneezing/ reverse sneezing after a nasal vaccine.

These are all normal effects and typically do not require any treatment although you are welcome to call us with any concerns you have and rarely we may dispense some anti-inflammatory medications to provide more comfort. The above symptoms are NOT considered a vaccine reaction. Your pet may continue to have booster vaccinations without any change to their schedule.

### **What is NOT NORMAL / What is considered a REACTION?**

Very rarely, a pet may have a true allergic reaction to a vaccine and this can be dangerous or potentially life threatening. Typically allergic reactions will occur within the first 24hrs after a vaccine is administered - and more often within the first two hours.

The following symptoms list what to monitor for:

- Vomiting or Diarrhea
- Collapse or severe weakness (limp body)
- Difficulty breathing
- Pale gums
- (Hives or facial swelling)

These symptoms can be part of an anaphylactic reaction and **DO REQUIRE PROMPT EMERGENCY TREATMENT**. Baker Ranch has medicine and equipment to remedy these reactions during their normal business hours, so please call us immediately. IF after hours, please contact **ANIMAL URGENT CARE OF ORANGE COUNTY on 949 364 6228**.

Statistics show that the chance of a vaccine reaction is very low - around 13 reactions per 10,000 doses of vaccine given. Some pets are more likely to react - typically young toy breeds of dogs, but some breeds are also more susceptible to vaccine reactions: Chihuahuas, Dachshunds, Maltese terriers, French and English Bulldogs, Pugs, Boxers and Pit Bull terriers have been shown to have a higher incidence of reactions.

If your veterinarian feels your dog may be at increased risk, they may suggest separating the vaccines given to several visits. This has been shown to help lower the risk of reaction, in some cases a "pre-med" may be given using Diphenhydramine injection.

If your pet has had a reaction to a previous vaccination it is very important to tell the veterinary staff before your pet receives any further vaccinations. Be prepared to describe exactly what happened and which vaccine was thought to cause this.

You may need to pay extra for pre-meds and monitoring in the hospital, and your vet may recommend separating vaccine visits and a reduced number of vaccines given.

If the vaccine was administered at Baker Ranch Animal Hospital, please inform us as soon as possible as we will alert the vaccine manufacturer. They may help cover or reimburse costs associated with emergency treatment, as well as determine if there are any trends for reactions within each batch/ lot of vaccine.

### **Rabies vaccine**

In CALIFORNIA it is state law that your dog is kept vaccinated against Rabies virus. At Baker Ranch Animal Hospital we also insist that all cats are vaccinated against Rabies virus, in order to protect your pet and our staff against this fatal disease. If your pet has had a previous reaction to the Rabies vaccine they may need to have a pre-med prior and close monitoring following the vaccine.

In extremely rare cases, if your pet has had an anaphylactic reaction to Rabies vaccine, or your pet could have a life threatening relapse of an illness (auto-immune condition); you may enquire about an exemption approval. Baker Ranch Animal Hospital can assist you with completing a county exemption request, but there are very strict restrictions placed on your pet by these exemptions, as well as a low likelihood of approval being granted. Exemptions are granted by the County Public Health Officials, and in recent years they have taken a hard line, as the number of rabies cases in the area continues to grow each year.



### **Fleas - Know your enemy!**

Fleas are a wingless insect that live on and off dogs, cats and some wildlife. They survive by biting through the skin and drinking blood and can reproduce at an alarming rate (a female can lay 200+ eggs per day in the home and yard). You rarely see the adult fleas as they are very small, run very quickly through the fur and can jump very long distances. In warm climates such as ours, they can also live in the grass, home and yards for many hours without dying, waiting for their next meal. They will occasionally bite humans, but they prefer the taste of dogs and cat's blood - so relying on seeing bites on yourself is not a good indicator of whether your pet has fleas.

Fleas also don't discriminate between very clean and hygienic pets and homes or dirty animals - they don't care. Washing your pet will not eliminate fleas (but it will wash off the flea feces).

If your pet is not on flea control every month, they will eventually or even frequently get bitten by fleas which can quickly lead to an infestation.

Unfortunately fleas are hard to eliminate - older "over the counter" products like Frontline and Advantage do not work very well. Also retail brands like Hartz, PetArmor and Zodiac are also not good at killing fleas anymore - as fleas have mostly become resistant. Therefore do not waste money on pet store or grocery store products.

It is important to discuss the best product and dose for your dog or cat with your veterinary team. They know what will work best for your family, as well as have the best prices and product guarantees.

Newer products like Simparica, Nexgard and Revolution Plus are very safe, work reliably and quickly and are easy to administer.

If you already have fleas, you will need to treat ALL pets in your home for at least 3 consecutive months - AS WELL AS treating the home and yard with an environmental spray, fogger product or use a pest control company. The home and yard treatments can be purchased from home improvement stores like Home Depot and Lowes. Be aware that cats and people with

respiratory problems can be very sensitive to the sprays, so hopefully another family member can apply them (and move cats out of the home for a few hours). If you have an indoor fish tank, please cover it and switch off the pump for 1-2 hrs while applying household sprays.

Wash all the pets bedding on a hot wash , including any sheets and bedlinens that your pet sleeps on as well. Vacuuming everywhere - particularly mattresses, the couch, under furniture and around the edges of the room in hard floor areas. The vacuum actually attracts the fleas and larvae out as it is warm and vibrates (like an animal). Then empty the vacuum into a bag, seal it and immediately dispose of it in trash outside.

\*\* It is a myth that fleas will only live in carpets and turf grass, they will happily live in hard floors, leather couches, artificial grass and hardscape surfaces as well, they prefer darker areas \*\*

\*\* It is also a myth that homes in gated communities cannot get fleas - fleas have zero respect for gates, walls or security guards \*\*

Fleas also transmit other illnesses - the most common are tapeworms - tapeworms look like rice grains and you might see them near your pet's anus, or on the surface of the feces. Tapeworms hatch from the flea when your pet grooms itself and accidentally eats the flea.

Fleas can also transmit typhus -which is a bacteria that causes fever and illness in humans (typhoid fever).

Flea bites can also trigger allergic reactions in dogs and cats causing severe itching, skin and ear infections and necessitate much more intensive medical care.

Fleas can be picked up at the groomers, on walks from grass, from the park or beach. If you live in a condo or townhouse, fleas will easily jump from one unit to the next. Please inform your leasing office or landlord if you notice fleas, as they may cover the cost of a pest control treatment to prevent a big infestation.

So, don't panic if you find a flea - just call us and we can fix that problem quickly and safely. You are not alone - we see fleas every day!

Dr Barry -  
Baker Ranch Animal Hospital 949 600 8310.



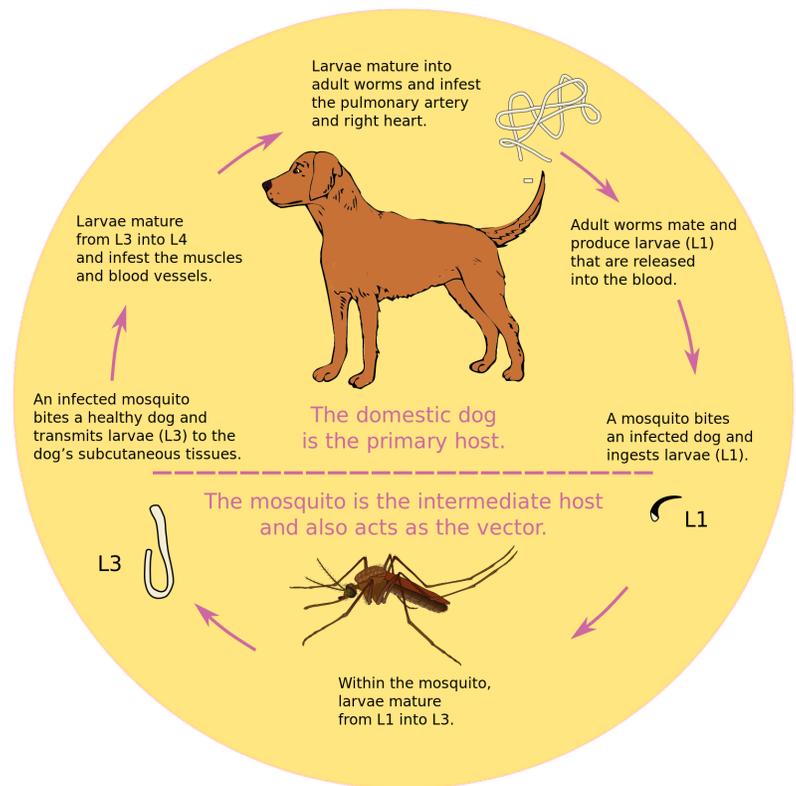
## Heartworm disease in dogs

### What is a Heartworm?

Heartworm (*Dirofilaria immitis*) is a fairly large worm - up to 14 inches long - that, in adulthood, lives in the heart and pulmonary arteries of an infected dog. Dogs and Cats acquire this infection through **mosquito bites** as mosquitoes readily drink larval heartworms from infected dogs or cats, to nurture their development, and ultimately carry them to new pets.

### Early Infection

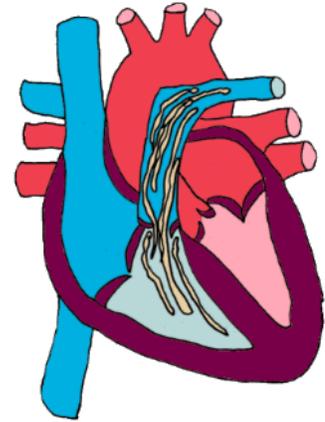
The migration of the young worm once it enters the pet's body is a long one: a journey of five to seven months. In that time, the worm is growing, maturing, and preparing to mate. While all this



is happening, nothing is happening to the pet and no one knows an invasion has taken place.

### **Worms in the Pulmonary Arteries**

At the end of this long migration, the worm has reached its destination: a pulmonary artery. The worm is large and takes up a lot of space in the artery. The pet's immune system recognizes foreign proteins present and launches an attack but the immune system is designed to work against smaller invaders such as bacteria or viruses. The heartworm is too big to be killed effectively this way and the result is inflammation and thickening in the arteries.



Blood flow becomes turbulent and the tendency to form abnormal clots is increased. Adding to this unpleasant mix is a bacterium called *Wolbachia pipientis*, which normally lives inside the heartworm but is released in large numbers every time the heartworm molts to a new developmental stage, gives birth to its young, or dies. These bacteria contribute heavily to the resultant inflammation occurring in the pulmonary arteries and lung tissue itself. Blood vessels get stiff and cannot operate normally, creating a high-resistance area that the heart must pump through.

The inflammation calls in numerous immune cells, which in turn generate even more inflammation as they attempt to destroy a parasite as relatively large as a heartworm. The lung itself becomes inflamed and in time becomes scarred, creating an even larger high-resistance area for the heart to pump through.

If there are many worms, the problem is multiplied. Some arteries may actually be obstructed by the number of worms. This leaves areas of the lung unable to receive circulation, which means these areas cannot participate in oxygen exchange.

## ***Dying Worms***

As if that wasn't bad enough, the real damage comes from worms that have died in place. The dead body of the heartworm breaks apart and is carried through the vasculature of the lung until it lodges somewhere and obstructs blood flow. The arteries that are supposed to form delicate branches, branching tinier and tinier, are now blunted and closed off, similar to a tree branch broken off close to the tree trunk. As above, this leaves more areas of lung blocked off and unable to receive blood and participate in oxygen exchange.

## ***Scarring***

All the inflammation generated by the worms as well as the inflammation generated by the areas of lung that aren't receiving proper circulation ultimately translates into scarring in the lung vasculature. Scarring and fibrosis makes it difficult for the heart to pump blood through the lung effectively. There is a point where the heart is not strong enough to pump blood through all the narrowed, stiff damaged capillary beds. Right sided heart failure ensues.

## ***How Many Worms are too Many?***

In naturally infected dogs, the number of worms does not correlate to severity of disease, even in dogs of the same size. The main reason for this is activity level. The factors that come into play to create severity of disease are: the dog's activity level (the more active the dog, the fewer worms are needed to create disease), the size of the dog, and the number of worms the dog has. The infected dog that sits around at home may appear relatively normal but once some exercise or even anxiety puts more demand on his heart, symptoms erupt.

In cats, usually just 1 adult worm is enough to obstruct their heart and cause respiratory issues such as coughs, or weezing.

### **Symptoms of Heartworm Disease**

- Coughing
- Shortness of breath/panting
- Easy tiring/intolerance of exercise
- Fluid accumulation in the abdomen or chest
- Nose bleeds
- Sudden death

Obviously, not all of these things necessarily occur in the same dog or cat, nor is there necessarily a progression. An infected pet may have no symptoms at all or may develop any of the signs on the list at any time.

### **Chronic Immune Stimulation and Glomerular Disease**

When a pet goes without treatment for heartworm infection, its immune system becomes chronically stimulated. Antibodies, which are not only important tools of the immune system but are inflammatory proteins, are produced in high amounts all the time. These antibodies can cause a lot of trouble by dropping into the delicate membranes of the eye, blood vessels, joints, and kidney. Antibodies stuck in these areas, call in inflammatory cells and damage these delicate membranes, thus setting up tremendous tissue damage and pain. In particular, heartworm infection is a cause of a type of kidney inflammation called glomerular disease. Fortunately, this inflammation and its consequences can frequently be resolved by treating heartworm infection.

## **Caval Syndrome: A Special Catastrophe**

Caval syndrome is an especially disastrous form of heartworm disease. Here, there are so many worms (around 100) that the entire right side of the heart is filled with worms and they are backing out into the large veins that feed the right side of the heart. Usually there have been no signs of heart disease prior to the collapse, shock, and red blood cell destruction associated with this syndrome. Death usually occurs within one to two days and the only effective treatment is to open the dog's jugular vein and physically remove the worms with a clamp. If enough worms can be removed to re-establish blood flow, the dog may survive.

## **Detection**

Heartworms can be detected by running a simple blood test usually 1 drop or 3 drops depending on the type of test. The results are often ready in 15 min. And are available for both dogs and cats and should be done annually. We recommend running a heartworm test prior to starting your pet on a preventative.

## **Prevention**

Heartworm preventive medications are used to kill larval heartworms that have managed to gain access to the dog's body. At this point, the products available are intended for monthly use, with the exception of Proheart6 which is a biannual injection, or Proheart12 which is a yearly injection. This means each time they are given they kill all the heartworm larvae (stage L3 and L4) that have accumulated in the past month.

There are currently many choices, topical, oral and even injectable. These are the products that we carry.

**Heartgard Plus-** Oral monthly chewable. Also treats roundworms and hookworms.

**Interceptor Plus-** Oral monthly chewable. Also treats roundworms, hookworms, whipworms, and tapeworms.

**Revolution Plus-** Monthly topical treatment. Also treats fleas, sarcoptic mange, ear mites, ticks, roundworms and hookworms. Used for cats

**Proheart 6-** An injection lasting 6 months. Also treats hookworms.

**Proheart 12 -** A yearly injection. Also treats hookworms.

Ask us about what heartworm prevention is appropriate for your dog. Cat's can get heartworm disease too. This is not just a dog problem but a cat one too.



## **We do not recommend feeding a Grain-Free food.**

**The information contained in this handout is the reason why.**

### **Why is the FDA Investigating Grain-Free Dog Food?**

The FDA is investigating a potential dietary link between canine dilated cardiomyopathy (DCM) and dogs eating certain grain-free dog foods. The foods of concern are those containing legumes such as peas or lentils, other legume seeds, or potatoes listed as primary ingredients. The FDA began investigating this matter after it received reports of DCM in dogs that had been eating these diets for a period of months to years. DCM itself is not considered rare in dogs, but these reports are unusual because the disease occurred in breeds of dogs not typically prone to the disease.

Between January 1, 2014 and April 30, 2019, the FDA received 524 reports of DCM (515 dogs, 9 cats), and most reports were submitted after the FDA's first public alert in July 2018. The total number of pets affected is greater than 524 because some reports included multi-pet households.

### **What is Canine Heart Disease or Dilated Cardiomyopathy (DCM)?**

Dilated cardiomyopathy (DCM) is a type of canine heart disease that affects the heart muscle. The hearts of dogs with DCM have a decreased ability to pump blood, which often results in congestive heart failure. Some breeds, especially large and giant breeds, have a predisposition to DCM. These breeds include Doberman Pinschers, Great Danes, Newfoundlands, Irish Wolfhounds, and Saint Bernards. While DCM is less common in medium and small breeds, English and American Cocker Spaniels are also predisposed to this condition.

The reports submitted to the FDA span a wide range of breeds, including many without a known genetic predisposition. When early reports from the veterinary cardiology community indicated that recent, atypical cases in breeds like Golden Retrievers, Labrador Retrievers, Whippets, Bulldogs, and Shih Tzus all consistently ate grain alternatives in their diets, the FDA took notice.

## **Should you be Concerned About Grain-Free Dog Food?**

In the FDA's July 2019 update on diet and canine heart disease, they examined labels of dog food products reported in DCM cases to determine whether the foods were "grain-free" (defined as no corn, soy, wheat, rice, barley or other grains), and whether the foods contained peas, lentils, chickpeas, beans, or potatoes (including sweet potatoes). Their report states that more than 90 percent of foods reported in DCM cases were grain-free, 93 percent of reported foods contained peas and/or lentils, and 42 percent contained potatoes/sweet potatoes.

The FDA's July 2019 update includes the names of dog food brands that were named 10 times or more in reports submitted through April 30, 2019 linking DCM to pets. Most reports were for dry dog food, but raw, semi-moist and wet foods were all represented. Below are a few names of the companies who had reports linked to DCM and we would recommend to not feed your pet these brands.

- Acana (67 reports)
- Zignature (64 reports)
- Taste of the Wild (53 reports)
- 4Health (32 reports)
- Earthborn Holistic (32 reports)
- Blue Buffalo (31 reports)
- Nature's Domain-Kirkland Brand (29 reports)
- Fromm (24 reports)
- Merrick (16 reports)
- California Natural (15 reports)
- Natural Balance (15 reports)
- Orijen (12 reports)

- Nature's Variety (10 reports)
- Nutrisource (10 reports)
- Nutro (10 reports)
- Rachael Ray Nutrish (10 reports)

In the Dec. 1 version of the Journal of the American Veterinary Medical Association, Lisa M. Freeman, DVM, Ph.D., DACVN, provided an update to the research on DCM and emphasized the issue is not just grain-free diets. She calls the suspected diets “BEG” diets (boutique companies, exotic ingredients, or grain-free diets).

“The apparent link between BEG diets and DCM may be due to ingredients used to replace grains in grain-free diets, such as lentils or chickpeas, but also may be due to other common ingredients commonly found in BEG diets, such as exotic meats, vegetables, and fruits,” Freeman wrote.

The FDA encourages pet owners to report cases of dogs and cats with DCM that they suspect to be linked to diet by using the [Safety Reporting Portal](#).

As a general rule of thumb, the best thing you can do for your dog's dietary health is to consult with us. Together we can weigh the pros and cons of your dog's diet and, if necessary, monitor your dog for signs of DCM. The diets that we recommend are Royal Canin, Science Diet or Purina ProPlan. We are here to answer any of your questions you have about grain-free diets.



## Home Dental Care

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We recommend brushing your pet's teeth daily if possible, or at least 4 times a week. Here are some steps to help your pet tolerate teeth brushing.

### **STEP ONE:**

Start by massaging the animal's cheeks, make this a pleasant experience by giving your pet a lot of praise. Do not make this a long procedure, a few seconds will do for starters. Gradually increase the amount of time you spend massaging the animal's cheeks. A crunchy treat is a great reward when finishing each session.

### **STEP TWO:**

After you and your pet feel comfortable with this exercise the next step is to carefully place your fingers between the pet's cheek and gum. Gently massage the gums-again make this as pleasant as possible by giving lots of praise. Gradually build up the amount of time you spend massaging the gums until you feel comfortable with this step.

### **STEP THREE:**

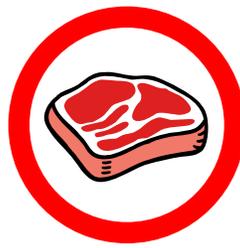
Repeat the last step using gauze, a piece of nylon stocking, cloth wrapped around your fingers or a soft finger toothbrush as this will increase the cleaning potential and get your pet used to a rougher surface in its mouth.

### **STEP FOUR:**

Congratulations! You have finally reached the time to use a toothbrush. Most any small, soft bristled toothbrush will do. We recommend a special type of toothpaste to use. Most toothpastes are an appealing flavor for animals, and some contain natural enzymes to help break down plaque. Animals object to the foaming action of human toothpaste so it is best to avoid using human toothpaste.

**One word of caution:** It may take several weeks to get your pet used to having its teeth brushed. Brushing one tooth at a time with a treat as a reward after is a good way to get your pet used to the toothbrush. Don't get discouraged if your pet won't allow a toothbrush near their mouth on the first day.

Preventive care is highly recommended so that cleanings under anesthetic and surgical repair can be minimized. Brushing your pet's teeth can be a worthwhile investment in their overall health and well-being.



## The Raw Meat Controversy

There are few topics in the field of veterinary nutrition that invoke such strong opinions and arguments as the feeding of raw meat to dogs and cats. Many people appear to be solidly entrenched in their views - often either vehemently for or against this feeding practice. Unfortunately, much of the information on both sides is based on anecdotes, theoretical concerns and personal opinion. While objective information is increasing, this is still a field governed largely by passion and opinion.



Raw meat feeding became mainstream largely in response to publication of the books *Give Your Dog A Bone* and *The BARF Diet* by Dr. Ian Billinghurst. The latter book introduced the term “**BARF**” (“Biologically Appropriate Raw Food” or “Bones And Raw Food”), which has become a widely-used term. These books, which lack any scientific evidence, advocate the feeding of raw meat and bones to dogs based on the author’s belief that commercial pet food is contributing to serious health problems in pets. While anecdotal, these books and similar books published since then have no doubt contributed greatly to the rapid increase in the popularity of this feeding practice.



## “Benefits” Of Feeding Raw Meat

Many proponents of raw meat diets have made very strong claims, including “Dogs fed cooked and processed food and no bones will always develop a weakened immune system and poor dental health.” Some have reported that raw diets are useful for the prevention or control of a wide range of disease conditions, including chronic digestive, allergic and metabolic diseases, bladder stones, feline lower urinary tract disease, intermittent vomiting and diarrhea, seborrhea sicca and recurrent ear infections. More specific claims of the “disappearance” of many dental problems, skin problems, ear infections, anal sac problems, arthritis, incontinence, keratoconjunctivitis sicca (“dry eye”), diabetes and reproductive problems, and improvement of behavioural problems have also been made. Another claim that has

been made is “As a general rule, any genetic fault that your pet may have inherited will have minimum chance of expression when the BARF diet is fed.” **None of these claims are based on reviewed scientific studies.** The only scientific evidence is a recent study that reported dogs fed raw meat have lower rates of non-intestinal infections (e.g. ear infections). There is also frequent discussion about the presumed negative effects of cooking food, including destruction of vitamins, enzymes, “anti-ageing factors”, reduced protein value and availability, and production of “foreign foods.” There is no scientific evidence that cooking food has a negative impact on the health of a pet that is being fed a properly balanced diet.

Although there is one study and a large number of anecdotal claims regarding potential positive health effects of feeding raw meat to pets in some situations, there are also serious concerns about the risks to pets and people from bacteria in raw meat, like *Salmonella*. Proponents of these diets tend to dismiss infectious disease concerns, with statements such as “*Salmonella* and *Campylobacter* are of absolutely no consequence to a healthy dog.” or “The FDA has stated that *Salmonella* is not harmful to dogs.” These statements are not true. Although these pathogens are more likely to cause illness in humans, both are also capable of causing disease in dogs and cats.

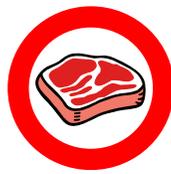
## Problems With Feeding Raw Meat

There are three main concerns with respect to raw meat feeding:

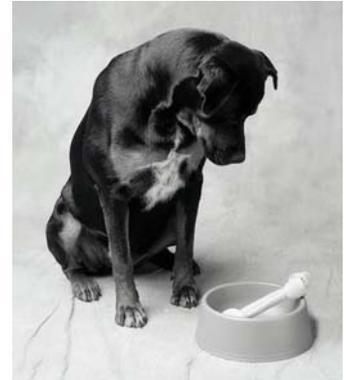
- 1) **Infectious disease risks** (to pets and owners)
- 2) **Dietary nutritional imbalance** (in pets)
- 3) **Foreign bodies** (i.e. pets swallowing bones)

Of these, **infectious disease risks** have likely received the most attention and this is the area where more published research is currently available. As with any raw meat, there is the potential for contamination of raw meat-based pet foods with intestinal pathogens (enteropathogens). *Salmonella* spp. has gathered the greatest attention as a possible risk, however *Campylobacter*, *Clostridium difficile*, *C. perfringens*, *C. botulinum*, *E. coli*, *Yersinia enterocolitica*, *Listeria monocytogenes* and enterotoxigenic *Staphylococcus aureus* are also of concern. A variety of other bacterial and parasitic pathogens could also be relevant in certain situations.





**Contamination of raw meat with bacteria is common, and expected.** Studies of raw meat diets for dogs and cats have reported *Salmonella* contamination rates of up to 80%. *Clostridium difficile* can be found in 4-8% of diets. *Escherichia coli* O157:H7, a strain of *E. coli* which is very dangerous in people, has also been found in raw dog food. There are various studies reporting high rates of *Salmonella* shedding in pets fed raw meat. A recent study reported that 44% of dogs that ate raw meat diets contaminated with *Salmonella* shed the bacterium in their stool, some for up to 11 days. Another study reported that, compared to dogs fed cooked diets, dogs fed raw meat were 23 times as likely to shed *Salmonella* in their stool and 17 times as likely to shed ESBL *E. coli* (a highly drug-resistant type of *E. coli*).



Most dogs and cats that ingest *Salmonella* do not get sick. However, *Salmonella* can cause disease in dogs and cats, including fatal infections.

**We strongly recommend that you do NOT feed your pets raw meat products, either as their whole diet or as a component of their diet.** The infectious disease risk to animals and people alone far outweighs the evidence that feeding raw meat is beneficial to pets.



### Public Health Concerns

There are significant concerns about public health risks associated with the feeding of raw meat or raw animal-derived treats. These focus on bacterial infections that could be acquired from handling food, contamination of cooking or other household surfaces, or contact with the pet's stool. The main concern involves *Salmonella*, although other bacteria such as *Campylobacter*, *E. coli*, *Staphylococcus aureus* and *Listeria monocytogenes* may also pose a risk. Outbreaks of salmonellosis in people have been caused by ***Salmonella*-contaminated dog treats** such as **pig ears**. Infections caused by handling raw meat diets have not been reported, however that does not mean they do not occur. It is unclear whether contact with raw pet food is even considered in investigations of salmonellosis, and most cases probably occur as sporadic infections, not outbreaks which tend to get much more attention.

### Pets That Should Never Be Fed Raw Meat

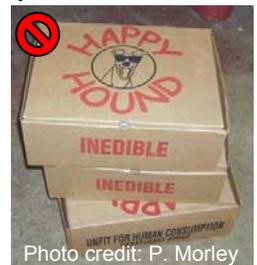
It is reasonable to recommend that raw meat or treats **never** be fed to pets that have contact with individuals (human or animal) who are at higher-than-average risk of significant illness if they are exposed to the pathogens which can be found in raw meat. More specifically, raw meat should never be fed:

- ▶ to pets that live in a household with an infant, elderly individual or person with a weakened immune system.
- ▶ to pets that visit hospitals, nursing homes or similar facilities.
- ▶ to pets that live in a household with another pet that is very old or that has a weakened immune system.
- ▶ to puppies and kittens, because young animals may be more likely to develop infections, and are more susceptible to the effects of nutritional imbalances.

### Reducing The Risks

**We recommend that you do NOT feed raw meat to pets.** However, if you choose to feed raw meat, taking the following precautions will help **reduce** (but will not eliminate) the risks to your pet and your family.

- Raw meat should be purchased from reputable suppliers. Do not feed condemned meat or any meat that is unfit for human consumption (see picture right).
  - ▶ **If you wouldn't eat it, don't feed it to your pet!**
- Any raw meat that is not used immediately should be **kept frozen**.
- Frozen meat should be thawed in a refrigerator on the bottom shelf, ideally in a sealed container. There should be no contact of raw meat with any other food items.
- Thawed meat should be used within 48 hours.



- **Prevent contamination of kitchen surfaces** when handling raw meat. If the meat is prepared in the kitchen, implements such as cutting boards and knives should be designated for use with raw meat only. All items in contact with raw meat should be thoroughly washed immediately after use.
- **Wash your hands** thoroughly with soap and water, or use an alcohol hand sanitizer after contact with raw meat, or items that have been in contact with raw meat (e.g. kitchen utensils, food bowls).



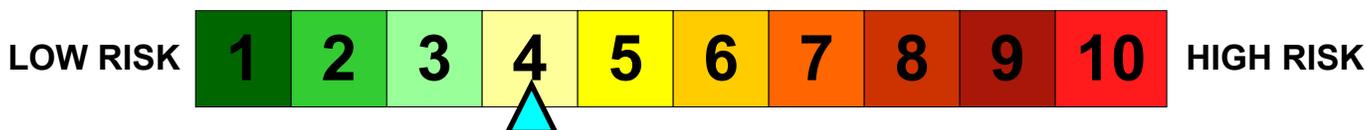
- Uneaten raw meat should not be left in food bowls, because harmful bacteria can grow quickly in the meat at room temperature. Any food not promptly eaten by your pet should be discarded.
- **Food bowls and water bowls should be disinfected regularly.** Scrub bowls with soap and water, then apply a disinfectant and allow the bowls to sit for 10-15 minutes. Rinse the bowls again thoroughly before using them again.
  - ▶ This will reduce but not necessarily eliminate bacteria like *Salmonella*.
- Stainless steel food and water bowls may be preferable since their surfaces are more resistant to damage. Damaged surfaces are more difficult to disinfect.
- Food and water bowls of pets fed raw meat should be considered contaminated, and contact with them should be restricted. **Young children should never have contact with a food or water bowl of a pet fed raw meat.**
- As always, care should be taken when handling stool or areas contaminated by stool from any pet, especially if it is fed raw meat.
- If your pet develops diarrhea, consult your veterinarian and ensure that he/she knows that you feed your pet raw meat. Despite statements made by some raw food proponents, **diarrhea is never “normal” in animals fed raw meat.**



### Disease Risk

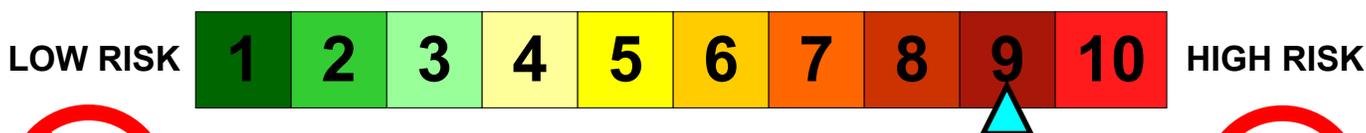
The disease risk to a member of the general population from handling raw meat depends on several factors, particularly how an individual handles raw meat and associated hygiene practices. The same risk applies to handling the stool of animals fed raw meat. In general, the disease risk from feeding raw meat to pets is likely:

#### HEALTHY ADULTS / OLDER CHILDREN



Groups at higher risk of developing serious infection and complications from pathogens that can be found in raw meat and the stool of animals that are fed raw meat include immunocompromised individuals (e.g. HIV/AIDS, transplant and cancer patients), infants and young children less than five years of age, and the elderly. For members of these groups, the disease risk from feeding raw meat to pets is:

#### YOUNG CHILDREN / IMMUNOCOMPROMISED PERSONS



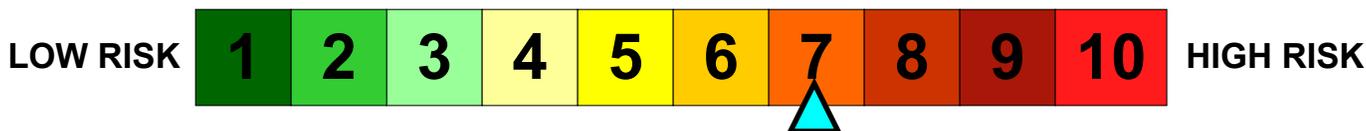
**Pets that have contact with members of these high-risk groups (i.e. part of pet visitation/therapy programs, or in the household) should never be fed raw meat.**



### Carriage Risk

The disease risk to a healthy pet that is fed raw meat is likely relatively low. The pathogens found in raw meat can make animals sick, but in many cases the animal simply carries the bacteria in the intestine for a time, and passes them in their stool, without ever becoming ill. However, the presence of the pathogens in the stool poses a zoonotic risk to the animal's owners and other people. The **risk of a pet fed raw meat becoming a transient carrier of a significant zoonotic pathogen** is:

#### HEALTHY PETS FED RAW MEAT



### Additional Information – Safe Handling of Raw Meat

- [http://www.cdc.gov/ncidod/dbmd/diseaseinfo/foodborneinfections\\_g.htm#consumersprotect](http://www.cdc.gov/ncidod/dbmd/diseaseinfo/foodborneinfections_g.htm#consumersprotect)
- <http://www.fightbac.org>



## *Suggestions For Home Dental Care*

**If we didn't brush our own teeth, after a day, our breath would stink. After a week, we would have a lot of plaque build up. After several weeks, we would develop tartar and gingivitis. Although we can perform a thorough dental cleaning under anesthesia, in between cleanings, some home care is needed to help slow the progression of dental disease.**

*Ideally, tooth brushing is the most effective way to remove plaque and slow tartar formation. You should use a toothpaste designed for dogs or cats (eg. CET brand enzymatic toothpaste) and you can use either a pet toothbrush, a finger brush, or a soft baby toothbrush. There are excellent videos on YouTube demonstrating the best technique to use (eg AKC Vet's corner - How To Brush Your Dog's Teeth). Start slowly and gently increase the time spent. Toothpaste and toothbrushes are available here, from **BAKER RANCH ANIMAL HOSPITAL**.*

*\*If your pet will not tolerate tooth-brushing there are some alternative products that can help - ask your veterinarian if they would be appropriate if your pet needs to stay on a prescription diet or medication.*

1. **BREAKABLES** - enzymatic chews - these are very effective chews and most dogs LOVE the taste. They are a safe form of rawhide that will not cause an intestinal obstruction. They are coated with a natural enzyme that helps destroy plaque. The chewing action also increases saliva which also naturally helps reduce plaque.
2. **DENTAL DIETS** - Royal Canin Dental, Hill's T/d, Hill's ORAL CARE or Purina Veterinary Dental. These are great products for dogs and cats (unless they need to stay on an Rx diet). The kibble pieces are larger than normal and they have a mechanical action to clean the teeth.
3. **DENTAL TREATS** - Milk Bones Brushing Chews - These have the VOHC Seal of approval for an effective tartar removal.
4. **PLAQUE OFF by PRO DEN** - this is a natural seaweed extract which helps prevent bacteria sticking to the teeth and so reduces plaque formation. It is a tasty powder which you apply onto your dog or cats food.
5. **ORAL RINSES/ WATER ADDITIVES** - these generally contain an anti-bacterial ingredient to help reduce oral bacteria. They can be very effective to help smelly breath but some pets dislike the taste. Some products are more effective than others.

***Most products listed above are available at Baker Ranch Animal Hospital.***