

The following information sheet is one of three currently being compiled from daily discussions on the greyhound-l listserv. These three info sheets (GH Medical, GH General Info, and GH Resources/Supplies) are unofficial compilations - in other words, these are my *pet projects* as opposed to official FAQ files. I maintain and update these info sheets as new information crosses my e-mail account. I accept any and all updates, comments, corrections, and additions to these info sheets: please send mail to greyhoundadmin@abap.org

All data is provided as ****information only****. The Greyhound-L list server is made up of a large group of Greyhound owners some with limited experience, and some with EXTENSIVE experience - who meet on a computer forum to discuss Greyhounds and Greyhound related topics. I try to collect interesting data on various topics, and reflect a group consensus or varied cross sections of thought on those topics.

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Thank you - Lynda Adame, Cody and Tara (and Tice who is with us in spirit)
greyhoundadmin@abap.org

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GREYHOUND MEDICAL INFORMATION

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Last Update 2/5/99

BLOAT:

Symptoms: Repeated, unproductive vomiting, only a little foam. Distended stomach, restless pacing. Believe me once you've seen it you will know it with out a doubt the next time.

Bloat is a very serious affliction and can kill a dog quickly. Please refer to the Greyhound breed FAQ for more info on bloat. You can view this FAQ file at:

<http://www.k9web.com/dog-faqs/>

If you are a member of the Greyhound-L, you can request this FAQ from:

listserv@apple.ease.lsoft.com

In the text say:

Get GH.FAQ

HYGROMA:

This is common in large dogs especially over bony prominences like elbows. It is usually seen in dogs housed on hard flooring. A hygroma is a fluid-filled bursa which forms to protect the skin from pressure necrosis from the bone underneath. These can get inflamed or even ulcerate.

BALD THIGHS:

Many Greyhounds experience bald-thigh syndrome while at the track. This hair loss can be caused by thyroid insufficiency, stress, micro nutrient deficiency, laying on harsh surfaces, flea

allergy, or genetics. Most cases clear themselves up within 6 to 8 months of retirement. Dynamite Showdown, Clovite, and vitamin supplements are all recommended as a way to start hair growth if the thyroid level tests normal in a bald thigh Greyhound.

DIARRHEA:

(Bruce Skinner)

Many greyhounds experience anxiety induced colitis, or diarrhea when they are first brought home. Many times their stomachs just need time to adjust to the new type of dog food that they will be eating. If the diarrhea cannot be controlled using the following 'intestine resetting' instructions, please do not hesitate to take your dog to the Vet for a thorough examination. The following was passed on from a Vet:

- 1) ONLY clear fluids for 24 hours. This includes: water, broth, Jell-O (yum) and Gatorade.
- 2) Supplement the clear fluids with several tablespoons of NONFAT plain yogurt. The active cultures help re-populate the intestinal flora.
- 3) Imodium tablets to stem the flow. 1/2 tablet twice a day...you can also use Keopectate.
- 4) After 24 hours feed plain noodles. Rice is NOT recommended as it can sometimes be too irritating to the colon. If the diarrhea returns go back to the fluids.
- 5) If the noodles do stay in, the next day mix 1/2 noodles and 1/2 regular dry food.
- 6) Over the next couple of days increase the amount of dry food until your greyhound is back to the regular routine.

HOT SPOTS:

First check with your Vet to see if there is a medical reason for the hot spot, such as a staph infection. If not, then your dog may be chewing from boredom or anxiety. The pain of their chewing or licking releases endorphins and other comforting neurochemicals into their blood stream, and this calms the dog. Spraying the hot spot with a numbing agent like Lidocaine should break the cycle. Ora-jel spread around the hotspot is another way to break the cycle.

TAIL BREAKS:

(Stacy Pober)

Greyhounds are known for exuberant tail wagging which can cause breaks. Here is my advice from years of Greyhound tail breaks. Normally I don't take them to the Vets as I have found most of them over-treat a broken tail and make things much worse. Assuming the tail is still in basically a straight line, and the broken end is not at an odd angle to the rest of the tail...AND assuming that there wasn't a lot of crushing pressure on the tail that has seriously affected the blood supply, then...

- Take either a pencil or a chopstick and some appropriate bandaging tape.
- Lay the chopstick/pencil so that it extends about 3 inches past the break in both directions.
- Tape the tail to the chopstick.
- If the dog is a chewer or licker, spray the bandage with antichewing spray. I personally find the ones designed for horses, to make them stop cribbing are more effective than the ones designed for dogs.

That's it. No big splint...no cast. IF you let your Vet put a big heavy splint or a cast on the tail, I can almost guarantee you will lose the end of the tail. The bigger the splint/cast, the more

adversely it affects the blood supply, and the more it will make the dog feel that something weird is on its tail that it needs to get off.

WORMS:

Here is a sample of some of the varied information collected regarding wormers and Greyhounds. Always check with your Vet before self medicating ANY animal.

- Wormers that work on hooks and roundworms and are safe for Greyhounds are those with pyrantel pamoate as the active ingredient. Brands that contain this include: Nemex, Nemex 2, Evict, and the prescription wormer StrongidT. The big difference between Strongid and the others is that you have to give a LOT more of the over_the_counter brands to worm an adult dog. The Strongid-T has a greater amount of active ingredient per ml.
- Some people who know that their dogs are exposed to hook frequently (because, for example, they've picked it up in the park before) worm regularly with a gentle product, such as one of the pyrantelbased wormers, without first testing the dogs.
- Another safe (though terrifically expensive) wormer is Panacur. It's one of the few wormers that also works on whipworms. For tapeworm, I recommend the *oral* form of Droncit. (The injectable works, but the dogs find the injections VERY painful, more so than a normal inoculation.)
- Interceptor actually kills the hookworm, roundworm, and whipworm adults. Since the Interceptor is given only once monthly, it does not prevent a dog from becoming reinfected in between doses. Any new worm infestations are again eliminated once the tablet is given the following month. Thus the interceptor controls the worm infestation. Interceptor is often given to dogs once a month to prevent heartworm infections.

FLEAS:

(Lynda Adame)

I moved into a home with a very bad flea infestation. I read Cynthia Brannigans book "Adopting the Racing Greyhound" but was still confused as to what chemicals were safe to use. I put out a request to the members of Greyhound-L to mail me their own personal flea fighting techniques. Who better to ask than the people with Greyhounds living in their homes. I was delighted with all of the good information I got.

First and foremost is a great resource: Cindy Tittle Moores Flea and Tick FAQ. There is good info on flea life cycles in this FAQ, as well as some information on the different types of chemicals available and their strengths and weaknesses. There are a number of ways you can access this resource:

-Anonymous FTP to rtfm.mit.edu

Get the file fleas-ticks in the /pub/ usenet/news.answers/pets directory.

-Send email to mail-server@rtfm.mit.edu

Use no subject line, and in the body of the message

say: `send usenet/news.answers/pets/fleas-ticks`

- Mosaic or Netscape browsers can access it at <http://www.k9web.com/dog-faqs/>
- People with access to the news groups can find it in rec.pets.dogs.info
- Vacuum your home as often as possible. Include all furniture, bedding (both human and animal), drapery, carpeting. Burn the bag or submerge it in soapy water to destroy the fleas trapped inside. Some people claim success in placing cut-up flea collars inside their vacuum bags, others use mothballs or flea powder.
- Shampoo the dog often, always keeping in mind the fact that fleas love dry skin. Pert Plus was recommended as a good flea killing shampoo to use. Avon Skin-So-Soft was another recommended shampoo.
- Diatomaceous Earth was a recommended product, although there were equal groups for and against its use. D-earth is essentially crushed fossilized Diatoms, that are ground into a fine white powder. When spread around your yard or home, they desiccate or rupture the fleas hard outer shell and the flea dies. I was warned by many people to be very careful with this product. Make sure you buy it at a gardening store and that it is of food grade, and not the kind used in pools. The claim is that the crushed Diatoms are akin to tiny shards of glass and can cause problems if inhaled, or if they get into the mucous membrane or eyes of human or animal.
- Flea traps. These are essentially glue boards with a Night light built in. The light attracts fleas who stick. I used this and recommend that people give it a try.
- Flea comb. Use every night, and drown the fleas in a Solution of water & dish soap, or a light mixture of water & ammonia.
- Program. Most of us already know about this pill that you can get under a Vets prescription. It renders fleas, that bite the dog, sterile. No owners reported any problems with Greyhounds on the Program. For this to work, all animals in the home must be on Program.
- Advantage. This fluid, applied once a month kills fleas. Period. It is not a known carcinogenic and is used extensively on pet Greyhounds.
- Frontline. Kills both fleas AND ticks for up to three months, this fluid is used by many sighthound owners. It contains known carcinogenics.

Collars recommended:

- Ovitrol flea egg collar (recommended by NGAP)
- Preventic collar (There was a case were one pup was poisoned by eating his Preventic collar. The antidote used to save this dog was Yobine).

Sprays recommended:

- Ultraban - Fenoxycarb and an IGR (Inter Growth Regulator)
- Adams Flea and Tick Mist (what the track kennels use) -
- Torus - an IGR that does not break down in sunlight
- Ovitrol Spray
- Permethrin Spray or 5% Sevin dust for the yard
- Zodiac Pyrethrin Spray
- BioHalt Spray
- beneficial nematodes which eat flea larvae.

Other things I learned.

Pyrethrins tend to break down in direct sun light. When you do an initial spray indoors as well as outdoors, it is recommended to wait two to four weeks and spray again. Unless you use Advantage or Frontline, flea killing is a multi-step process, and you need to treat the dog, the home, and the backyard. The flea larvae live off the waste of the adults, so vacuuming often, and flea combing the blood/ waste off of the dog is good to do. Flea eggs can remain dormant a LONG time, and are resistant to cold weather. Heat can kill them, so throw all bedding into the dryer (on hot) at least once a week. Two fleas can produce 2000 eggs. Call your rescue group when in doubt

TICK REMOVAL:

(Lynda Adame)

Smother the tick in Vaseline, and as it suffocates it will pull out of the dogs skin.

Heat a paperclip or tweezers and hold the heated end against the ticks body, which will cause the tick to pull out.

Most people prefer these methods to squeezing and pulling the tick off of the dog, as the squeezing of the tick can cause it to leak more of the lyme bacteria or any other bacteria into the dog. After the tick has pulled out of the dogs skin, flush the area with water, then sterilize the area with alcohol or Betadine, and apply a topical antibacterial like Bacitracin/Polysporin. At the first sign of infection (reddening or oozing) contact your Vet.

"Tick Nipper " is available for purchase.

The Tick Nipper is a plastic plier type of device that will not cut or squeeze the tick. There is a 20x lens mounted on the handle also. They can be ordered for \$5.99 each, plus \$2.00 S&H for each order from, "Rehabilitation Programs Inc., P.O. Box 2468, Poughkeepsie , NY, 12603.

Beside s getting a great tool, you will be helping out a nonprofit organization for the disabled.

ALABAMA ROT:

Alabama Rot has long been a "mystery" disease among racing greyhounds. It was originally thought to be contagious. Racing greyhounds with the disease were found with open, weeping sores. In some dogs the sores healed on their own; in others , there was liver involvement and the dogs died in a matter of days.

Researchers at Kansas State University have done a study to try and determine the cause of Alabama Rot. After eliminating several possibilities, they took healthy dogs and fed them 4D Meat in an attempt to duplicate the symptoms of Alabama Rot. The study concluded that the Bacteria E. coli, which is found in 4D Meat is the cause of Alabama Rot. 4D (meaning Dead,

Dying, Diseased or Disabled) meat can come from cattle , sheep, poultry, goats, horses , roadkill or even bodies of cats and dogs euthanized at animal shelters. 4D meat is apparently widely fed to racing greyhounds because it is high in protein and it is cheap (approx. 40 cents per pound) . Contact Lynda Adame at greyhoundadmin@abap.org for more info.

JOINT & BONE INFORMATION:

(Paul Byther)

ORTHOPEDIC GREYHOUND VETS: For a questions regarding orthopedic problems with your Greyhound, you might have your vet contact Dr. Gerry Gregory at the Gregory Veterinary Clinic in Tampa, Fl. or Dr. James Dee at the Dee Clinic, Hollywood Animal Hospital, Hollywood Fl. Both these vets have extensive experience with greyhounds. Dee is the best greyhound "orthopedic man" on the planet, he knows them in general health cases as well. Dr. Jim Radcliffe of Town and Country Animal Hospital, Wheeling, WV is another highly recommended orthopedic Vet. Tips to get out of state phone numbers :

If you know the area code, but want the phone#, dial 1 area code 555 1212. If you just know the name, dial 1 800 for info.

HIP DYSPLASIA:

(Kathy Miritello)

There are very few Greyhounds that have hip dysplasia, but the number is not zero. It is just very rare, much rarer than in most other medium sized or large breeds. A list member found an article in a magazine called Outdoor Life (Jan 1996), which discussed treating hip dysplasia with megadoses of Vitamin C.

- Many reports of improvements with Vitamin C regimens were noted, ranging from one Vet who used it in bitches and pups to prevent hip dysplasia, to others who reported positive results in the treatment of arthritic dogs and horses.

- A Vet in California (Dr. Bob Cathcart) recommends giving Vitamin C for a variety of joint ailments and illnesses. He administers the vitamin in large doses, determined by the dog's own tolerance levels. The "bowel tolerance" marker is established by increasing the Vitamin C until the dog's stools loosen, then reducing the dose by a half a gram at a time until the stools become firm again. "EsterC " is supposed to be a better form of the vitamin and can be found in health food stores. The vitamin is molecularly "locked" to calcium and therefore less likely to cause the stomach upset that ascorbic acid (the common form of C) can produce. EsterC is also supposed to be more easily metabolized so that more of it reaches the cells and less is passed through the urine. Theories as to why it works include the following: a) it lubricates the joint so the dog feels less pain; b) the metabolites of Vitamin C consist of substances essential to the processes involved in rebuilding the diseased joint tissue ; c) it maintains the integrity of collagen and other connective tissue s; d) it mobilizes white cells in the immune system while deactivating free radicals that may damage cell membranes.

- There is some controversy as to whether the Vitamin C regimen actually helps. A 1994 double blind crossover study indicated that the best results were shown when dogs were given

2000 mg of EsterC daily. Other studies are largely anecdotal, and even this study has some faults . IMO.

- What is interesting is that xray images of the affected joints following Vitamin C therapy still indicate signs of joint deformity. It is theorized that the improvement doesn't come from any changes in the hard, bony portion of the joint, but from changes in the soft tissues (cartilage and synovial membranes, for instance) that also help to form the joint. I thought t this information might be useful to owners of Greyhounds with Arthritis or other joint injuries. Yucca tablets, Alfalfa tablets and a product Called GlycoF lex600 are all recommended for joint problems as well.

BLOWN TOES:

(Paul Byther)

- I spoke to a friend of mine who is a vet specializing in emergency/ critical care, with a background in surgery and canine sports medicine. Fusing a joint is a surgical process. It would seem impossible for a substance to selectively calcify and seal all of the cartilaginous material within a specific joint without affecting the remainder of the body. Her guess, and mine, is that the trainer in AZ was referring to sclerosing agents used to speed the development of scar tissue . If the issue was a torn ligament, sclerosing agents could be used to harden the ligament. That sounds like an odd way to go about it to me, as that would mean the toe would have little flexibility and a tendency to break.

I'd investigate just removing the entire toe. Losing an inner front can be a problem to run on, but the surgery required to rebuild the toe might be more trouble than it's worth.

- For those having questions regarding sprung or dislocated toes, I can tell you it is more common in Greyhounds that run on grass surfaces than sand...but we do see it in track dogs too. What you are dealing with is collateral ligament damage <these ligaments hold the bones of the toe in place>.

They can become chronic, each healing adding more fibrous material, compounding to a very enlarged joint after awhile.

First of all... no cortisone! Cortisone will give the appearance of healing, but actually it retards the kind of healing process necessary to avoid a recurrence.. . I prefer ethanolamine injected into the joint in the zone of the ligaments cotton between the toes, then wrapped. The ethanolamine causes the ligaments to "heal" faster , and tougher...the wrapping is to keep the area from flexing. The injections are done every three to five days, the bandaging should be on for about 21 days <you do have to regularly redo the bandage>. It's a six week period before you can run the greyhound hard on the toe. If you are more interested in this method , I can write the whole procedure out for your vet... amounts, needle sizes, etc. I've had a 75% success rate. I prefer it to surgery, at least it's an easier first try. Amputation being the usual alternative. (To get in contact with Paul Byther , the Greyhound trainer that gave the above advice , contact greyhoundadmin@abap.org) Paul later wrote: From what I understand, 50% or less success in repairing the joint with ethanolamine <most commonly used sclerosing agent>, I have had better averages...more like 75%. Amputation is the other route most trainers opt for. We are speaking about the middle toes, which most often are the affected ones. The bone is removed,

the pad and web left. Additionally you might want to consult a very thorough book called : called "Care of the Racing Greyhound" by Blythe , Gannon , and Craig, available through the National Greyhound Association Abilene , Kansas . To get back to ethanolamine , inject 0.5ml added to 0.5ml of local anesthetic in the area of the collateral ligament of the affected toe with a 25 gauge needle. Afterwards you bandage the toes in a natural straight line, cotton wool padding between the toes. The whole foot is then covered with cotton wool, then cotton bandage. It takes three injection procedures three to five days apart, same injection method and wrapping. Trimming back the nail and keeping the hound from flexing the joints is very important for the ethanolamine to work. The foot should be kept immobilized with the bandage/wrap for 21 days.. Putting the dog on a supplementary vitamin A and C routine is also helpful with strengthening the joint. Once the bandage is removed, massaging the joint with liniment, trimming back the nail, and elastoplasting the affected toe to the good toe next to it for two weeks helps the unbandaged foot to work to work in slowly .

Six weeks total recovery is a good shot to give the joint the best recovery chance before the hound really runs hard. As a sidebar, some success has been had by transplanting the flexor tendon from a dew claw <removing the whole dew claw is required> this however is a pretty expensive way to go for a pet owner that won't recover the outlay from racingI prefer to first try ethanolamine , then amputation if it's not successful.

For ethanolamine to work, the bandaging is import ant, and not free running the dog is essential. Immobilization is the key. I hope this info is helpful. You realize of course I am a licensed greyhound trainer, NOT a veterinarian .

You might contact either of the Doctors Dee in Hollywood, Florida. They are the premiere orthopedic greyhound specialists in this country, in my opinion, for more perhaps qualified suggestions on other treatments by transplant.

Article on this topic which may be of interest: Fractures and dislocations associated with the racing greyhound. (1985) . Small Animal Orthopedics II, pp. 467477 . JF Dee, LG Dee.

ANESTHESIA:

The following information can be passed on to your Vet: Greyhounds do not tolerate anesthetics or sedation well. They have relatively little body fat and are thus unable to absorb lipid soluble thiobarbiturates therefore remain systematically active for a greater period of time. Consequently , Greyhounds are especially susceptible to hypothermia and hypotension while anaesthetized with thiobarbituates.

The following suggestions are taken from "Greyhound Pets Quarterly":

- *Greyhounds must have fluids during ALL surgical procedures.
- *NEVER use thiobarbiturates, including Biotol, Surital, or Pentothol.
- *An EXCELLENT choice for anesthetic for use on Greyhounds is a synthetic narcotic human drug known generically as Oxymorphone. It is supplied in 1.5mg/ ml in 10cc vials and is marketed by the Endo Drug Company under the name of Numorphan. It is almost fully

reversible through the use of narcotic reversing agents such as Nalline or Levallophan. *A gas anaesthetic, such as Methophane is not necessary if the patient has achieved a level of deep depression.

The following procedures are recommended for the surgical anesthetizing of Greyhounds: ALL Greyhounds receiving atropine sulfate prior to anesthesia and intravenous fluids during general anesthesia. 0.05mg /lb. of Oximorphone is combined in a single syringe with 0.1ml/ 10 lbs. of Acepromazine (3.0 mg Oximorphone and .6cc Acepromazine for a 60lb dog). This combination is injected intravenously over a 1520 second period ; faster injection can result in a brief excitement phase. Apprehensive dogs can receive as much as 0.075m g/lb. of Oxymorphone. Within 5 minutes the dog can be intubated with very little manual restraint. Many animals will respond excessively to noise at this stage. Depending upon the procedure, as well as the level of depression the patient has achieved, one may or may not incorporate the use of Metophan, a gas anaesthetic. Upon completion of the surgery, Nalline is injected intravenously at a dosage equivalent to the induction dosage of the Oxymorphone.

Further information on the subject of the use of anesthesia in Greyhounds can be obtained by contacting the Small Animal Teaching Hospital of Colorado State University at Fort Collins, Colorado (303/4 849154). Because Greyhounds are slow in recovering from the effects of sedation and anesthesia, it is recommended that you leave your pet under observation by your vet the night following any surgery which is performed under general anesthesia.

Another method of anesthetizing a Greyhound is found in Dr. Nina Beyer, DVMs article written for the National Greyhound Adoption Program in 1993. She recommends using a 1:2 ketamine:diazepam mixture at 1 mL/610 lbs. given slowly to effect . The effect I look for is different from what we see when inducing a non-sighthound with thiamylal or other barbiturates ; the dogs do not reach total muscular relaxation and the eyes remain central with a strong blink reflex . Intubation is moderately easy but the jaw is not totally relaxed so we use a mouth gag. In other words, the dog looks awake and has muscle tone but is not struggling. I then maintain the dog on 5% isoflourine until the eyes roll down and the heart rate just begins to decrease; usually 1 1/2 2 1/2 isoflourine is enough to finish from that point. Since I began using this protocol, no dogs have vomited and they have recovered as smoothly and as quickly as the average non sighthound spay given thiamylal and isoflorine. Greyhounds are listed as one of the breeds known to develop malignant hypothermia . Dantrolene is the treatment of choice.

BLOOD LEVEL AVERAGES:

Here is some interesting info pulled from "Platelete Concentration and Hemoglobin Function in Greyhounds", Patrick Sullivan, DVM.

This research paper dealt with a comparison of blood level average s between greyhounds and non greyhounds. Here are the averages for the 36 greyhounds that they pulled blood on. All of these greyhounds were free from any tick diseases. These can be compared to the results that are found in a CBC (Complete Blood Count) run by your Vet).

Value Average	
HGB	19.86 +/-1.56
Hemoglobin	
PCV	53.6 +/- 3.8
Packed Cell Volume	
RBC	6.66 +/-0.4
Red Blood Cells	
Protein Totals	6.2 +/-0.4
MCV	81.2 +/-8.2
Mean Corpuscular Volume	
MCH	30.03 +/-3.09
Mean Cellular Hemoglobin	
MCHC	37.10 +/-1.51
Mean Cellular Hemoglobin Concentration	
WBC	7,886 +/-2,285
White Blood Cells	
Segmented Neutrophils	5,867 +/-2,285
Band Neutrophils	22 +/-51
Lymphocytes	1,735 +/-836
Monocytes	194 +/-147
Eosinophils	74 +/-93
Basophils	5 +/-19
Platelet Count	154 +/-43
MPV	8.81 +/-1.46
Mean Platelet Volume	

TICK BORNE DISEASES:

(Sue Tomasello)

DATE: 3/12 /95

This post is for all of you out there that are placing former racing Greyhounds into homes or to anyone that has adopted one of these wonderful animals:

I have been involved in Greyhound Rescue for almost 4 years. Two years ago one of my 3 GH's became ill with symptoms that were vague and could have been any number of things. Jenny, as it turned out had Ehrlichia, a tick disease . She died because we discovered too late what she had. This disease , if caught early is very treatable with antibiotics. But, if not treated, symptoms can go away and the disease goes 'dormant' for years sometimes. But it does not go away, it comes back with a vengeance and often after damage to the immune system has occurred. Our group has been seeing an INCREASING number of Greyhounds coming from the racetrack that are testing positive for both Ehrlichia and another tick disease called Babesiosis. Just this week, a friend had her dog tested after another Vet diagnosed 'an auto immune disease ' and prescribed steroids. The test came back positive for Ehrlichia. I don't want to start a panic, but this is VERY SERIOUS . Our rescue group now gives antibiotics routinely to all the GHs we get, as they come from the TICK INFECTED kennels of Arizona and Mexico. If I had a former racing Greyhound and did not know if it had been prophylactically treated for these two tick disease s I would: 1) Consider spending the money and having it tested now, 2) Give the GH a course of the prescribed antibiotic, or 3) Be very

aware of any suspicious symptoms and think of these 2 diseases if any occur (trouble is, symptoms are very varied) -

From "Care of the Racing Greyhound" by Blythe, Gannon, & Craig (two of them vets, two of them professors of Vet. Med). ISBN 0 96414560-X (hard) and 09641456-1-8 (soft). I've included description & clinical signs for all three. I've not included the paragraphs on treatment.

BABESIOSIS: Babesiosis is a tickborne protozoal disease of the blood of Greyhounds and other canines that results in anemia. The parasite, *Babesia canis*, has worldwide distribution, but is most prevalent in the tropical and subtropical regions such as northeastern Australia and southeastern United States. Literature reports for percentages of infected Greyhounds range from 55% (southeastern United States) to 46% (Florida) (Taboada et al., 1992). In the latter study, Greyhounds had a much higher infection rate (46%) than pet dogs (0%) from the same area. All Greyhounds that were actively racing tested negative, while the highest number of positive tests coupled with clinical signs of disease was in the pups.

Clinical Signs: Babesiosis can result in anemia with pale gums, fever, yellowish color to the mucous membranes of the mouth, eye and vagina (in females), weakness, depression and a reluctance to eat. Many infections with *Babesia* in Greyhounds are not obvious to the owner. Heavy tick and *Babesia* infestation can cause shock and death. Stress may cause an apparently normal but chronically infected Greyhound to develop clinical signs. A blood test will detect the degree of anemia as well as the presence of the parasite itself in the red blood cells (Figure 510 on Plate VII). In some cases, measurement of antibodies to the parasite in the blood sample is needed to make a confirmatory diagnosis.

HEPATOZOONOSIS: Hepatozoonosis is another tickborne disease in dogs in southeast Asia, Africa, Middle East, Europe, Brazil, and the Gulf Coast region of Texas in the United States. The parasite is *Hepatozoon canis* which apparently causes clinical signs of disease only dogs that are either very young (less than 4 months of age), infected with another parasite such as *Babesia canis*, or immunosuppressed. **Clinical Signs:** Intermittent or continuous fever and loss of weight in spite of a good appetite are the most common signs. Some dogs may show pain to muscle palpation, reluctance to move, diarrhea, and anemia. The white blood cell count is elevated with counts ranging from 20,000 to 200,000. Diagnosis is made upon visualizing the parasite in the white blood cells (neutrophils or monocytes) or by measurement of serum antibodies.

EHRlichiosis: *Ehrlichia canis* or *Ehrlichia equi* are rickettsial organisms (similar to but not exactly like a bacteria type organism) that are transmitted to Greyhounds from a tick bite. The problem occurs in temperate, tropical and subtropical countries where the brown tick (*Rhipicephalus sanguineus*) occurs except for Australia.

Clinical Signs: Fever, reluctance to eat, discharges from the eyes and nose, a tendency to bruise or bleed easily, enlargement of the lymph nodes, anemia, and difficulty in breathing are the clinical signs of recent infection. Most Greyhounds will recover after 1 to 2 weeks, even without treatment, but some will develop a chronic form of the disease 1 to 6 months later. The clinical signs of the chronic form include chronic weight loss, poor appetite, pale mucous

membranes (gums) due to anemia , weakness and depression. Increased bruises over the body occur due to internal hemorrhage because of a decreased number of platelets. Some Greyhounds may be infected, but not show any clinical signs until stressed.

Diagnosis is by a blood test for the presence of the abnormalities in the RBCs, WBCs and platelets, the visualization of the parasite itself in the WBCs, or the presence of antibodies in the serum of infected dogs. Rocky Mountain spotted fever, another canine tickborne disease in the western United States , may have similar clinical signs, but will also be eliminated with the tetracycline therapy suggested below. **Please check out these sites on Babesiosis and Ehrlichiosis :

<http://www.adopt-a-greyhound.org/advice/health.html>

<http://www.abap.org/webx/> (Tick-L archives)

There is also a tick disease mailing list that you may join to learn more about these diseases and how they affect Greyhounds. Contact Lynda Adame at: greyhoundadmin@abap.org

CANCER RESEARCH:

Last year The Greyhound Project set up a designated fund with the Morris Animal Foundation and agreed to match individual contributions up to a total of \$2500. We did a lot of research and decided that the kind of studies that Morris funded were the kind that everyone could support. Specifically, the subjects in their studies have naturally occurring conditions. They do not try to cause the illness to then try to find a way to treat it. And there have been useful contributions to the veterinary arsenal of treatments that have come out of the studies funded by the Foundation. The research on diet and cancer was done under a project funded by them, and they are supporting studies on half body radiation, pain management and other areas that have the potential to help canine cancer patients. We expected that the fund could raise \$5000, more or less, between individual contributions and the matching money we would contribute.

DRUM ROLL, Please!

Well, we got the final accounting from the Foundation for the last year's contributions and we have managed to raise a total (including the Project's matching money) of more than \$7000. The whole thing sort of blew the socks off the folks at the Foundation. They are much more used to getting contributions of that size from wealthy individuals and large established foundations. The fact that people whose only connection was their individual interest in adopted greyhounds could produce such an impressive result was clearly a new experience for them.

It was such a terrific success that the Project decided at the last meeting to continue the fund for 1999 and we have upped the amount we will match to a total of \$3000.

For folks who have lost a greyhound to cancer or know of someone who has, this is a way to honor the memory of the dogs we have lost and contribute to eventually finding effective treatments and hopefully a cure.

Here's all you have to do - Send your check to Morris Animal Foundation and specify that your donation is to go to canine cancer, The Greyhound Project account. They will notify us and we'll then match your donation. The address is: Morris Animal Foundation Canine Cancer - The Greyhound Project Account 45 Inverness Drive East Englewood CO 80112.

FIRST AID KIT:

Here is a list of items offered up by the Greyhound-L members for use in a Greyhound first aid kit.

===== First Aid Kit Supply List =====

- ACE bandage
- activated charcoal for accidental poisonings alcohol for sterilizing object only
- Alleve (naproxyn sodium) 220 mg (the OTC dose) is a little strong aspirin safely used in small doses
- Ascriptin(R) preferred by some Vets due to Maalox coating bandanas
- Benadryl - for insect bites/stings
- Betadine - see description below
- Bickmores Gall Salve - horse product that is great for burned pads
- Bristle brush (medium hardness) for cleaning nail beds in Sandy areas
- bulb syringe - for washing out eyes
- cauterizing wand (surgical type) to stop bleeding in nails and nicks cotton tip applicators
- gauze pads (3"x3") gauze roll (3")
- Furacin see description below hemostat (curved) hemostat (straight)
- Hibicleanse - soap and wound cleaning agent hydrogen peroxide 1% solution only
- instant ice pack
- iodine tincture 7% spray
- KY jelly
- Muzzle
- Nail clipper
- Oral dose syringe
- Pad protection ointment
- povidone/iodine ointment saline solution
- Splint material
- Sterile water
- Styptic powder
- Surgical scissors
- Syrup of ipecac to induce vomiting
- Terramycin ophthalmic ointment thermometer
- Vetwrap (2")

=====

- Aspirin WARNING:

When giving a dog aspirin always check the dogs stool. Look for black stools which can indicate occult bleeding, and then discontinue aspirin immediately (use a buffered aspirin

instead). The coated aspirins are not readily digestible by canines, and are often passed through with little but the coating having been digested.

- WHAT TO PUT IT ALL IN? The bag I use is a diaper bag. The compartments are wide and shallow; there are small zippered compartments on the side for scissors, bandages, Qtips, etc; and bottle compartments on either end for my most commonly needed bottles.

-Also, keep in mind to NOT wash out a wound that needs stitches with anything more harsh than distilled water. If you can't sew or staple, let a vet do the job. You'll Make the job easier, and the healing faster for your vet And the hound if you don't burn the tissue that will be stitched over with alcohol or peroxide.

-Hydrogen Peroxide is considered caustic, and will inhibit healing.

-Furicin or Nitrofurazone (same stuff just common vs. real name!). This comes as a powder that can be added to petroleum jelly to make a paste. It will turn a very, very angry orange to reddish color when exposed to sunlight. My vet assured me it doesn't hurt the dog at all it just makes the wound look real nasty, even dangerous.

-Betadine is brown in color, and is easiest to use in liquid form. I use Betadine to wash wounds, but don't leave it on, as it is related to iodine and can cause irritation or a rash. It also makes a great disinfectant soak. If one of my guys gets a line cut on their foot I usually wash it in straight betadine then prepare a soak of 2 Tablespoons to a cup of water to soak the foot. I use it for soaking nail bed infections also. I only use the Furicin ointment for injuries I want to keep moist (some boo boos are made worse if they are kept moist), I use the powder for all other boo boos.

- HOMEOPATHIC FIRST AID KIT: Homeopathy works on the principle of stimulating the bodies own powers of healing. You give a very tiny amount of a substance, which mimics the complaint if taken in larger doses. The theory is that this stimulates the bodies own natural response to heal the complaint. The remedies are very gentle. We don't use them in place of appropriate trips to the vet. Consult a book titled "Dogs: Homeopathic Remedies" by George Macleod. It's published by C.W. Daniel Co. Ltd., 1 Church Path, Saffron Walden, Essex CB10 1JP, England. Some remedies used by Greyhound-L members include:

- Arnica montana: for sore and bruised muscles, shock and to help control bleeding.
- Rhus tox: relieves stiffness of muscles and joints and chilling or over heating.
- CalcPhos: strengthen musculoskeletal system.
- Causticum: Antidote for lead poisoning and for muscle weakness.
- Hypericum: for lacerations and open wounds.

- All homeopathic remedies are extremely dilute amounts of the natural substance. They can not cause the affects of the whole plant. They are considered so safe that there is no overdose amount of any homeopathic remedy. Interestingly a large scale study of homeopathy was

recently undertaken in England. Lab tests of homeopathic tinctures could not detect the remedy in the dilution chemically the remedies were just alcohol. But in a double blind clinical test of over 1000 patients, the same remedies were 30% more effective than placebos. Mind over matter? Any way we use them and they seem to work on us and our guys.

CANINE-L FIRST AID KIT LIST: There is an excellent first aid list on a ftp site. It was put together by Nancy Rogers from canine-l and is on an FTP site provided by a Marc Gemis. It is a combination of two minimum first aids from two different books. The ftp address is [bietel.uia.ac.be](ftp://bietel.uia.ac.be) in the directory/pub/Dogs (use the capital D).

VITAMIN E: When using vitamin E purchased from a drug store BE SURE to buy all natural Vitamin E (NOT synthetic). If you have a question about which one is all natural, ask your pharmacist. Wheat germ is the richest natural source of Vitamin E. Vitamin E can also be found in food such as carrots, egg yolks, cereal, nuts, and vegetable oils. Vitamin E can be destroyed by rancid fats and inorganic iron. Liquid tonics of vitamins and minerals mixed together could be a cause for the breakdown of Vitamin E. Vitamin E is essential for muscular health. It also helps utilize fat and prevents Vitamin A, Linoleic acid, and other nutrients from destruction by oxygen in the body. Vitamin E also performs several other important functions within the body:

- It permits the diameter of the blood vessels to increase, thereby improving the blood flow to the tissues. It improves the blood supply to injured areas and stimulates healing.

- Dissolves and or prevents the formation of blood clots but does not interfere with the body's normal blood clotting mechanism.

- It prevents excessive scar tissue formation. It promotes urinary excretion. It increases the power and efficiency of muscle tissue and has a very beneficial effect on a tired heart muscle.

Dosage : daily dose of 50 i.u. be given. This can and will depend on your dog. Always check with your Vet before starting something new. The dosage may need to be higher if you are located in a region with a high exposure to sunlight. When the body is exposed to sunlight for a long period of time, the body produces Vitamin D...an excess of these D vitamins can cause the destruction of Vitamin E in the muscles and a shortening of the muscle fibers.

Overexposure to Ultraviolet rays WILL cause the complete destruction of muscle fiber. If your dog is an athlete, be sure to start the administration of Vitamin E (if elected) approx. 1-2 months prior to competition (lure coursing, agility, etc.). The body needs time to adjust. At first the dog may become lethargic, but energy and vitality will soon follow. This is nature's way of adapting to the beneficial change in metabolism. We have had great success in the use of Vitamin E both in our lure coursers as well as in the aid of injured dogs (in the process of healing).

HYPOTHYROIDISM:

Hypothyroidism is yet another controversial subject debated upon by greyhound-L members. There are two strains of thought on greyhound-L regarding hypothyroidism:

1) Low/normal thyroid test results from a Vet do not unequivocally mean that your Greyhound is hypothyroid. Your hound should actually exhibit some of the symptoms of Hypothyroidism before he is medicated. Once medicated, your hound's natural ability to produce thyroid is inhibited. Most Greyhounds are quite normal and still test low/normal for thyroid.

2) Greyhounds have a higher than average incidence of hypothyroidism, which is easily treatable by constant, albeit cheap, medication. Low/normal test results mean your Greyhound is hyperthyroid. The following are some ideas and comments regarding hypothyroidism:

- Wheezing (reverse sneezing, gagging, etc.) CAN be a symptom of hyperthyroidism, as well as hair loss (on butt & neck usually), darkening or thickening of the skin, and lethargy. Untreated hyperthyroidism can lead to serious, long term problems.

There is a higher than average incidence of hypothyroidism in ex-racers and it is a condition that is easily treated by a Veterinarian. A Greyhound that tests in the low/normal range for "generic dogs" is not normal for a Greyhound and should be started on a course of treatment right away.

SPECIFIC CLINICAL STUDIES:

One thing is physiological breed differences. There are definite physiological differences between breeds of dogs that are sometimes not recognized by the mainstream of veterinary thought. An example of this is the sensitivity of sighthounds and some other breeds to the traditional anesthetic regimens used for many years. Now it seems to be common knowledge in the veterinary community but I can remember back to a time (one that wasn't very long ago, BTW) where many veterinarians pooh poohed the notion that a particular breed would have a unusually high proportion of adverse reactions to the ultra-fast acting barbiturate commonly used as preanesthetic agents. Mind you, many sighthound breeders and fanciers were *acutely* aware of this danger because of the abundant anecdotal evidence of dogs dying or having serious adverse reactions to anesthesia for routine procedures. In fact, some sighthound breeders and owners would bring articles from sighthound magazines about this phenomenon to their vets to try to alert them about this. And sometimes it worked and sometimes the vets would dismiss the information contemptuously because it did not come from traditional veterinary science journals. Since that time, mainstream research has been done on this and there have been veterinary articles published on the unusual reactions of Greyhounds to barbiturates. And now you are unlikely to get into an argument with your vet if you bring the subject up.

In the last few years, I have heard a number of sighthound breeders (not just Greyhound breeders but those from other sighthound breeds as well) discuss the fact that they suspect that the "normal" range of values for thyroid function in other breeds may not be the same for sighthounds. In particular, there seem to be a lot of sighthounds who routinely test out as low normal (meaning their thyroid values are considered normal but are in the bottom third of the 'normal' range). These dogs tend to be asymptomatic when judged against most typical symptoms

s of classic hypothyroidism . Their coats are not dry, their energy levels are appropriate for their breed and age, and (ex-track Greyhounds aside) they don't have bald patches . Racing Greyhounds have certain feature s of their living conditions and diet that are not similar to most other sighthounds. They live in crate kennels (where they are crated for a much larger proportion of the day than would be the average pet or show dog who is crated) . They weight is kept on the low side. The females are given mibolerone (Cheque) or testosterone, and these are hormone s that affect both reproduction and other hormonal systems in the body. I also would consider a Greyhound racing kennel to be a more stressful environment than many others. Any one or a combination of these feature (and others that I haven't listed) could be factors in both the much discussed bald patches that are often seen on the upper back of their thighs and in a (possibly transient) low or low normal thyroid reading.

I also wonder what the California vet who is finding 50% of the dogs hypothyroid is using as her guideline. Is she using the same guidelines of a T4 reading of 1-4 that is seen as 'normal ' by the majority of vets, or is she counting low normal dogs as being in the group of hypothyroid dogs?

The fact that a dog coming off the track may have a low normal thyroid reading would not be that significant to me unless there were symptom s that needed to be treated . By that I mean symptom s aside from a bald butt.

I don't believe in treating a lab result, I believe in treating a whole animal.

As I and others have previously noted, there are many dogs with 'bald butts' and normal thyroid readings. There are also many low thyroid dogs in the world without bare butts. (The alopecia caused by severe hypothyroidism tends to be more extensive than that, so that there is hair loss in many areas.) There is an old scientific adage: "Correlation is not causation." so just seeing dogs with bare butts who are hypothyroid also does not prove that the hypothyroidism caused the alopecia.

They both may be caused by a single separate cause entirely, or they might even be unrelated. I did a search of Biological Abstracts, Medline , and Life Science s Collect ion on canine thyroid problems and breed differences. One study did find that racing Greyhounds had lower thyroid levels. I've gotten the full survey on another which mentioned breeds with higher frequency of hypothyroidism but did not list Greyhounds or any other sighthound breed among them. I'm including some of the citations in case anyone is interested.

SPECIFICS OF ENDOCRINAL PATHOLOGY IN RACING GREYHOUNDS

BLOOMBERG M-S UNIV. FLA., COLL. VET. MED., GAINESVILLE, FLA. 326100126,

USA. RECL MED VET EC ALFORT 167 (78). 1991. 787793. CODEN: RMVEA Full

Journal Title: Recueil de Medecine Veterinaire de l'Ecole d'Alfor t Language: FRENCH

Among the endocrinal particularities to be found in racing greyhounds can be counted: an increased frequency in hypothyroid problems; -the existence of a specific syndrome called insipid effort related diabetes; the use and/or abuse of anabolising steroids. The author reviews the clinical aspects concerning these three elements. Descriptors/Keywords: STEROID ABUSE HYPOTHYROID PROBLEM INSIPID EFFORT RELATED DIABETES

Hypothyroidism in dogs: 66 cases (1987-1992) Pancier a D L Dep. Med. Sci., Sch. Vet. Med., Univ. Wis., 2015 Linden Drive West, Madison , WI 53706, USA Journal of the American Veterinary Medical Association 204 (5). 1994. 761767. Full Journal Title: Journal of the American Veterinary Medical Association

ISSN: 00031488 Language: ENGLISH Print Number: Biological Abstracts Vol. 097 Iss. 009 Ref. 122309 Sixty six dogs with hypothyroidism were identified from dogs examined over a 5 year period. Hypothyroidism was diagnosed only if the dog had a low, resting serum thyroxine concentration and serum thyroxine concentration was not higher than the lower limits of the reference range 6 hours after IV administration of bovine thyrotropin. The prevalence of hypothyroidism was 0.2%. Neutering was determined to be the most significant gender associated risk factor for development of hypothyroidism . Neutered male and spayed female dogs had a higher relative risk of developing hypothyroidism than did sexually intact females . Sexually intact females had a lower relative risk. Breeds with a significantly increased risk, compared with other breeds , were the Doberman Pinscher and Golden Retriever. The most common clinical findings were obesity (41%), seborrhea (39%), alopecia (26%), weakness (21%), lethargy (20%), bradycardia (14%), and pyoderma (11%). Low voltage R waves were found on 58% of ECG. Clinicopathologic abnormalities included hypercholesterolemia (73%), nonregenerative anemia (32%), high serum alkaline phosphatase activity (30%), and high serum creatine kinase activity (18%). Serum total triiodothyronine concentrations were within reference ranges in 15% of the hypothyroid dogs. Response to treatment was good in most dogs, but those with severe concurrent disease or neurologic abnormalities were less likely to respond with complete resolution Of clinical signs.

GREAT DANE IRISH SETTER OLD ENGLISH SHEEP DOG THYROTROPIN HORMONE DRUG THYROXINE HYPOTHYROIDISM NONTHYROIDAL ENDOCRINE DISEASE BACTERIAL SKIN DISEASE FAMILIAL TENDENCY THE PHASE OF HAIR GROWTH IN HYPOTHYROIDISM IN THE DOG ARSLAN S H; MACKENZIE C P; BROWN R; BAXTER J T DEP. OF MED., SURG. AND OBSTETRICS, COLL. OF VET. MED., UNIV. OF MOSUL, MOSUL, IRAQ. VET RES COMMUN 6 (1). 1983. 5158.

CODEN: VRCOD Full Journal Title: Veterinary Research Communications Language: ENGLISH The stage of hair growth which predominated in dogs not affected with hypothyroidism appeared to be breed dependent. For example, in boxers , Labradors and collies, the resting stage (telogen) predominated , whereas in West Highland White terriers and cairn terriers the active stage (anagen) predominated . However, even in pet dogs kept mainly indoors, the proportion of hairs in anagen tended to increase during the winter months . In dogs affected with hypothyroidism, the proportion of hairs in anagen or telogen in members of a particular breed was the same as in the normal dogs of the breed. Breed apparently was more influential than hypothyroidism in determining the predominant phase of hair growth .

Descriptors/ Keywords: BOXER LABRADOR COLLIE WEST HIGHLAND WHITE TERRIER CAIRN TERRIER BREED DEPENDENCE EPIDEMIOLOGIC FEATURES OF CANINE HYPOTHYROIDISM MILNE K L; HAYES H M JR NATIONAL CANCER INSTITUTE, ENVIRONMENTAL EPIDEMIOLOGY BRANCH, 3C07 LANDOW BUILDING, BETHESDA, MARYLAND 20205 . CORNELL VET 71 (1). 1981. 314. CODEN : COVEA Full Journal Title : Cornell Veterinarian Language: ENGLISH The epidemiologic features of 3206 dogs diagnosed with hypothyroidism (including myxedema) from 1.1 million dogs seen at 15 veterinary teaching hospitals between March , 1964 and June, 1978 were studied. Nine

breeds at high risk for hypothyroidism were golden retrievers , Doberman pinschers, dachshunds, Shetland sheepdogs, Irish setters, Pomeranians, miniature schnauzers, cocker spaniels and Airedales. Two breeds with a significant risk were German shepherds and mixed breed (mongrel) dogs. Age risk was greatest among younger dogs of high risk breeds, further dogs had increasing relative risk through 9 yr of age. Spayed female dogs displayed a significantly higher risk when compared to intact females. Though not statistically significant, male castrated dogs had 30% more hypothyroidism compared to their intact counterparts . Among the case series were 91 endocrine and hormone related neoplasms and 198 other endocrine related disorders. Further studies linking canine hypothyroidism to other conditions, particularly cancer , could provide valuable insight into human disease experience.

Descriptors/ Keywords: GOLDEN RETRIEVER DOBERMAN PINSCHER DACHSHUND SHETLAND SHEEP DOG IRISH SETTER POMERANIAN MINIATURE SCHNAU ZER COCKER SPANIE L AIREDALE GERMAN SHEPHERD HUMAN NEOPLASM AGE MYX EDEMA CASTRATION HYPOTHYROIDISM IN DIFFERENT BREEDS BLAKE S JR; LAPINSKI A RANCHO MESA ANIM. HOSP., 8710 MIRAMAR RD., SAN DIEGO, CALIF. , USA. CANINE PRACT 7 (2). 1980. 48, 51. CODEN: CPCEA Full Journal Title:

Canine Practice Language: ENGLIS H The relationship between different breeds of dogs [Beagle, Sled Dog, Labrador, Retriever, Spaniel, Terrier, Collie , Mixed, Setter , Shepherd, Doberman, Poodle , Chihuahua, Dachshund and Schnauzer] and hypothyroidism is discussed. The result s of 2000 tests for hypothyroidism are evaluated and presented in tabular form with breed relationships. The materials and methods utilized in the testing involved are described. The rationales for differing values by breed are discussed and the use of the testing program in practice is evaluated. Descriptors/ Keywords: BEAGLE SLED DOG LABRADOR RETRIEVER SPANIEL TERRIER COLLIE MIXED SETTER SHEPHERD DOBERMAN POODL E CHIHUAHUA DACHSHUND SCHNAUZER BREED DIFFERENCES AND SIMILARITIES IN THYROID FUNCTION IN PUREBRED DOGS NUNEZE A; BECKER D V; FURTHE D; BELSHAW B E; SCOTT J P AMER J PHYSIOL 218 (5). 1970 13371341. CODEN : AJPHA

PESTICIDES:

Someone posted about lawn care and dogs. I do not use anything but lime and compost on what is left of our lawn because having a lovely lawn is not worth the risks caused by the chemicals. The risk is not only to our dogs, it is to ourselves and our children as well. Here are two citations from Medline on the subject: AUTHOR: Reynolds PM; Reif JS; Ramsdell HS; Tessari JD TITLE: Canine exposure to herbicide treated lawns and urinary excretion of 2, 4 dichlorophenoxyacetic acid.

JOURNAL: Cancer Epidemiology, Biomarkers, and Prevention 1994 April-May; Vol:3 (Part:3) Pg:233-7 A recent study by Hayesetal . (J. Natl. Cancer. Inst. , 83:1226-1231, 1991) found an increased risk of malignant lymphoma associated with exposure to 2,4 dicholorophenoxyacetic acid (2,4-D in pet dogs. We conducted a study to determine the extent to which dogs absorb and excrete 2,4D in urine after contact with treated lawns under natural conditions. Among 44 dogs potentially exposed to 2,4D treated lawns an average of 10.9 days after application, 2,4D concentrations greater than or equal

to 10.0 micrograms/l were found in 33 dogs (75%) and concentrations of > or = 50 micrograms/l were found in 17% (39%). [Truncated to save space.] AUTHOR : Zahm SH; Blair A TITLE: Pesticides and nonHodgkin's lymphoma. JOURNAL: Cancer Research 1992 Oct 1; Vol:52 (Part: 19 Suppl) Pg:548 5s 5488s The incidence of nonHodgkin's lymphoma (NH) has increased over 50% in the last 15 years. This paper reviews the possible role of pesticides in this increase. [...] Canine malignant lymphoma has also been associated with dog owner use of 2,4 dichlorophen oxyacetic acid and commercial lawn pesticide treatments. [Truncated to save space.]

Also, I came across this repost on a gardening list. Since I'm reposting it without permission, I'm omitting author 's identification:

>From an article about cancer , entitled "How Goes the War?", in the March >27April 2, 1995 issue of the Washington Post, National Weekly Edition:

>Several types of cancer are becoming more common for no apparent reason.... Of particular concern...is increased incidence of brain cancers (above and beyond the increase that is due to improved brain imaging technology), non Hodgkin's lymphoma..., kidney cancer and testicular cancer

>Nobody knows why this handful of varied cancers are becoming more common , but some epidemiologists strongly suspect that environmental toxins are to blame. They point in part to studies of American farmers to back up their claim.

>American farmers are far healthier than the typical American; for the most part they don't smoke and they have impressively low rates of cancer, heart disease and other ailments. Oddly, however, for decades they have exceeded the national average for several cancers, including leukemia, nonHodgkin's lymphoma and cancers of the brain and prostate...

>There are two things notable about that collection of tumors ...: They are cancers that are in many cases just now starting to become more common in city people . And they are cancers that tend to appear in people whose immune systems are damaged....

"So a working hypothesis is that in agriculture there may be environmental factors that impinge on the immune system , giving cancer a boost ," Blair [the chief of the National Cancer Institute's occupational safety section] says. "And these undetermined factors may also be getting into the general population and may be contributing to some extent to the rise in these tumors ."

>What kind of immune suppressing carcinogens have farmers long been exposed to that are only now becoming common in the Big City?

>Pesticides are a perfect example, Blair says. "Farmers have been handling pesticides since the 1960s, but only since the '70s and '80s did you see this in the urban environment" with the rise in lawn care services and home use weed killers and insecticides . Similarly, Blair says, "30 years ago, you didn't fill your own tank with gas and breathe the fumes. Farmers have been filling their own tanks forever."

>No one knows whether these types of exposures are causing significant numbers of cancers in people , Blair says. But animal and epidemiological studies have shown an association between nonHodgkin's lymphoma, brain and kidney cancer , he says, and exposure to pesticides or solvents such as gasoline products

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These info sheets are dedicated to the memory of Bob Brady Jr. (1954 1995) Bob was a longtime participant in the dog newsgroups and was a tireless defender of Greyhound rights .

He loved, and was loved, by his four 'greykids', General Hampton, Miss Charlotte, Jennie Mae, and Blaze (a.k.a., Blaze Monster). Bobs wisdom and gentle wit will be missed by many of us whose lives he touched.

We miss you Bob, and we will keep up the fight for the Greyhounds...they do need us.