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We Give!

SAVE A DOG!

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IT'S THAT EASY!

(Remember: you must be logged-in to iGive before you begin your search!)



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THE WAY HOME

An outreach e-communication from Papillon Haven Rescue

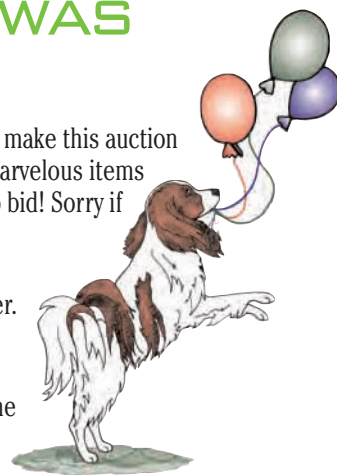
THE SPRING AUCTION WAS A HUGE SUCCESS!

Once again, all of our PHR Family and Friends have helped us make this auction a success. **Thank you!** Thanks to our donors, who found marvelous items to stock our auction pages. Much appreciation to those who bid! Sorry if someone beat you out for a particular item ... Better luck next time!

On May 3, at midnight (CST), the gavel fell on our latest auction. Thousands of dollars worth of merchandise was bid upon and haggled over.

The final tally at the end of bidding totalled over \$2,400! All of this money will go to the rescues we so desperately try to help! Many bids brought in exceptionally more money than originally expected. "Even in the rough U.S. economy, it was wonderful to see that everyone remembered these wonderful little creatures!" stated Director Jan Jorolan.

Donors are encouraged to send their merchandise for the next event to Jan Rasch.



MORE EVENTS ARE ON THE WAY ...

Starting July 13th, PHR will host its next Quilt Auction. This lovely item was commissioned by our own Mary Fournier of Maine. Done in lovely shades of blue, it will be a wonderful addition to anyone's decor. Ticket sales will run through Aug. 16.

October 2009 will bring the next PHR Auction ... more great items for holiday gifts.

February 2010 - in conjunction with the American Kennel Club event - brings the PHR Westminster Games! Ticket prices TBA.

Watch future issues of *The Way Home* for further details, ticket prices, and deadlines.

PAPS-OF-THE-MONTH: BUSTER & FLYER



Hi! I'm **Buster** (age 3) and I love to be the center of attention. My new foster mom says I deserve to be. I am just adorable! Just look at my sweet

face and lovely eyes. I am happy all the time. Ok, I am big, I weigh in at 16 pounds but it looks good on me! I am an active boy who loves to go on long walks, play ball, and chase anything that hops. I love to play in the water. I have a new swimming pool that I am sharing with my new papillon friends. I am going to an obedience / rally class on Wednesday nights. I am there to socialize but I am so smart that I am learning basic obedience. I should get an "A" in the class. I never meet a stranger and I would love to meet you!

Howdy! My name is **Flyer** ... or "Fly-Boy" as my foster mom calls me. I am 16" tall and weigh 18 lbs. (age 3). I don't want to brag but I am very smart

according to my foster parents. I am fully grown with the heart of a puppy ... that means that I love to play, take walks, learn new tricks, and snuggle. I sleep all night in my crate but I'm ready to go in the morning. Is there anyone out there who needs a dog to play with? Or take long walks? Or snuggle? I hope so ... I'm sitting by the phone waiting for you. *Love & Slurpy Kisses, Flyer (aka Fly-Boy)*. Flyer isn't bragging when he says he is smart and learns new things easily. He is full of energy but settles down well when the rest of the house is quiet. He would make a wonderful active dog for a young family.



PHR HIGHLIGHTS MEMORIAL CONTRIBUTIONS

In recent months, PapHaven has received several bequests honoring pets and family members who have passed away. You will now find an icon toward the bottom of the home page named "Memorials."

If you, or someone you know, would be interested in participating in this, please refer them to this page. Bequests can also be made directly as part of your last will & testament. Thank you all.

Papillon Haven Rescue

REMEMBERING



Honoring Nell McKay by Elizabeth & Dudley Schneider



Memorial for Madeline Deanna Vose 16 Mar 2000

John & Mary Rausch
Will & Patricia Stout
Jon & Larissa Daily
Don LaRue
Rita Sanders
Carol A. Smith

Rooks County 4-H Club
Abby Jakopko
Dodge City Kennel Club
Ann M. Malosh
Jimmy and Jennifer Osbey



Memorial for Teddy by Linda and Helmut Fleisch August 21, 2001



In Memory of Auntie - Bertie Lunaas 11 July 2008
Jan & Al Jordan



IMO Annie Girl... Not gone, but just gone ahead... We miss and love you Annie Girl... Until we meet again... Love, your foster mom and dad, and all your foster brothers and sisters...

Terri Kent and family

"It came to me that every time I lose a dog they take a piece of my heart with them. And every new dog who comes into my life gifts me with a piece of their heart. If I live long enough, all the components of my heart will be dog, and I will become as generous and loving as they are" Zuccaro

K-9-INGREDIENT MEATBALLS

Rachael Ray on 04/09

Makes 10 to 12

Check with your pet's doctor before feeding any human food. Pets can't digest the same things as humans and your vet is the best person to help you decide if this recipe is right for your pooch.



INGREDIENTS

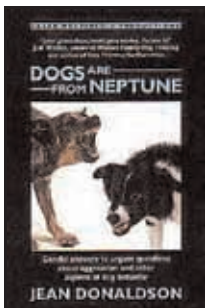
- 1/2 pound ground beef
- 2 teaspoons ground turmeric
- 1/2 cup cooked brown rice
- 1 carrot, shredded
- 1 stalk celery, finely chopped
- 1 large egg
- 1/2 cup frozen chopped spinach, thawed and drained
- 2 tablespoons chopped flat-leaf parsley
- 2 tablespoons parmigiano-reggiano cheese

DIRECTIONS:

Preheat the oven to 400°. Grease a muffin pan or a baking sheet. In a medium bowl, combine all of the ingredients and mix well. Fill each muffin tin with about 1/4 cup of the mixture, or form the mixture into balls and place on the baking sheet. Bake until cooked thru, about 15 minutes. Let cool completely on a rack.

BOOK REVIEWS —

'WE'RE ALL EARS!'



DOGS ARE FROM NEPTUNE

by Jean Donaldson

Candid answers to urgent questions about aggression and other aspects of canine behavior, from the author of *Culture Clash*.

Includes case histories and guidelines for dealing with:

- **aggression toward** strangers;
- **behavior problems** such as counter surfing, barking, mouthiness during play, mounting, stool eating;

- **dog-dog aggression;**
- **fear and anxiety** problems;
- **obedience problems** such as off leash control, recall off distractions, pulling, stay breaking; and
- **resource guarding.**

Uses positive reinforcement methods: clickers, praise, treats, and recommends *Gentle Leader* in certain cases.

Whole Dog Journal said: "Written with the engaging, funny language that is Donaldson's trademark, and contains a wealth of information based on positive training methods."

HELP WANTED!

WHAT DO YOU FEED YOUR DOG?



If the answer is Natural Balance, then we need your help!

Van Patten's Natural Balance Pet Foods has offered to make a donation to a rescue group if they can save 50 bar code / receipts from their foods (specific flavors don't matter). They do require 50 bar codes before they will accept a submission.

If you can help, please send your bar codes and receipts to Stephanie Sherwin — she will collect and then mail in the necessary paperwork when we have enough for submission. This is a continuous program — so please to save them!

Please send to:

4 Woodsong, Roland, AR 72135

PLEASE! Feel free to cross-post our news!

Dear God:

- Why do humans smell the flowers, but seldom, if ever, smell one another?
- When I get to heaven, can we sit on your couch? Or is it still the same old story?
- Why are there cars named after the colt, the jaguar, the cougar, the mustang, the stingray, and the rabbit, but not ONE is named for a dog? How often do you see a cougar riding around? We do love a nice ride! Would it be so hard to rename the 'Chrysler Eagle' the 'Chrysler Beagle'?
- If a dog barks his head off in the forest and no human hears him, is he still a bad dog?
- We dogs can understand horns, clickers, human verbal instructions, hand signals, beepers, electromagnetic energy fields, whistles, scent ID's, and Frisbee flight paths. What do humans understand?
- More meatballs, less spaghetti, please.
- Are there mailmen in Heaven? If there are, will I have to apologize?
- Let me give you a list of just some of the things I must remember to be a good dog:
 1. I will not eat the cats' food before they eat it or after they throw it up.
 2. I will not roll on dead crabs, fish, sea-gulls, etc., just because I like the way they smell.
 3. The Litter Box is not a cookie jar.
 4. The sofa is not a 'face towel'.
 5. The garbage collector is not stealing our stuff.
 6. I will not play tug-of-war with Dad's underwear when he's on the toilet.
 7. Sticking my nose into someone's crotch is an unacceptable way of saying 'hello'.
 8. I don't need to suddenly stand straight up when I'm under the coffee table.
 9. I must shake the rainwater out of my fur before entering the house – not after.
 10. I will not come in from outside and immediately drag my butt.
 11. I will not sit in the middle of the living room and lick my crotch.
 12. The cat is not a 'squeaky toy' so when I play with him and he makes that noise, it's usually not a good thing.

P.S. God: *When I get to Heaven may I have my testicles back?*

INFO FROM AKC.ORG WEBSITE

PAPILLON – DID YOU KNOW?

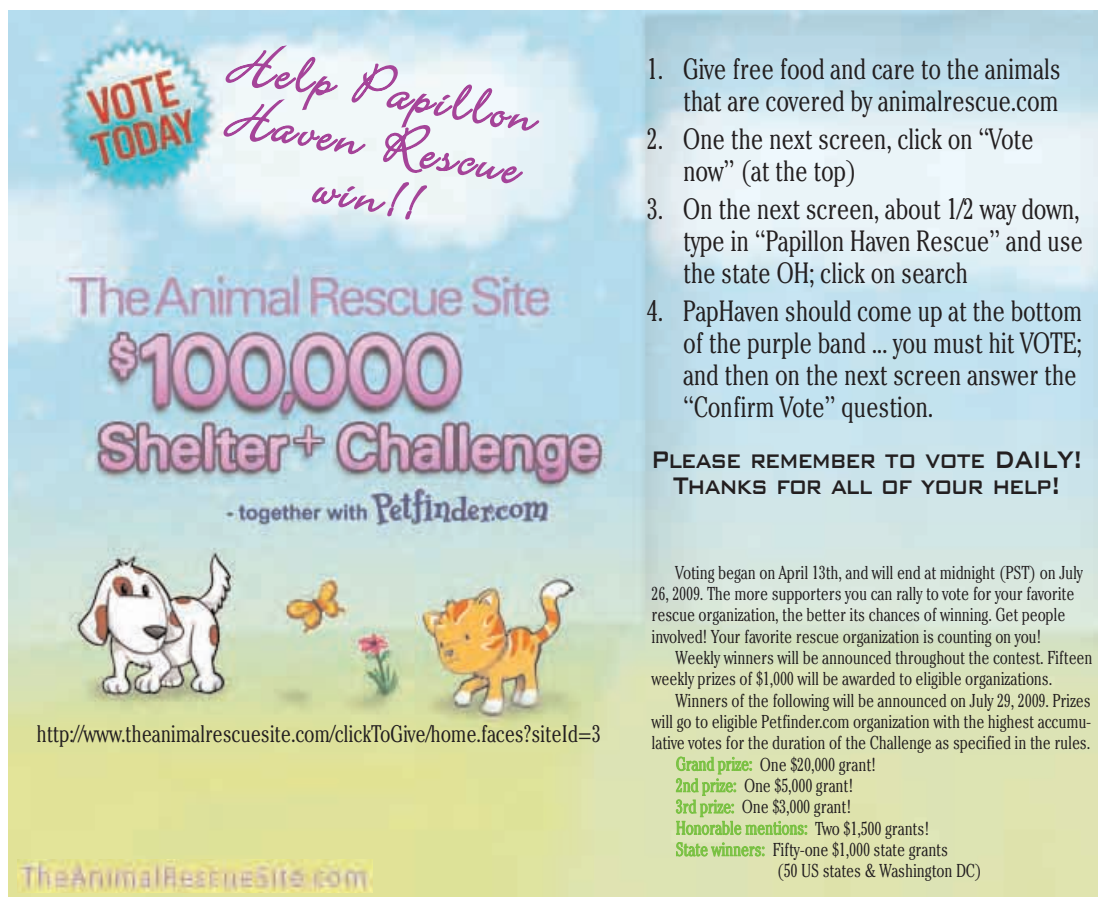
- The name Papillon means “butterfly” in French.
- In Europe, the drop-eared variety of Papillon is called Phalene, and it competes with equality in the ring against the erect-eared type.
- The Papillon was known previously as the “Dwarf Spaniel.”
- Marie Antoinette was an ardent admirer of Papillons.
- AKC recognized Papillons as part of the Toy Group in 1915.
- Papillons were not fully represented in the AKC by their own breed club (Papillon Club of America) until 1935.
- Papillons rose to fame in Spain.

PETA AD FEATURES PAP/CHI MIX

The ad pictured below is part of a new advertising campaign from PETA (*People for the Ethical Treatment of Animals*). Speedy is a papillon/long-haired chihuahua mix.



HAVE YOU VOTED FOR PAPHAVEN TODAY???



VOTE TODAY

Help Papillon Haven Rescue win!!

The Animal Rescue Site
\$100,000 Shelter+ Challenge
- together with **Petfinder.com**

<http://www.theanimalrescuesite.com/clickToGive/home.faces?siteId=3>

TheAnimalRescueSite.com

1. Give free food and care to the animals that are covered by animalrescue.com
2. One the next screen, click on "Vote now" (at the top)
3. On the next screen, about 1/2 way down, type in "Papillon Haven Rescue" and use the state OH; click on search
4. PapHaven should come up at the bottom of the purple band ... you must hit VOTE; and then on the next screen answer the "Confirm Vote" question.

**PLEASE REMEMBER TO VOTE DAILY!
THANKS FOR ALL OF YOUR HELP!**

Voting began on April 13th, and will end at midnight (PST) on July 26, 2009. The more supporters you can rally to vote for your favorite rescue organization, the better its chances of winning. Get people involved! Your favorite rescue organization is counting on you!

Weekly winners will be announced throughout the contest. Fifteen weekly prizes of \$1,000 will be awarded to eligible organizations.

Winners of the following will be announced on July 29, 2009. Prizes will go to eligible Petfinder.com organization with the highest accumulative votes for the duration of the Challenge as specified in the rules.

Grand prize: One \$20,000 grant!
2nd prize: One \$5,000 grant!
3rd prize: One \$3,000 grant!
Honorable mentions: Two \$1,500 grants!
State winners: Fifty-one \$1,000 state grants (50 US states & Washington DC)

PapCrafters Announce a New Project!

We are going to make a quilt to offer for auction and we'd like to ask everyone to participate

The guidelines are very simple: Any form of quilt, fiber or thread art in a butterfly motif will be accepted. Each block to be submitted in a 10 1/2" x 10 1/2" format with the design field not to exceed 8" x 8". Blocks must be of high quality 100% cotton fabric that is pre-shrunk, 100% colorfast and 100% washable.

Any kind of quilting, embroidery, fabric painting, weaving, collage representing butterflies - anything goes as long as the size and fiber requirements are as listed above. Let your imagination FLY!!!!!!!!!!!!!! Completed block(s) due October 1, 2009.

Anyone not interested in contributing a block to the quilt can become a 'Quilt Adopter' and offer financial assistance to defray cost of batting, backing and border fabric.

For further information contact hiddy-anneverett@earthlink.net

WHO'S WHO?

What began after a discussion with a few members has helped us to better know our colleagues. Not to say that we all need 'intimate details' about each other's lives, but even a little knowledge helps us know each other a better!

WHO'S NEXT ...

My name is Jan Rasch ... Hello! I became associated with PapHaven Rescue about 4 years ago when I adopted Shorty, my Pap mix.

Shorty is my constant companion, and our personalities mesh incredibly well. He is somewhat of a couch potato, but does like to go on his daily walk. He also attends day camp about once a week so he can mix a little with other dogs. He absolutely LOVES to go to day camp. I think that he should have a brother or sister, but he really likes being an only child. He gets really cranky for weeks on end when we take care of our daughter's dogs or have a foster for transport. He can get a little grumpy at night when he wants my reading chair all to himself so he can sleep, but other than that he is a real sweetie-pie.

My most recent accomplishment is chairing the Spring Auction. It was one of those things I had never done before, so of course I procrastinated doing it, but I did learn to upload photos to the computer, and I really had a good time. In fact, I have volunteered to do the Fall Auction also.



Shorty – What a FACE!!!

I do transport when there is a puppy that needs to get from here to there in the St. Louis area, and enjoy that too.

I've been "retired" for about 3 years. My retirement came about because my folks, both in their upper eighties, had become fairly frail in their health, but didn't want to

move to an assisted living facility. My Dad actually told me that he had 6 kids so that he would have someone to take care of him in his old age. Somehow, I doubt that he was thinking about his old age in his twenties and thirties when the kids came along.

Anyway, it became obvious at the beginning of 2006 that help was needed for every day things like laundry, cooking, appointments, etc., and I was the only volunteer. Both of my parents have since passed, and I am still retired, only because the economy isn't cooperating and no one wants to look at a resume with a 3-year gap.

I've been married for almost 35 years to Dave, who is an Electrical Engineer at Boeing – since graduation from college. I have 2 daughters, Tracy, who lives in St. Louis, MO, and works for Fidelity Investments, and Nicole who lives in Jackson, WY, works for the Community Foundation of Jackson Hole, and is getting married in June. To date no one has given me any grandkids, which is not at all acceptable. However, with 5 siblings, I do have quite a few nieces and nephews, and even a few great-nieces and -nephews.

When my kids were in school, I worked various part time jobs averaging about 24 hours a week. I was a room mother 6 times while my daughters were in grade school, and also a Girl Scout leader for about 4 years. Once Tracy entered college, however, full time work became a necessity. I went back to work as an Executive Assistant working for 20+ years for senior executives at Fortune 500 companies. I think that's where I learned how to be "assertive." Also, fairly efficient, well organized, and maybe a little bit of a work-a-holic. I am a BIG list maker and I absolutely love to cross things off when they have been completed. Unfortunately, I'm also somewhat of a procrastinator when I have to



The Rasch Family

do something that I haven't done before. I like learning new things, and believe that a person should learn at least one new thing each day.

THE END?

We ALL appreciate Jan's stepping up to help out with our auctions – which are a huge money-maker for our PHR babies!

NEXT MONTH ...

Deb Bassett from Rochester, NY.

ARE YOU A MEMBER OF ...



Join other PHR members on this exciting site! Network, chat, share ideas that are OT (off-topic) on the PapHaven group's email site.

Also, join the **Facebook – PapHaven Rescue** page. Or refer your friends and family to this page ... great way for them to get their 'feet wet' to the fundraising and ideas of PHR! Our e-news, fundraising, and general information are up-to-date for anyone who wants to get a better idea about what we do!

If you are already a member of *Facebook*, look us up!

BE A WELL-EDUCATED OWNER

WHAT IS A SEIZURE?

Any involuntary behavior that occurs abnormally may represent a seizure. Seizures are classified into several categories.

- **Generalized (Grand Mal) Seizures** – The most common form of small animal seizure. The entire body is involved in stiffness and possibly stiffness/contraction cycles (tonic/clonic action). Loss of consciousness and urinating or defecating may occur.
- **Partial Seizures** – This form of seizure originates from some specific area in the brain and thus involves the activity of a specific region of the body. Partial seizures may “generalize” to involve the whole body.
- **Psychomotor Seizures** – This type of seizure is predominantly behavioral with the animal involuntarily howling, snapping, circling, etc. The abnormal behavior may be followed by a generalized seizure.

Seizures (neurological events) are often difficult to tell from fainting spells (cardiovascular events). Classically, true seizures are preceded by an aura, or special feeling associated with a coming seizure. As animals cannot speak, we usually do not notice any changes associated with the aura. The seizure is typically followed by a post-ictal period during which the animal appears disoriented, even blind. This period may last only a few minutes or may last several hours. Fainting animals are usually up and normal within seconds of the spell.

*** POST-ICTAL DISORIENTATION IS THE HALLMARK OF THE SEIZURE ***

CAUSES OF SEIZURES & DIAGNOSTICS:

Seizures may be caused by situations within the brain (such as trauma, tumor, or infection) or by situations centered outside the brain (such as low blood sugar, circulating metabolic toxins, hypothyroidism, or external poisons). The first step is to rule out situations centered outside the brain, accomplished with blood testing. An ophthalmic exam may also be performed as the retina may show signs of a brain infection. If these tests are negative, the next step is determined by the age of the pet.

- **Pets less than age 1 year** – Seizures are usually caused by infections of the brain. Analysis of cerebrospinal fluid, obtained by a tap under anesthesia, would be important.
- **Pets between ages 1 & 5** – In these animals, usually no cause can be found and the term “epilepsy,” which simply means “seizure disorder,” is applied. If seizures occur frequently enough, medication is used to suppress them. Basset hounds, Cocker spaniels, Schnauzers, and Collies, have 2-3 times as much epilepsy as other breeds.
- **Pets more than age 5 years** – In this group, seizures are usually caused by a tumor growing off the skull and pressing on the brain (a “meningioma”). Most of these tumors are operable if found early. A CT scan or MRI would be the next step. Special referral is necessary for this type of imaging. Where surgery is not an option, corticosteroids may be used to reduce swelling in the brain. Treatment to suppress seizures may also be needed.

Epilepsy is the name given to seizure disorders for which no cause can be found. It is not a unique disease in and of itself. In the dog, “epilepsy” is a common diagnosis but in the cat most of the time a complete work up (including a CSF tap and imaging study of the brain) leads to a diagnosis.

- Seizures resulting from metabolic problems or toxicity (i.e., when the brain itself is normal) are called **Reactive Seizures**.
- Seizures resulting from an identifiable brain abnormality are called **Secondary Seizures**.
- Seizures for which neither of the above problems apply (i.e., when no cause can be found) are called **Primary Seizures**.

MEDICATION TO SUPPRESS SEIZURES: PHENOBARBITAL

Treatment of any seizure disorder is aimed at suppressing the seizure with medication – Drug of choice is still phenobarbital.

When to begin treatment:

- When special circumstances exist regarding how often the animal is observed. (If an animal cannot be observed, there is no way of knowing how frequently its seizures are occurring. It may be best to “play it safe.”)

- When seizures occur in “clusters,” that is one after the other.
- When isolated seizures occur once a month or more.

WHAT YOU SHOULD KNOW ABOUT PHENOBARBITAL:

This medication is a long-acting barbiturate capable of suppressing seizure activity in the brain. It is an inexpensive drug though the appropriate monitoring blood tests amount to about \$300-\$400 per year.

It takes 1-2 weeks to build up a blood level capable of suppressing seizures. This means that the effectiveness of a given dose cannot be assessed before this period. After this time, a phenobarbital blood level should be run to determine the effectiveness of the dose being used. Phenobarbital blood levels, once therapeutic, need to be checked every six months or sooner if breakthrough seizures occur.

Twenty to 30 percent of epileptic dogs cannot be controlled with phenobarbital alone. If an animal on phenobarbital continues to seizure, a blood level must be drawn. Before adding other drugs, however, it must be shown that the maximum therapeutic phenobarbital blood level has been ineffective; most animals in this situation are nowhere near the maximum level and simply require a dose higher than what they are receiving. If phenobarbital is simply not effective or has unacceptable side effects, potassium bromide (see below) may be used to complement phenobarbital at a lower dose.

Another important part of monitoring regards the toxicity of phenobarbital. This medication can be harmful to the liver thus liver function is periodically checked. Our hospital recommends a bile acids liver function test and a phenobarbital blood level twice a year.

COMMON SIDE EFFECTS:

- **Sedation** – animals may become quite stuporous as they get used to this drug. This effect is temporary, lasting until the patient's metabolism adjusts (usually no longer than a few days). Animals with brain tumors tend to have more long term sedation issues with this medication.
- **Excessive thirst & appetite** – These side effects are annoying and, unfortunately, permanent if they occur. If these side effects become too objectionable, the phenobarbital dose will have to be

(continued on pg. 7)

PLEASE! Feel free to cross-post our news!

WHAT IS A SEIZURE?

(continued from pg. 6)

lowered and another medication added for seizure control. Cats on phenobarbital are generally spared these particular side effects.

WHAT IF PHENOBARBITAL DOESN'T WORK OR CAUSES SIDE EFFECTS?

For such cases potassium bromide becomes the next best choice. The phenobarbital dose is generally cut back and potassium bromide is given at a high dose for a day or two before dropping to a maintenance bromide dose. **Potassium bromide** is felt to be an investigational treatment by the FDA and special permission is needed to use it; still, 85 percent of phenobarbital failures can be controlled with potassium bromide. Bromides reach therapeutic levels very slowly (months) thus, in most cases, bromides and phenobarbital are used in combination. When both drugs are used together, their side effects become added together so, for example, if one did not see sedation or excessive water consumption as a side effect of significance with phenobarbital alone, one is much more likely to see them now.

Between 25 percent and 30 percent of epileptic dogs are still uncontrolled despite excellent blood levels of phenobarbital and/or potassium bromide and there is a long list of anti-seizure drugs available for people. Many dog owners wonder why we seem limited to two medications when it comes to dogs. In fact, most of the drugs used on humans are either prohibitively expensive for dogs or must be used with a very inconvenient dosing schedule (pills several times a day). This said, some of these medications may be used as supplements to Phenobarbital and/or Potassium bromide.

Felbamate (Felbatol®) – This drug has very little side effects potential but usually requires a three times daily dosing schedule and does not work well in puppies. The use of this medication typically costs between \$100 and \$200 per month for a larger dog. Because it does not have potential for sedation it can also be used as the sole therapy for a dog with brain disease that causes a drowsy attitude (while other drugs might make this worse with their sedating properties).

Gabapentin (Neurontin®) – This medication requires dosing 3-4 times daily and it is of similar expense as Felbamate. On the

plus side, it has very little potential for side effects and reaches a stable blood level within the first week of administration. Some experts have been pleased with results on Gabapentin while others have not.

Clorazepate (Tranxene®) – This medication is related to diazepam (more commonly known as valium®), an excellent anti-seizure drug in emergencies. Contrary to what one might expect, the sustained-release formula does not last particularly longer than the regular formula in dogs. How long it actually does last is highly variable in each patient and some dose experimentation may be needed before deciding if it works. Further, it is a drug to which tolerance often develops so the dose may have to be increased as time passes. If one decides to discontinue its use, though, it must be tapered slowly off as sudden discontinuance can lead to withdrawal seizures.

Levetiracetam (Keppra®) – This drug is very popular for refractory epilepsy in dogs because it has been shown to be fairly reliable and has minimal side effects potential. Its disadvantages include expense (expect \$250-\$300 per month for a big dog) and the three times daily dosing schedule. Dosing may require some experimentation to hit on what is effective for a given patient.

SEIZURES AT HOME (WHEN IS IT AN EMERGENCY?)

It is a lucky pet that never has another seizure after beginning medications; but an occasional breakthrough seizure (as disturbing as it may be to watch) is rarely of serious concern. It is important not to put yourself in danger around a seizing pet. Involuntary jaw snapping may bite you and in the period of post ictal disorientation the pet may not recognize you and may snap. There are, however, some emergency situations:

- **Seizure activity non-stop for 5 minutes or more** (called “status epilepticus”)
- **More than 3 seizures in a 24-hr period.** If a particularly bad seizure occurs at home or if either of the above emergencies occur, a special first aid technique can be used: Rectal administration of valium®. In initial studies the injectable product was delivered rectally with a special syringe that could be kept at home. The rectal route avoids any danger of being bitten while trying to administer medication. Recently compounding pharmacies have been able to produce

valium rectal suppositories which may be easier to use than the syringe method. Rectal valium administration has been used successfully for many years in epileptic children; the technique has adapted well to veterinary patients.

CAN SEIZURE MEDICATION BE STOPPED?

While there is some risk to discontinuing seizure medications, this may be appropriate for some patients. Dogs should be completely seizure-free for at least a year before contemplating stopping treatment. In breeds for which seizure control is difficult, it is probably best never to stop medication (German Shepherds, Golden Retriever, Irish Setter, Keeshonds, St. Bernard, Siberian Huskies). Phenobarbital is a medication that cannot be suddenly discontinued; if you are interested in discontinuing seizure medication, be sure to discuss this thoroughly with your vet.

OTHER INFORMATION:

The Epilepsy Genetic Research Project

Veterinary Neurologists at several universities are looking for a genetic answer to epilepsy. They seek DNA samples from epileptic dogs and their close relatives if possible. For more information, visit

www.canine-epilepsy.net/cerc.html

Canine Epilepsy Network

Affiliated with the Veterinary School at the Univ. of Missouri at Columbia, this site reviews canine seizure disorders, treatment, history and more. www.canine-epilepsy.net/basics/basics_main.html

Epil-K9

This is a support and news group for owners of seizing dogs. The group has a substantial library of useful resources which can be viewed at: www.canine-epilepsy.com

EDITOR'S NOTE:

As with any illness/medical condition affecting your pets, **PLEASE** consult your vet before making any change to your dog's health care routine. I provide these stories to help you take notice of possible issues with your Pap, NOT to give us the “vet's point of view!”

Hope this helps answers any questions you might have about this issue.

THE ROLE OF A HEALTHY, NATURAL DIET IN THE MANAGEMENT OF CANINE SEIZURES

by Chris Alderson, Kathy Herman and Marion Mitchell (Revised 12/16/2003 by Chris Alderson)

<http://www.canine-epilepsy.com/healthydiet.html#anchor6386201>

NOTE: While PHR does not support raw diets for our rescue pups, this article may answer questions about diet options for your OWN dogs that have seizure issues.

An emerging trend in healthcare is the focus on the link between diet and disease. There is an ever-increasing recognition that what we eat provides the foundation of our health. Good nutrition equals good health. Poor nutrition equals poor health and leads to disease. This is a simple premise that we all should recognize - and one we need to extend to the way we feed our canine companions. The health and happiness of our dogs is dependent upon the environment we provide them, and perhaps more importantly, the diet we feed them.

More often than not, it takes a major illness or chronic allergy in a dog before we recognize the need to examine the diet of our dog. Allergies are the most common and one of the most visible symptoms of nutritional deficiencies. Dr. Alfred Plechner, DVM in his book *Allergies: Remedies for an Epidemic*, states: "Because many commercial foods are woefully deficient in key nutrients, the long-term effect of feeding such foods makes the dog hypersensitive to its environment. It's the dinosaur effect. Animals are being programmed for extinction."

All dog owners interested in improving their dog's health should do their own research on nutrition. If your dog is suffering from a particular disease or condition, it is vital that you learn what a canine requires in its diet and environment to sustain good health and how improving the diet can help solve health problems. As in human health care, diet is the foundation of good health for canines too. Recognizing nutritional deficiencies - that is, learning to identify symptoms that the deficiencies cause - is the beginning of solving many canine health problems.

For dogs with seizure disorders, pedigree, environment and other health conditions are generally the first things taken into consideration when searching for a diagnosis, but rarely is diet examined for a possible link to the seizures. However, as in humans, nutritional deficiencies can cause symptoms that include seizures or that can aggravate the seizures of a dog diagnosed with epilepsy.

It is becoming increasingly clear to many owners of seizing dogs and some vets that diet plays a vital role in the management and con-

trol of canine epilepsy. Correcting nutritional deficiencies can help reduce or control seizures in epileptic dogs, and in some cases, may eliminate seizures in dogs completely.

Improving the dog's diet in an effort to correct nutritional deficiencies can be achieved through a number of avenues.

- (1) Changing from a supermarket commercial diet to a superior grade commercial diet with premium ingredients, including superior sources of protein and free from artificial preservatives and additives (including chemical preservatives BHA, BHT, and ethoxyquin and propylene glycol which is sometimes added to keep "chewy" foods moist) artificial colors and flavors and sweeteners (added to make poor quality dog food more appealing to dogs).
- (2) Feeding a home cooked diet including added vitamins/minerals/nutritional supplements.
- (3) Feeding a raw diet commonly known as "BARF" an acronym for "Biologically Appropriate Raw Food" or "Bones And Raw Food" including added vitamins/ minerals/ nutritional supplements. All of the above-mentioned diet improvements can benefit your dog's overall health. In this article, we cannot begin to address all of the advantages and issues related to changing diets and the differences between diets. Any improvement is sure to benefit your dog and his health. This article will focus specifically on how raw food diets can benefit dogs with seizure disorders.

In the information that follows, we will address some general topics. There is much more to learn on the subject. Consider joining an online list that addresses canine nutrition, such as K9Nutrition or other diet lists. Some links are included at the end of this article that will start you on your way to understanding canine nutrition, and PLEASE do not consider changing your dog's diet without first understanding what a canine's diet should and should not include. For dogs on anti-epilepsy drugs (AEDs) diet changes MUST be dis-

cussed with your vet. Diet, drugs, canine metabolism and the potential interactions must all be understood before changing anything in your epi-dog's regimen.

NUTRITIONAL DEFICIENCIES & SEIZURES:

There are a number of specific nutritional deficiencies in both humans and canines that are known to cause or aggravate seizures, including vitamin deficiencies, mineral deficiencies and amino acid deficiencies. While commercial dog foods are promoted as being nutritional and well-balanced, the fact is that the process of producing these foods actually destroys the vitamins, minerals, and amino acids in the food that are essential to good health.

Protein & Amino Acids: The foundation of raw diets for canines is that dogs are carnivores that require quality sources of protein in order to live a long and healthy life. Perhaps the greatest advantage of a raw food diet is the supply of quality, unaltered protein sources that the diet provides. When your dog does not get enough animal protein/amino acids as part of his diet, or

The following websites provide additional information on amino acids and what they do:

<http://www.findarticles.com/g2603/0001/2603000153/p1/article.jhtml>

<http://www.speedyvet.com/nutrition/default.asp?module=1&page=protein>

<http://web.indstate.edu/thcme/mwking/amino-acid-metabolism.html>

<http://www.realtime.net/anr/aminoacd.html>

there is an imbalance of nutrients, a variety of health consequences can occur; epilepsy and seizure disorders are among these.

Why is protein important? In very simple terms, the body requires protein to survive. Proteins consumed in the diet are broken down into separate amino acids in the digestive tract by the action of enzymes. These amino acids are then reconstructed in the liver into the proteins that the body needs. Amino acids are the building blocks of life, but the right amino acids must be consumed in order for the required proteins to be reconstructed.

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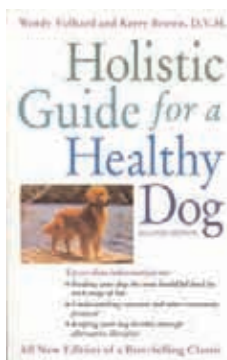
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There are 9-12 essential amino acids that are essential to life and can only be obtained through what the dog eats. Non-essential amino acids are also vital for life, but are called 'non-essential' because the canine's body can manufacture them IF adequate sources of the essential amino acids are included in the diet.

Dietary sources of high quality animal proteins in the least processed forms provide the optimum amino acid profile for the canine. Commercial diets are generally measured by the quantity (percentage) of protein in the food. While protein content is important, the source of the protein is of greater importance. In a commercial dog food, protein is provided by combining animal sources (such as meat, by-products, chicken, cheese, milk, fish, turkey or lamb) and grain sources (such as corn, wheat, rice and soy). The sum of these proteins appears on dog food packages as crude protein. Many amino acids are available only from animal protein sources, and if plant/vegetable/cereal/grain are the main protein sources, a dog may develop an animal protein deficiency. (When the package lists these protein sources first in the ingredient list or these sources dominate the first five items in the ingredient list, the food is most definitely deficient in animal protein.) When heated, proteins are partially destroyed – all dry and canned commercial dog food is heated in the manufacturing process – so commercial food contains protein that is somewhat deficient or destroyed through heating. This protein deficiency in turn, results in deficiencies of amino acids – the building blocks the body requires to reconstruct proteins essential for health, including a healthy nervous system. In dogs with seizure disorders, deficiencies of proteins and amino acids are a notable concern.

"Diets deficient in amino acids – chemicals that make up proteins – can significantly increase susceptibility to epileptic seizures in rats," according to a study by researchers at the University of California, Davis. **Taurine** is one of the amino acids that plays a critical role in the function of the nervous system. Deficiencies of this amino acid are widely recognized as a cause of seizures in humans,

felines and canines. Taurine is one of the non-essential amino acids – one that a canine can only produce if supplied adequate sources of animal protein containing the essential amino acids. In addition to specific benefits for the brain (protective effects, calming effect on nervous system) taurine also affects blood sugar levels (also implicated in seizures), assists in the body's proper use of sodium, calcium and magnesium (deficiencies of which are all implicated in seizures), and the relation of taurine deficiency to zinc deficiency (also a known cause of seizures) among other things. Clearly, this amino acid is particularly important for dogs with seizure disorders.



In Wendy Volhard's book "*Holistic Guide for a Healthy Dog*" (which can be borrowed from the PHR Library) the section on taurine includes this note regarding the amino acid: It is an "anti-convulsant, successfully used in treating epilepsy," and it "controls brain and nervous system neurons." The Strombeck book on homemade diets states that the "body uses amino acids to make chemicals that serve as regulators of neurologic function." Prescription for Nutritional Healing," (Balch and Balch), says: "Taurine has a protective effect on the brain, particularly when the brain is dehydrated. It is used to treat anxiety, epilepsy, hyperactivity, poor brain function, and seizures. It may be that a deficiency of taurine in the developing brain is involved in epileptic attacks." The amino acid taurine seems to inhibit and modulate various neurotransmitters and depress the central nervous system. This action is thought to benefit epileptics, and is recommended by naturopathic healers. Its apparent role is normalizing the balance of other amino acids, which in epilepsy are thoroughly disordered. In epilepsy, serum levels of over half the amino acids are lowered, while the serum level of taurine is high and the cerebro-spinal fluid level of taurine is low. Taurine is produced from cysteine and methionine if the body is metabolizing these normally." (<http://3service.freesevers.com/E18.html>).

Carnitine is another non-essential amino acid whose deficiency is associated with epilepsy. Many other amino acids are associated with seizure disorders. Amino acids operate in conjunction with each other, and with vitamins and minerals to ensure the body is supplied with the nutrients required for health.

Enzymes: are catalysts that accelerate the biochemical reactions in the body. They are involved in almost all body functions, including the building and the functioning of the brain and nervous system. There are two main groups of enzymes: metabolic and digestive.

Metabolic enzymes are the catalysts of the biochemical reactions within the cells themselves and are responsible for the proper functioning of all of the body's organs and tissues. Metabolic enzymes also assist in building the body using proteins, carbohydrates, and fats. They are important in the construction of new tissues and cells, including those of the nervous system.

Digestive enzymes assist in the breakdown of food, enabling nutrients to be absorbed into the bloodstream. Enzymes are found both in raw and unprocessed foods and in the body itself. Heat kills enzymes and forces the body to provide all of the enzymes required to digest the food. There are three categories of digestive enzymes: amylase, protease and lipase. Amylase breaks down carbohydrates, protease helps to digest protein and lipase aids in the digestion of fats.

When cooked/processed foods are consumed, the stomach recognizes that there are no enzymes in the food and not enough enzymes in the stomach to break the food down. In order to attempt to digest the food, the stomach sends out messages to the brain that stimulates it to 'send' enzymes from other parts of the body to assist in digestion. Enzymes are gathered (or 'robbed') from the heart, the liver, the kidneys and other parts of the body and transported to the stomach. During this process, the food sits in the stomach undigested and the various organs are 'robbed' of their enzymes in order to accomplish digestion. This process is called 'enzyme robbing' because it steals the enzymes from other body organs, enzymes that those organs require to function correctly. Over time, depletion of enzymes can cause dysfunction and disease in the organs from which the enzymes were robbed. The 'enzyme robbing' process does not happen when you feed raw foods. The raw foods contain their own enzymes and eliminate the need for the stomach to 'borrow' or 'rob' enzymes from other body organs to accomplish digestion. A canine diet rich in raw animal and plant material provides a rich source of supplemental enzymes necessary for the continuing good health of our pets.

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VITAMINS

Vitamins act as catalysts to release the nutrients in the food the dog consumes. Vitamins found in raw foods are almost entirely destroyed by the heat used in the manufacturing of commercial foods – a fact that the manufacturers acknowledge, but cannot overcome. They must use heat to produce the food, and heat kills vitamins. Vitamins exist in two basic forms water soluble and fat soluble. Vitamin B and Vitamin C are water-soluble and any excess is filtered out of the body within four to eight hours. Because of this, Vitamin B and Vitamin C should be consumed at each meal. In simple terms, Vitamin B and C cannot be ‘overdosed.’ Vitamin A, D, E, and K are fat-soluble and stored in the body if excesses are consumed. As with humans, canines have vitamin requirements in order to sustain life and good health. The lack of the required vitamins leads to disease and dysfunction. There are various vitamin deficiencies that are specifically linked to seizures in humans and canines.

Vitamins A & D: Careful regulation of calcium levels is vital for normal nerve impulse transmission. Vitamin D plays a role in the functioning of healthy nerves by regulating the level of calcium in the blood. Adequate Vitamin A is also required for proper nerve function.

Vitamin B: (made up of individual parts and commonly called B Complex), is fragile, water-soluble vitamins that are required for a number of critical body functions

including assimilating fat and protein, promoting various biochemical reactions, building antibodies, red blood cell formation and more. Bs are crucial for neural function. Specifically, deficiency of Vitamin B6, B12, and Folic Acid are implicated in seizures. The individual parts of Vitamin B are synergistic with each other and other vitamins and should be supplied in B Complex form to avoid any imbalance. Holistic veterinarians state that “it has long been known that a deficiency of vitamin B6 or any interference with its function can cause seizures in any mammalian species, including man and dog.” Because these vitamins are fragile and easily destroyed by cooking, commercial diets are lacking in Vitamin B. Raw diets provide Vitamin B in unaltered form, but many raw feeders and care givers for dogs with seizure disorders add additional Vitamin Bs in supplement form to their dogs’ diets. Vitamin B is an extremely important element in an epileptic dog’s diet. Vitamin B Complex supplement is crucial if you are feeding a commercial diet and is also supplemented with homemade cooked or raw diets. Remember, adequate levels of B vitamins are critical to your epi-dogs health, and because Bs are water-soluble, you cannot overdose your dog with this vitamin.

Vitamin C: is a synergistic vitamin that works in conjunction with all other vitamins and minerals that your dog’s body needs for good health. Vitamin C protects against allergies and viral diseases and is an antioxidant that protects the body against damaging elements. Vitamin C also helps

counteract side effects from various drugs. It is a water-soluble vitamin and though there is no direct link between C deficiency and seizures, C works so closely with every other vitamin and mineral that without adequate Vitamin C, other vitamin or mineral deficiencies could occur.

Vitamin E: functions primarily as an antioxidant in protecting against damage to the cell membranes. Without Vitamin E, the cells of the body would be quite susceptible to damage, nerve cells in particular. Vitamin E interacts extensively with other antioxidant nutrients, especially Vitamin C and the mineral Selenium. Free radicals (unstable molecules) can be produced by exposure to some chemicals and by head trauma, and these can, of course, cause seizures. And seizures themselves generate more free radicals. These factors combined can possibly set up a cycle that leads to frequent seizures. As an antioxidant, Vitamin E is a scavenger of free radicals that help save cell membranes from harm. Additionally, in human patients, treatment with anticonvulsive drugs is associated with reduced Vitamin E levels. It is believed the Vitamin E deficiency can worsen seizure activity. Vitamin E may be effective in reducing seizure frequency because it helps to compensate for a drug-induced vitamin deficiency. Findings from some current studies in human epileptics indicate that adding Vitamin E to the diet of epileptics on AEDs may further reduce seizure frequency.

MINERALS:

Though dogs can make a limited amount of some vitamins in their bodies, minerals cannot be made in the body and must be obtained through dietary sources. Since 50 percent to 80 percent of minerals are lost in the manufacturing process of commercial foods, dietary mineral deficiencies can result and related-health consequences may arise. As with vitamins, there are a number of mineral deficiencies that are recognized to cause or aggravate seizures in dogs and humans. Minerals are synergistic with each other and with some vitamins / enzymes – that is, these all work together and depend upon each other to ensure good health. The minerals perform a wide range of function, including the promotion of a healthy nervous system.

Trace mineral deficiencies can result from: a lack of minerals in the foods used in the diet; destruction of minerals in the foods

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RECOMMENDED READING:

Before you change your dog’s diet, it is important to do some research and reading – to understand the basic nutritional needs of a dog and learn the particular requirements of a dog with seizure disorders. This is particularly important if your dog is on AEDs. Any diet change can impact the dog’s metabolism and how he metabolizes his AEDs. Consult with your vet before you change anything in your epi-dog’s regimen.

We recommend you join one of the online canine nutrition lists, raw diet lists, or breed specific diet lists to learn more. A number of books are also good sources to learn about natural diets for dogs, including:

- Give Your Dog A Bone by Ian Billinghurst, D.V.M.

- The BARF Diet by Ian Billinghurst, D.V.M.
- Grow Your Pup With Bones by Ian Billinghurst, D.V.M.
- Dr. Pitcairn’s Complete Guide To Natural Health for Dogs & Cats by Dr. Richard Pitcairn, D.V.M.
- Natural Nutrition for Dogs and Cats: The Ultimate Diet by Kymthy Schultze
- Earl Mindell’s Nutrition and Health for Dogs by Dr. Earl Mindell

LINKS TO DIET EMAIL LISTS:

This article included MANY links to nutrition, raw diets, vitamin/mineral explanations, and BARF sites ... TOO many to publish here. If you are interested in further information, please check out the website at the start of this story to see the full article.

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being fed due to food processing / heating / refining; lack of synergistic vitamins / minerals / enzymes in the body, or malabsorption syndromes. Mineral deficiencies known to cause seizures include: Calcium, Magnesium, Zinc, Manganese, and Selenium. Using mineral supplements is a 'tricky business' and must be done with the guidance of a veterinarian or a canine nutritionist in order to correct deficiencies without creating dangerous imbalances. Unlike commercial or cooked diets, a well-balanced raw food diet allows the vitamins, minerals and enzymes in the foods to remain intact and available to 'do their job' in the dog's body.

Calcium: Hypocalcemia (low Calcium) can cause seizures because it affects nervous and neuromuscular systems. Calcium is essential for nerve impulse conduction. It plays a role in the release of neurotransmitters and activates some enzymes which generate neurotransmitters.

Magnesium: tops the list of mineral deficiencies that are linked to seizures. It works with Vitamin C, D, B6, Phosphorus, Calcium, and Protein and assists with the absorption of Vitamin C and Calcium. It is important for nerve function and required for sodium and potassium transport. Magnesium is a mineral found in specific fruits, vegetables, and essential fatty acids and cannot be adequately obtained through processed foods. One holistic vet stated that some forms of epilepsy respond to supplementation of Magnesium, Vitamin B6, and Manganese.

Manganese: is a co-factor in many enzymes systems and involved with many body functions, including maintenance of the nervous system. Manganese deficiency is suspected to play a role in epilepsy in humans. Processed and refined foods are deficient in manganese.

Selenium: plays a special role in the brain. At least one human study in epileptic children suggests that "Selenium depletion in the brain amongst patients with epilepsy constitutes an important triggering factor for the origin of intractable seizures and subsequent neuronal damage." Selenium deficiency is also linked to hypothyroidism.

Zinc: is necessary for the production of brain neurotransmitters. Vets recommend zinc supplements (in addition to others) for epileptic dogs. "Results of the Second National Health and Nutrition Examination

Survey, published in 1995, suggest that Zinc intakes are declining. This is likely due to lower meat and higher cereal consumption, processing methods which reduce Zinc content of food, and lower soil concentrations of Zinc."

DOGS HAVE DIFFERENT NEEDS

Raw diets offer the most bioavailable forms of protein and amino acids, enzymes, vitamins, and minerals that you can feed your dog. All of these dietary elements are synergistic with each other and important to the good health of our dogs. For dogs with seizure disorders, a quality diet supplying the finest quality and most bioavailable sources of the nutrients required for proper functioning of the nervous system will go a long way towards controlling or eliminating seizures. Just as all commercial diets are not created equal, all homemade diets (raw or cooked) are not created equal. An ill-planned / prepared homemade diet can create as many health problems as a poor commercial diet can. The advantages offered by a raw diet can only be gained if the diet is well-balanced to the needs of the individual dog. Older, working, and pregnant dogs, and particular breeds with certain diseases or health conditions require diet tailoring. Understanding your dog's individual needs is crucial in creating a diet that will yield positive health results. This is especially important for dogs with seizure disorders.

THE POSSIBLE CONNECTION BETWEEN GRAINS & SEIZURES:

1. The vitamins and minerals in grains have low bioavailability to the digestive tract. (Simply, grains offer little to no nutritional value to a canine diet).
2. Grains contain components considered "anti-nutrients" that can cause negative biological consequences (auto-immune problems, allergies, digestive, gallbladder and liver problems all of which can cause seizures). Certain auto-immune diseases (e.g. insulin dependent diabetes mellitus IDDM) increase in animal models when they are fed high cereal grain diets.
3. Grains have high phytate content which impairs mineral absorption (particularly relevant since magnesium, zinc, calcium and other mineral deficiencies are linked to seizures).
4. For canines, it is well documented that three of the most common food allergens are wheat, corn and soy, primary ingredients in many commercial dog foods. (Allergies are a cause of some seizures.)

5. In human epileptics, it is believed that the grains high in gluten content (like wheat, rye, oats) stimulate opioid receptors in the brain, making them more susceptible to seizures. If grains further "removed" from wheat (like corn and rice) are allowed in gluten free diets, the other issues listed here concerning grains in the diet would still exist.
6. Complex carbohydrates found in grains quickly turn to sugar in the body. (Since a dog's metabolism is considerably faster than ours, this might in turn mean that a quicker crash from a sugar "high" would occur. Hypoglycemia is another cause of some seizures.)
7. Unsupplemented canine diets of commercial foods high in cereal (grains) and vegetable proteins are likely to be deficient in amino acids. Taurine is the building block of all of the amino acids. (Deficiencies in taurine are linked to seizures / epilepsy.) Cereal grains are low in Essential Fatty Acids, important for neurological function.

If you are really interested in learning about potential problems of feeding grains, please do some reading and research. The link below is a **GREAT** overview of the potential problems grains can present in human diets – think 'canine' too when you read it. Remember that if this information applies to humans, who are more adapted to grains in their diet, how much more could it apply to our canines, who are not adapted to processed grains in their diets? And please keep in mind that not all grains are created equal. We need to understand the difference in whole and sprouted grains vs. processed grains, the various gluten levels in grains, etc. and how all of these factor in to digestion and potential health problems (for humans and canines).

http://www.mercola.com/1999/aug/8/truth_about_eating_grains.htm

Beyond this, many neurological complications may be associated with immune reactivity to antigens found in cereal grains. It is suspected that autoimmune processes are involved.

FEW GOOD LINKS SPECIFIC TO THE GRAINS AND CANINE DIETS:

http://www.barfworld.com/html/learn_more/nograin.shtml

<http://members.aol.com/addieloo/>

<http://www.b-naturals.com/spr99.htm>

<http://www3.sk.sympatico.ca/riverien/nutrigains.htm>