Hope for Healing Liver Disease In Your Dog

Fourth Edition Revised and Updated 2023

by Cyndi Smasal

Material for this book has been compiled from books I have read, articles I found on the Internet, and trial and error. I have made every effort to credit my sources. If I have made any omissions, I will gladly correct them once it is made known to me.

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This book is dedicated to my companion, best friend, and dog Norman.

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By Deb Forster, B.S., D.V.M.

"This is vital information that needs to be available for every pet-lover who has a dog with liver disease."

In my 20-plus years as a veterinary practitioner, I've treated many cases of liver disease, and I've followed both conventional and alternative methods of healing. In these pages, Cyndi Smasal has compiled an excellent guide to help treat liver disease in dogs, our best friends and companions. And, it's in a great format that will allow readers to download it off the World Wide Web.

I started working with Cyndi and Norman four months into her alternative treatment. I've never met a more dedicated pet owner. She became a student and is now a teacher of alternative veterinary medicine, nutrition, supplements, and homeopathic remedies. I have personally seen Norman benefit from her loving care, homemade dog food, and nutritional supplements.

The concept of a special diet for liver disease is not a novel one. But in this book, Cyndi addresses the topic from a very personal and truthful level. She has tried everything that could be helpful for her dog, much more than what she's listed on these pages. She's put all the results of her research into this easy-to-read, concise book that fills a tremendous need in the pet-lover community.

You will find her determination inspiring in addition to solid information about a complex disease. This book is by no means the answer to all of your dog's needs, but it provides a great start for treating your dog with liver disease in collaboration with a qualified veterinarian.

This is vital information that needs to be available for every pet-lover who has a dog with liver disease.

Deb Forster, B.S., D.V.M.

A Note of Caution

The material in this book has been written for educational purposes ONLY. It should not be regarded as veterinary medical advice. I am not a veterinarian. Please consult with an Integrative Veterinarian, Holistic Veterinarian, or person with a Doctor of Veterinary Medicine before applying what you learn from this book.

My approach to treating liver disease is alternative, holistic, and integrative. My approach has not been investigated or approved by any regulatory agency. Do not use this book as a substitute for treatment by a veterinarian. Rather, use this information in conjunction with veterinary care. Always discuss the use of alternative approaches like this one with your veterinarian before trying them.

I did not receive an enthusiastic response from my first veterinarian when I discussed this approach. So, you may want to consult with more than one veterinarian regarding the treatment that is best for your dog.

Ultimately, you are responsible for the care and treatment that your dog receives. I am not responsible for any adverse reactions or effects resulting from the use of the information contained in this book.

Introduction

By Donna M. Hilbig, M.Ed., L.P.C.

I have been privileged to witness the events described in this book, because of my acquaintances with both the author and Norman, the spunky Cocker Spaniel upon whom this book is based. In the following pages you, too, will sense the depths of the relationship between this dog and his human. From the beginning, it was obvious that he claimed her heart, and they belong to one another.

Being a "cat person," it was a foreign concept to hear someone say they have to go straight home after work, "because Norman is by himself." Seeing a dog sit and sleep in a person's lap in the same way a cat does was mind-boggling to me. But all it took was one incident of Norman having an irritation of his "third eyelid" to understand that these two were connected in a way beyond my sensory ability. There were tears of frustration, because Norman was suffering and Cyndi wanted to help him feel better. "He doesn't complain unless he's really feeling bad," she said. I went over to help as she gently rinsed his eye, and he was better. In time, I would see for myself that Norman truly is a very happy dog with a very loving personality.

Norman is also a very communicative dog. He smiles as he pants when he's happy. And he actually "frowns" when he realizes Cyndi is going somewhere but he's not invited. Granted, Cyndi hates having to leave him and has often fantasized out loud about taking him to work with her! So, when he's sick, it's very easy to tell. Norman just isn't his normal, happy, playful self.

When he was diagnosed with liver disease, it was almost as if he had already died. He was very uncomfortable from having a swollen belly, and Cyndi just couldn't stand to see him suffer. Amazingly, the swelling went down quickly. Then, something more amazing happened. The woman I knew as a very skilled Quality Assurance Engineer in the computer programming industry began to approach Norman's medical condition as if it were "defective software." She put her analytical skills to work overtime, believing that there was an eventual solution.

I was a witness to a miracle in progress as she tried one intervention after another. After each effort, she would develop a "new and improved" process. Through it all, Norman's blood tests just got better and better! Today, if it weren't for his debilitating arthritis, Norman would easily be mistaken for a two-year-old puppy. He is truly a special dog, and he has chosen a very special human with whom to share his life.

Even though Cyndi is Norman's "provider," he has given her just as much, if not more. Together, they have learned to love unconditionally and to roll on the ground just for the pure joy of it. Norman's philosophy of life is "smell everything, lick as if your life depends on it, wear your heart on your sleeve – then it's easier to get to when it's hurting, always express your feelings, and forgive every time you're asked." Sounds like a great way to live!

Chapter 1 – Norman's Story

"Blessed is the person who has earned the love of an old dog." — Sydney Jeanne Seward

It was close to Christmas 2001 and something inside me kept telling me that there was something wrong with Norman. I thought the worst. "It must be cancer. He's going to die, I just know it." I finally decided to face my worst fears and take him in to see the Vet. I took him to the same Vet he had been seeing for 8 years. The symptoms I described were: excessive drinking, accidents (overabundance of urine), vomiting, diarrhea (soft stools), and flecks of blood in the vomit. Dr. X did a blood test, came back and told me he had liver disease. I asked what the treatment was for liver disease and he said there really wasn't anything he could do. The next step was to determine how bad and how far along it was by doing an ultrasound. Norman had also been taking Rimadyl for arthritis pain in his hips and knees. Dr. X. told me to stop giving it to Norman since it could be harmful to the liver. So, I scheduled the ultrasound, stopped the Rimadyl, and started feeding Norman a prescription diet food for liver disease.

The next week Norman seemed to get worse. He swelled up like a balloon weighing in at 34 pounds. I thought he was going to pop he was so big. I took him in again to see if there was something that the Vet could do. A different Vet (Dr. Y) saw him and said that the fluid should not be removed and that the body would absorb it. The ultrasound was done while Norman was in this bloated state.

Update

The bloating is called ascites and was probably caused by the low-protein prescription diet that the Vet put Norman on. Low protein diets used to be the way liver disease was treated but now they realize that protein is needed. A high-biological value protein is needed unless the dog has high levels of ammonia in the blood. The liver cleansing diet is the safest diet for when your dog is first diagnosed.

The Vet who performed the ultrasound consulted with Dr. X and they decided not to do a biopsy because the liver was too small, there was too much fluid and the prognosis was not very good. Dr. X didn't see any point in spending more money on a dying dog.

I started taking Norman in to see either Dr. X or Dr. Y every week to check Norman's blood levels.

The last time I saw Dr. X he further diagnosed the ultrasound as cirrhosis. At this time, I asked Dr. X for prognosis and treatment options. He said he would probably live 14-30 days and that there wasn't a formal conventional medical treatment for cirrhosis. Just like humans, it was a slow and inevitable death. He said Dr. Y recommended a natural supplement (Milk Thistle) that she believed in but he didn't necessarily offer any real hope. Dr. Y shared with me that the liver is an organ that can rejuvenate but not if it's damaged

beyond repair. She ordered the Milk Thistle for me and we started giving Norman Milk Thistle and Vitamin E along with the veterinary prescription diet food for liver disease.

I went home and began to mourn over what seemed to be the inevitable death of my 10-1/2year-old cocker spaniel. I held Norman in my lap and hugged him like he could die tomorrow, and I prayed to God for a miracle.

"Lord, I thank you for putting Norman in my life. I know it seems silly to pray for a dog, but you know how special he is to me and how much I love him. So, I ask if it is your will, to allow him to live. And if it's not, I ask that you take him soon so he does not suffer. In Jesus' name. Amen."

With my prayers in God's hands, I began to do research to see if there was anything else I could do to take better care of Norman.

Hope for Healing

I started my research on my computer (back in 2002), searching the Internet. I found very little (Google was not what it is today), but I did find one article that gave me hope. It was called Sunny's Miracle Diet. Sunny's story seemed very similar to Normans. Sunny had all the same symptoms and using a natural home-cooked diet, Sunny was still alive after 6 months. This hope spurred me on to find out as much as I could about liver disease, cirrhosis, natural diets, and food remedies for liver disease. All the information I found was scattered, and one seemed to contradict the other. So, I continued to search and purchased all the books I could find on Natural Dog Diets and Natural Dog Care. One thing was becoming clear. The ONLY treatment for liver disease was through a radical change in DIET.

During the time I was collecting my data and doing research, Norman had been on a prescription diet food for liver disease. I started noticing that Norman's love for eating the new food was growing into what looked like a mad starving animal. He seemed to be hungry all the time and was always wanting more and more to eat. This concerned me, but it wasn't until I noticed Norman going to the extreme of actually eating his stool that I knew this wasn't good for him.

I decided to take a chance and made Sunny's Miracle Diet for him to eat instead of the prescription diet food. I didn't have all the information about natural diets at this time, so I didn't know that it wasn't the "perfect meal" for Norman. But, I thought it had to be better than the prescription diet food.

Norman loved the home-cooked meal and seemed to be very satisfied with it. Although I did allow him to eat more than I normally would, I didn't let him eat until he stopped on his own. He didn't seem to want to stop. But, I did allow him to eat several bowls of Sunny's Miracle Diet.

As I started compiling the research and learning more and more about Natural Diets, I found that none of the books had a "perfect meal" for Norman. I realized quickly that there was no sure-fire "perfect recipe" that I could follow. I was going to have to either hire a Nutritionist or learn what I needed to know and do it myself.

I was short on finances, and I didn't find a nutritionist that seemed to do special diets for liver disease, so I decided to learn for myself.

20th Anniversary Edition Update:

"We are in the midst of a food revolution." – Food scholar Marion Nestle

Ideally, you would talk to your veterinarian or go to a Veterinarian Nutritionist to get a custom-balanced diet for your dog. However, even after 20 years, it is hard to have an instructive conversation with our veterinarian about how to feed a nutritionally balanced homemade diet for a healthy dog, much less a dog with liver disease. There are many more options now for finding someone to help you formulate a diet that is "perfect" for your dog. You do not have to figure it all out on your own. There is an online directory of fresh food consultants who are filling the void, providing consultations to help create custom diets that are nutritionally complete. (see list of <u>Veterinarian Nutritionists and Fresh Food Consultants</u> in the resource section and online)

The rest of this book is a compilation of what I have learned after more than a year of caring for Norman. I include what I have tried, what I have learned, and what worked and what didn't. I hope that this book saves your dog's life and gives you everything you need to care for the dog that you love.

Update: The 20th Anniversary Edition contains much more about creating a diet for your dog. I've been formulating custom liver diets for 15 years and I'm passing on that knowledge to you in hopes that it will save you time and prolong the life of your dog.

I had nothing to lose, and the life of my dog to gain!

Since my veterinarian told me Norman was likely to live only another 14-30 days, trying a different food couldn't be any worse than doing nothing and allowing him to die. I decided I had nothing to lose, and I wasn't going to sit around and do nothing.

So, here's what I did:

- 1) Stopped using conventional medications! (antibiotics, pain medications)
- 2) Started dosage of Milk Thistle extract (Silymarin) to support the liver (150mg 1/day)
- 3) Started dosage of Vitamin E to help detoxification (400 I.U. daily)
- 4) Started dosage of Ursodiol to add bile acid to help digestion
- 5) Started dosage of Multi-Vitamin with antioxidants (1/2 of human Multi-Vitamin per day)
- 6) Stopped feeding prescription diet food for liver disease
- 7) Started feeding a home-cooked, basic natural diet with recommendations for liver disease
- 8) Started using distilled water

Three months later, I went in to get a follow-up blood test for Norman. I asked my veterinarian about the homemade natural diet and the recipe for Sunny's Miracle Diet. She

was not in favor of changing Norman to homemade food and stood by the prescription diet food. I told her I had already made the switch and was going to stick to it.

Update:

This is not meant to be a guide on what you should do for your dog. It's just a record of what I did for Norman. Now, 20 years later, I would not use a human multivitamin. Instead, I would use specific supplements that would support the liver.

Norman's Blood Test came back NORMAL!

She ran a full chemistry panel and complete blood count tests to see how Norman was doing. I also suspect she wanted to show me some deficiencies from feeding Norman a home-cooked diet to convince me to put him back on the prescription diet. The results came back that everything was NORMAL. After three months of a natural home-cooked liver-friendly diet and supplements and Norman's blood work was back to NORMAL!

Norman's liver was more than likely still damaged, but it was rejuvenating just like I hoped. My prayer had been answered. **Norman wasn't just living with liver disease, he had survived it!**

Once your dog is diagnosed with liver disease, they can never fully recover as if no disease had ever occurred. So, it was never an option for me in my mind to stop the home-cooked, natural diet and supplements.

My research continued as I searched for ways to improve Norman's diet.

I continued to find more and more information about liver disease (in humans and dogs) and how to treat it with all sorts of alternative treatments, including food remedies. I started compiling a list of all the foods that were "good for the liver" and anything that was "not good for the liver".

Norman's Next Crisis Led Me to Find a New Vet.

Several months into the natural home-cooked diet, Norman started having new symptoms. Norman's new symptoms included: vomiting up his undigested food in the middle of the night, waking me up to let him outside 2 to 3 times a night, having accidents if left alone for more than 4 hours, and diarrhea. At its worst point, Norman wouldn't eat, and his stool looked bloody. I took Norman in to see the Vet again and she kept him overnight to determine if he was having liver failure, or something else. She kept an IV in him with Vitamin B-12 in it all night, and in the morning I was there to feed him his natural home-cooked breakfast. He ate it up and we went home. Norman was better, but he was still having many of the same symptoms. He was waking me up at night, vomiting his undigested meal, and had occasional diarrhea. I was unhappy with the last visit with my current Veterinarian. So, I decided I needed some more help with Norman's diet and supplements. I wanted a veterinarian who would explain more to me about his condition.

I interviewed a Homeopathic Veterinarian who did not practice conventional medicine anymore. She opened my eyes to the world of Homeopathy. We spoke on the phone several times, and I tried some of her homeopathic remedies to help Norman with his upset stomach. But the end of this crisis came from due diligence on my part with careful notetaking and noticing all of Norman's behaviors and reactions after every meal.

I began my analysis by taking a scientific approach to determining what was causing Norman's reaction. My hypothesis was that something in his diet was causing or contributing to his upset stomach, gas, diarrhea, and vomiting. I just needed to figure out what it was. By this time, I had a very sophisticated diet consisting of a variety of meals, with several ingredients and supplements. In order to determine what the culprit was, I was going to have to change only one variable at a time and see if it had any effect on his system.

Update

I should have started with a simple diet like the ones I have listed. At this point in the process I was experimenting. Whenever you add anything new (food or supplements) it should be given on a trial basis to test for tolerance before adding anything else.

I did this by sticking to one meal (same ingredients) all day for several days to make sure that it came out (in the stool) okay. It takes 12-16 hours for a meal to go all the way through Norman's system from feeding to stool. I know this through giving distinctively different meals, then watching and timing when they came out. For example, carrots are not always completely digested. Feeding carrots in one meal and not in the next will allow you to tell when that meal was digested.

For 3 days I made notes on everything that Norman did, when he did it, how he did it and what it looked like. I removed one item from his diet at a time and waited at least a day before removing the next item. Finally, I found the culprit. Rice! Once I removed rice from Norman's diet everything went back to normal again. You must stick with the same meal that works for several days to make sure that everything is truly back to normal.

Here's a list of things to watch and note if you are trying to identify problem foods.

Recipe or Meal Ingredients Feeding Time Urination Time Bowel Movement (potty) Time Stool Color, Consistency and Volume Behaviors (e.g. sleeping, licking on a part of body, walking around frequently, begging, eating strange objects like grass or feces,) Timing of Behaviors (within relation to eating. E.g. 1 hour after eating) Supplements given Timing of Supplements given (with or without food and time of day) Laying (sleeping) spots

		DATE:		
	ROUTINE	TIME	NOTES	
MORNING	Wake-Up Time	6:30am		
	Morning Med Time	7:00am		
	Breakfast Time	7:15am		
	Potty Patrol Check	9:35am	brown, solid, normal	
NOON	Arthritis Med Time	11:00am		
	Lunch Time	11:15am		
	Ursodiol	Yes		
	Lunch Supplements	11:15am		
	Potty Patrol Check	11:35am	brown, solid, normal	
AFTER- NOON	Arthritis Med Time	3:00pm		
	Dinner #1 Time	3:15pm		
	Potty Patrol Check		none	
EVENING	Arthritis Med Time	7:00pm		
	Dinner #2 Time	7:15pm		
	Potty Patrol Check	7:30pm	brown, solid, normal	
NIGHT	Night Supplements	9:00pm	usual + calcium without food	
	Snack (optional)	10:00pm		
BEFORE BED	Bedtime Med Time	9:45pm		
	Potty Patrol Check		none	
	OTHER NOTES	Slept all night in bed No barking during the day No vomiting in the morning Ate Chicken, Veg., Pasta Stew Added Calcium to night supplements		

Here's an example of one day's notes on Norman.

Since I was still improving Norman's diet, I often ran across something else that Norman could not tolerate. I use the same approach when trying new items and to determine what is causing gas, stomach, and gastrointestinal problems. I have found that, when liver disease is

present, gastrointestinal problems frequently occur when something new is not tolerated in the diet.

Update

I am finding more information that says that dogs who experience liver disease associated with NSAID's that malabsorption problems seem to be an overwhelming issue. Possibly due to scarring in the GI track.

20th Anniversary Edition: There are now food sensitivity tests that can give you specific food ingredients to avoid so that you don't have to do so much trial and error. (see list of food sensitivity/intolerance tests in resource section and online)

Soon after this crisis, I received a call from the person who would become Norman's Veterinarian. I had found a website for Holistic Veterinarians and e-mailed one that was in my area. I had called her during the crisis and she got back to me after it was over. When she called, I was pretty hard on her. I asked her a lot of questions and explained Norman's history briefly. I told her I was looking for a veterinarian who would take other alternative treatments into consideration and work with me on Norman's diet and supplements to help me take the best possible care of him. Dr. Forster answered all my questions and we scheduled a visit for her to come over to my house and take a fresh look at Norman's case. To do this, I needed to get all of Norman's medical records from his previous Veterinarian. During our consultation, Dr. Forster gave me great insight into what all the blood test results meant and the sonogram diagnosis. This fresh look at Norman's history was very educational and enlightening for me.

Notes on Blood Test Results

Blood test results should be used to look at the BIG picture. Never take one value by itself. Although some are very specific to liver disease, they should be looked at in relation to all other values. Also, keep in mind that blood test numbers are specific to the machine used to perform the test and should not be compared. Instead, compare the results to the reference range. "Flagging ranges" identify results that are out of the reference range and are usually printed in bold. Flagging ranges are just a guide. Consult your veterinarian for specific medical interpretations.

Liver Specific blood tests:

ALT – is a liver-specific leakage enzyme that is high when the body is losing cells. AST – occurs in the liver, determined in conjunction with other liver tests (ALT, GGT). Bilirubin – is formed in the liver before excretion in the bile. Cholesterol – is produced in the liver and synthesized into bile acids. Low levels may indicate liver disease. GGT – is an enzyme originating from the liver and is used in conjunction with other liver tests. Potassium – low levels may indicate chronic liver disease.

Update

Additional blood test:

ALB – Albumin is a protein made by the liver – low levels may indicate liver disease and ascites isn't far behind. This can also be caused by a low protein diet which is NO LONGER recommended.

Blood work AND urine analysis are both important. Many things can show up in the urine before you find evidence of trouble in the blood.

For example: Bilirubin is a waste product from the breakdown of old red blood cells. It is normally removed from the blood by the liver and becomes part of the bile. Its presence in the urine may be a sign of liver disease.

Find the Cause, don't just Treat the Symptoms.

One of the most important first steps in treating liver disease is finding the cause. Without knowing the source of the problem, you are only treating the symptoms. Dr. Forster's initial consultation and review of Norman's history not only helped me understand his condition, but it also identified several red flags. Those red flags were then looked at with 20/20 hindsight (perfect vision) and used to determine the best course of treatment.

A Review of History reveals Red Flags.

The first major red flag was that 3 months before Norman was diagnosed with liver disease, I had taken him in to have his teeth cleaned and annual vaccinations. The blood test that was given before the teeth cleaning showed that his test for liver disease (ALT) was normal, but he was Anemic (low red blood cell count).

Update

Vaccinations should never be administered at the same time as surgery. It is against the prescribing label for any vaccine.

During and after this visit, Norman's body was bombarded with drugs and chemicals.

- He was injected with pain medication to remove a small growth on his ear.
- He was given anesthesia for the dental cleaning.
- He was given all of his vaccinations (Rabies, DHLP/Parvo).
- He was given antibiotics for 20 days after the cleaning.
- He continued taking Rimadyl for Arthritis pain.
- He continued taking monthly Heartgard tablets to guard against heartworms.
- He continued taking monthly Flea & Tick control medication.

If Norman's liver was already damaged, all of this medication pushed him over the edge. The anemia could have been a sign that he was not in the best condition to have all of this done at once. The next red flag was his gingivitis. Bad teeth and gums produce toxins that are harmful to the liver. And, it's a general sign of bad health.

Finally, I couldn't help but kick myself for giving him NSAID painkillers (Rimadyl TM) for his osteoarthritis on a daily basis for over 2 years (without checking liver values on a regular basis).

This reminded me of his not-so-severe symptoms of loose stools, constant drooling, and gas, which I had ignored for years.

Of course, I was also feeding him the "premium" commercial pet food (with rice). I had taken him in for gas and a sensitive stomach 7-years ago and never even considered that the pet food was the problem. I had been taught to feed Norman "the good pet food" and thought I was giving him the very best available.

Update 20th Anniversary Edition: the fact that "premium" commercial dog food is not the best food for the health and longevity of my dog, changed how I would feed all my dogs for the next 20 years and would put me on a path to learn everything I could about pet food, natural home-cooked diets and ultimately how to formulate complete and balanced home-cooked diets.

I Didn't Know!

I feel like I didn't know anything before all of this happened. I didn't know to ask questions. I didn't know medications could have harmful side effects. I didn't know commercial pet food could contain toxins. I didn't know the bad breath, drooling and gas were signs of poor health.

Well, now I know. So, I question everything now, and I do my research. I'm educating myself and, hopefully, educating other well-meaning pet parents to do the same.

My Conclusions

I can't say for sure what caused Norman's liver disease. But, I've come to the conclusion that it was probably caused by a combination of: long-term use of NSAID painkillers, untreated gingivitis, food sensitivities (rice), over-vaccinating, old-age, and poor diet (not-so-healthy commercial pet food), combined with a dog breed that tends to have liver problems.

Now that we knew what caused the liver disease, Dr. Forster helped me formulate the best treatment for Norman.

Dr. Forster's Prescribed Supplements and Vitamins.

Dr. Forster followed up by doing her own research and consulted another Holistic Veterinarian and Internist to give me additional information. She recommended other supplements.

- Taurine 500mg 2x/day (for both liver and cognitive); not if gall bladder involvement
- L-Carnitine 500mg 2x/day (for both liver and cognitive)*
- Alpha-Lipoic Acid (ala) 100mg 1x/day (for cognitive)*
- Vitamin E 200 mg + general antioxidant formula d-alpha form not dl-alpha
- Double dose of Milk Thistle (from 150mg a day to 150mg 2x/day)
- Add Turmeric (an herbal supplement) (1 tsp daily) to his food start small at first
- Canine Plus Multi-Vitamin with antioxidants from Vetri-Science
- Prozyme Digestive Enzymes instead of human brand

Update

Here are some additional supplements and medications that may be prescribed:

- Denosyl the canine version of SAMe
- Denamarin combination of Denosyl and Silymarin (should not be given in addition to Denosyl)
- *Lactulose especially if a liver dog is showing cognitive dysfunction or any neurological sign like pacing, difficulty standing, head pressing, getting lost in corners, vocalizations
- Psyllium husk powder (or Metamucil®) does the same as above and can be given alone or along with Lactulose.
- Antibiotics to reduce ammonia-producing bacteria in the GI tract.

Notes on Supplements and Vitamins: I list brand names along with contents when available so that you can find your own source of these supplements. There is a lot of variability in different brands, and sometimes they may not contain what is claimed on the label. So, stick with well-known and proven brands. I am not advertising for these items, only for their effectiveness in treating liver disease.

A complete list of supplements with recommended dosages has been compiled for your use (table on supplements).

Since I started feeding Norman homemade dog food, specialized for his liver disease, and added the additional supplements and vitamins, he has been sick four times. These were related to diet or arthritis. Each time he got sick I learned something new about how his diet (intake) affects his system.

Trial and Error – Adjusting Diet to Norman's Needs

I wish I could tell you that developing the perfect diet for Norman was easy and that I got it right the first time. But, that's just not the way it happened.

Instead, I would develop a recipe, let Norman eat it for several days or weeks, and watch to see how he did on it. Sometimes the recipe would be great for a few days, and then he'd be sick again. I'd go back to the drawing board to find out what went wrong and try again.

- I've gone from preparing each meal from scratch using strictly all "natural" ingredients to canned food from a health food store, and everything in between.
- I've been an extremist where I made each meal using fresh vegetables and dairy protein.
- I've been economical where I made large batches of cooked food and froze it for use over several weeks.
- I've been lazy and used healthy canned food.
- I've used hot water to heat his food, and I've used the microwave to heat his food.
- I've used raw beef, turkey, liver and bones, cooked chicken, beef and liver, tofu, soy granules, yogurt, cottage cheese, potatoes, yams, pasta, couscous, millet, barley, oatmeal, fresh fruit, dried fruit, fresh vegetables, frozen vegetables, and canned vegetables.
- I've tried healthy commercial food like Halo Canned Food and Sojo grain mixes that go with raw meat.

I don't know if I can say, "I've tried it all." But I've definitely tried many different recipes over the last year. And, I've learned a lot along the way.

Now you have the benefit of learning my lessons without having to go through it yourself.

The rest of this book is the compilation and presentation of all my research. The goal is that you will be able to digest this information quickly and start putting together your own home-cooked diet with supplements for your dog. As I found out with Norman, there is no "perfect diet" for all dogs. That is the main reason the prescription diet for liver disease did not work for him. It is a one-size-fits-all recipe. You may need to do your own experiments with the ingredients and recipes that I give you to find what works for your dog.

It's important to note that homemade diets can be nutritionally incomplete and unbalanced. Because of this, many veterinarians do not recommend them. Therefore, it's important to develop a plan to add the supplements that are right for your dog. Like a good multivitamin and calcium supplement. **The 20th Anniversary Edition of this book** includes many supplement options for you to choose from. You can also consult with a pet nutritionist to develop a custom homemade diet for your dog's specific needs. (There is <u>a list of nutrition</u> <u>specialists in the appendix</u>.)

Over a year and a half after Norman's initial diagnosis, he is doing great. The last blood test a month ago came back with everything still normal. (See Appendix C for a complete history of test results)

Final Note – Treating Pain Associated with Arthritis

Norman also has arthritis in his hips and knees. This is why he was on pain medication for so long. Now that he has a damaged liver, he can't have any of the typical pain medications.

About nine months after I started Norman on a healthy diet and supplements for liver disease, he gave me a scare. Norman had been a ravenous eater and very excited around mealtime. But now he was more than just excited. He was anxious, restless, drooling, panting, crying (barking), not sleeping for more than 2 hours at a time, inhaling his food, pacing around the house, hunting for cat poop outside, and eating it.

I tried everything. I tried various homeopathic remedies for gastritis. I changed his diet, increasing and decreasing the amount of protein and fat in his food. I gave him more Vitamin C and B12. I gave him Bach's Rescue Remedy. I gave him Gas-X. Nothing worked.

After 5 days of trying everything I knew to try, I took him in to see Dr. Forster. We did blood tests and everything was still normal. She determined that he was probably in pain. But we didn't know why. We decided to try a pain medication called Torbutrol.

I gave him the medication and fed him as usual. I left him alone for a couple of hours and when I returned he had urinated and soiled the house. He was lying on the floor as if he couldn't get up. His mouth was dripping wet from panting constantly. His back legs were so weak he could barely stand to potty. He was limping on his back left leg. He was so restless he wouldn't sit or lie down. He just kept walking around or standing with his head in a corner.

Update

This was probably a drug-induced reaction. Torbutrol is not the best remedy for a dog with liver disease. Dr. Forster was trying to alleviate his pain and given his blood tests were normal it was worth a try.

I later found out that his reaction could have been symptoms of Hepatic Encephalopathy (HE) and he could have been given Lactulose or Metamucil® which is used to treat HE.

I called Dr. Forster and described his condition. She offered to come over (at 9:30 pm) but said, even if she did, there wasn't anything she could do until morning at the clinic. She didn't think it was life-threatening, but I had never seen him act this upset before. I was a scared, frantic mother afraid this was going to be the end for Norman. The best thing she told me was to get control of my emotions because my emotional state was affecting Norman.

She was right. I was an emotional basket case! I was so worried he was going to die I worked myself up into a panic. I immediately prayed for peace and Norman's health.

Norman and I finally went to bed, but it was the longest night of my life. Norman got up every couple of hours, and I got up with him. Finally, at 7:30 am we went to see Dr. Forster at the clinic. She worked Norman and me in as soon as possible. He was still acting the same. She said he looked like he was in pain. She kept him at the clinic to do x-rays and other tests to figure out what was causing the pain.

I left him there and went off to take care of myself. When she had the test results back, she called me to tell me why he was in so much pain. His back hip has severe Osteoarthritis, irregular joint surface, and severely calcified discs. At his age and condition, surgery was not an option. She recommended that I try acupuncture for the pain.

I took Norman for six acupuncture treatments but, ultimately, I found diet change and homeopathic remedies for arthritis and pain worked best to keep the pain under control.

Without homeopathic remedies for arthritis pain and a healthy diet, I would have had to put Norman to sleep. He was in a lot of pain. But after homeopathic remedies he was fine. He still has a limp. But he has no signs of anxiety, crying (barking), restlessness, or panting. He sleeps throughout the night, sleeps most of the day and seems to be comfortable. He doesn't hunt for cat poop anymore and waits patiently to be fed.

It WORKS!

I am convinced that alternative treatments for liver disease and arthritis in the form of diet, supplements, and homeopathic remedies WORK. I wouldn't be writing this book if they didn't. I know that I would NOT have had Norman with me for an additional 2 years. I wouldn't be recommending them to you if I didn't believe with all my heart they are safe as well as good for your dog.

I hope you find the answers you're looking for or at least the hope to keep looking for a way to help your dog heal. I know that if you love your dog as much as I love Norman that you will want to know everything you can do to keep him at your side for as long as your dog isn't suffering.

I pray that you have as much success with your homemade healthy dog food and supplements as I have. I encourage you to ask your veterinarian questions. Don't give up without trying. And take good care of yourself and your dog. You'll feel better knowing you did everything you could for your dog.

Update

At the writing of this chapter, Norman was still with me and had no problems with liver disease. Ultimately it was his arthritis that continued to get worse that had me send him over the Rainbow Bridge 2 years later. You can read more about this in the final chapter.

Chapter 2 – Liver Disease & Cirrhosis

"If you do not hope, you will not find what is beyond your hopes." – St. Clement

Liver disease and cirrhosis are difficult to explain. This is my basic understanding of the disease, but it is far from complete. I gleaned this information from several sources. You need to have a basic knowledge of what liver disease is, so you understand how it will affect your dog, and so that you can better care for your dog.

Liver Disease -- What is it?

At the time of writing, liver disease was the fifth leading cause of non-accidental death among dogs. It is a very serious condition. Since the liver is the largest and most important organ in the body, the body becomes toxic and starts to deteriorate if it's not working properly.

The liver is a complex organ. It filters your dog's entire blood supply many times each day. It processes everything that the body is exposed to, both internally and externally. It performs many vital functions, including detoxifying the blood of drugs and poisons; removing ammonia and other wastes from the blood; manufacturing blood-clotting factors; and synthesizing enzymes, proteins, and metabolites.

The liver has a phenomenal ability to regain function and is believed to be capable of complete regeneration. When liver disease is identified early on, there is a chance of complete recovery. However, early diagnosis and treatment of liver disease is extremely difficult. The liver can perform its function without discernible changes in blood analyses with up to 75 percent of it affected by the disease. This means the disease is usually well-advanced, and possibly untreatable before any symptoms are noted.

Liver disease is a catch-all term that applies to any medical disorder that affects the liver. There are many different specific and non-specific diseases of the liver. Your veterinarian will need to do further diagnosis to determine the cause and best treatment. Because of the complexity of the liver disease, I am going to cover it using a very abbreviated bullet format. I will keep the rest of this chapter as simple as possible, sticking to the most important points.

Liver Disease -- Diagnosis

Here is what you can expect your veterinarian to do to diagnose your dog's specific form of liver disease. (See Diagnosing Liver Disease chart in Resources)

- Examination to identify the specific signs of liver disease.
- Consultation with Vet (most important) to get a full history (when, where, why, how, etc.) and more to determine when the liver disease started and what could be causing it, so that whatever's causing it can be stopped.

- Blood Test to check for anemia, other organ abnormalities, the health of the bile system, infections, electrolyte imbalances, digestive enzymes, blood parasites, blood proteins, blood sugar (glucose) and liver enzymes.
- Pre- and Post-Meal Bile Acid Test to compare the two blood levels (pre and post meal) allows the Veterinarian to see how well the liver, bile ducts, and blood flow to the liver are functioning. Bile acids are removed from liver (portal) blood by the liver cells. If the liver cells are not functioning well, the bile acids remain in circulation and enter the body's (systemic) blood supply where they are measured by this test. If the dog has jaundice and other liver enzyme elevations you already know the liver is not functioning properly in which case Bile Acid tests are not needed. However, the comparison of the results may be somewhat diagnostic for shunts, gall bladder obstruction, etc., in themselves.
- Ultrasound to visually inspect for scar tissue, cancer, abscesses, and abnormal blood supply, to determine what percentage of the liver is affected and determine the size and density of the liver, gall bladder and bile system. This is also used to evaluate other organs that may be causing secondary liver disease (pancreas, adrenal glands, kidneys)
- Biopsy to give a microscopic perspective to ascertain a diagnosis, the actual conditions of the liver cells and prognosis to better determine the appropriate treatment. This is not something to rush into if you are only dealing with elevated liver enzymes, or if you know what caused the problem with the liver (i.e. drug reaction, Sago Palm poisoning, Cushing's Syndrome, thyroid, gall bladder, pancreatitis)
- Urine Analysis to look for infection, protein, bilirubin

Liver Disease -- Treatments

There is a wide range of treatments for various liver diseases. Your Vet will be able to recommend the best treatment. Here are the basic points for the treatment of liver disease.

Conventional Treatment

At the time of the original writing of this book there were no conventional medications that actually cured liver disease. Since then a new supplement called Denamarin is commonly prescribed to treat liver disease. Denamarin contains two supplements that support the liver – S-adenosylmethionine (SAMe) and Silybin which is an extract from Milk Thistle.

In many cases corticosteroids are given to decrease inflammation, scarring, stimulate the appetite and make dogs feel better. However, corticosteroids can actually cause further liver damage so I would question any Veterinarian that wants to give steroids to a dog with a damaged liver.

Antibiotics are also commonly used if there is an infection or even if there is a risk of a secondary infection. This should also be questioned before giving them. Does your dog really need this? These drugs must be processed through the liver you risk further liver damage.

In cases where there is a high level of copper in the liver, Penicillamine and zinc acetate are usually prescribed.

In many cases, there is no specific treatment for liver disease. Instead, the treatment is mainly supportive and symptomatic, such as administering subcutaneous (IV) fluids to prevent dehydration because the dog is not eating or giving medications to control vomiting.

In addition, these are the common conventional treatments:

- Identify and remove all toxic drugs or agents, which may potentially hurt the liver.
- Rest and confinement to allow the body time to heal the liver, reduce discomfort, and reduce physical and mental stress.
- Change diet to "get down to basics" and provide all necessary nutrients, which may be lost due to liver processing failure, being careful not to over-tax the liver with large amounts of food. (Usually done with a prescription diet dog food.)
- Control ascites and water retention with reduced sodium and by feeding adequate amount of liver friendly proteins to prevent low serum albumin levels. When ascites is present, treatment is usually with a diuretic such as Lasic or even draining the fluid from the stomach.
- Add Vitamin and Mineral supplements like vitamin K to help control bleeding disorders and vitamin E to help remove free radicals and prevent further oxidative injury to the liver.
- Deal with other medical problems as they come up. Deal with each separate problem both individually and as part of the whole diseased entity with regular trips to the Vet.

Natural, Holistic, Complementary and Alternative Treatments

- Dietary Management
 - Discuss nutritional needs and supplements with your Vet before changing the diet and adding supplements to make sure you are doing no harm (e.g. high protein with concurrent end-stage kidney disease could cause kidney failure).
 - Change to a healthy homemade diet with high-quality and easily digestible protein, which will not produce high levels of ammonia during digestion, and high levels of carbohydrates with at least 6% of essential fatty acids.
 - Adjust diet to add food remedies that support liver function.
 - Add a high-quality multi-vitamin with minerals and antioxidants.
- Add Milk Thistle, Vitamin E, Selenium, SAM-e and other supplements that support liver function (as recommended by your Holistic Veterinarian).
- Add homeopathic remedies or natural herbs that help detoxify the blood.
- Add digestive enzymes to diet to aid in digestion when the GI track is impaired.
- Add probiotics to diet when using antibiotics and to help support the GI track.
- Remove all toxic chemicals from the environment, including the diet, pesticides, chemical treatments and medications.
- Treat the whole system, including new problems as they come up.
- Perform regular checkups at home and see your Vet regularly to monitor progress and check blood and urine levels.

Liver Disease -- Causes

- Use of some drugs such as NSAIDs (Non-Steroidal Anti-Inflammatory Drugs, cortisone, anticonvulsants, steroids, some antibiotics, anesthetics, parasite control drugs, chemotherapy drugs and acetaminophen. There are thousands of chemicals that are toxic to the liver. Here is a list of the most common toxic drugs that have been reported to cause liver disease:
 - o NSAID's (pain management and arthritis)
 - Rimadyl (active ingredient: carprofen)
 - Deramaxx (active ingredient: deracoxib)
 - Previcox (active ingredient: firocoxib)
 - Metacam (active ingredient: meloxicam)
 - Galliprant (active ingredient: grapiprant)
 - Thiacetarsamide (heartworm treatment)
 - o Ketaconazole (fungal treatment)
 - Tylenol (acetaminophen)
 - o Glucocorticoids (cortisone)
 - o Anthelmintics (de-worming medication)
 - o Parasiticides (flea, tick, and de-worming medication)
 - Phenobarbital and Primidone (epilepsy medication)
- Exposure to high levels of toxic chemicals like insecticides, lead, phosphorus, selenium, arsenic, and iron.
- Toxic plants and mold such as blue-green algae, mushrooms, lilies, and ragwort to name a few.
- Other diseases, viruses, and infections like hepatitis, heartworms, and infections elsewhere in the body; most commonly dental disease, chronic skin and ear infections.
- Liver shunts
- Cancer (neoplasia) which starts in the liver or cancer coming from elsewhere.
- Physical obstruction of the bile ducts caused by liver flukes, tumors, pancreatitis, or gallbladder stones
- Biliary tract disorders
- Certain breeds of dogs are prone to genetically inherited liver disease (female Doberman Pinschers, American and English Cocker Spaniels, Bedlington Terriers, West Highland White Terriers).
- In-breeding
- Severe trauma to the front abdomen that happens most commonly when a dog is hit by a car.
- Over vaccinating
- Birth defect or abnormality of the liver
- Poor diet

Liver Disease -- Common Symptoms

- Vomiting with or without blood.
- Diarrhea with or without blood.
- Eating unusual things.
- Frequent urination and increased water intake.
- Depression or lethargy doesn't want to play anymore, lays in a spot away from you and your family.
- Loss of appetite or ravenous appetite.
- Orange urine.
- Pale gray stools or orange/yellow stools.
- Jaundice the whites of the eyes, skin, and gums turn yellow.
- Chronic weight loss or wasting.
- Ascites swollen belly filled with fluid.
- Severe neurological signs behavioral changes, seizures, aimless pacing or circling, head pressing. (May be associated with mealtime.)
- Unexplained bleeding or prolonged bleeding (e.g. after nail trimming or drawing blood).

Cirrhosis of the Liver

Cirrhosis is the final stage of liver disease. It is when the liver cells die off and turn into scar tissue. This condition is irreversible. The only treatment option is dietary care. The liver can still function with up to 70-80 percent of the liver affected. Cellular regeneration is not possible once the tissue is scarred. The only hope is to keep the part of the liver that remains as healthy as possible.

Chapter 3 – Healthy Homemade Dog Food for Liver Disease

"Let food be thy medicine." - Hippocrates

Healthy Dog Food Basics

A healthy diet is the cornerstone for treating canine liver disease. This section covers the basic food groups (macro-nutrients) in the Healthy Homemade Dog Food Recipes and how they should be used, or not used, in the treatment of liver disease.

Nutrient Categories

Protein

Liver-friendly proteins must be of high biological value and highly digestible, meaning they can be easily absorbed and used by the body. Some examples of high-quality proteins are wild white ocean fish such as pollock, haddock or cod, low-fat cottage or ricotta cheese, plain low-fat yogurt, eggs/egg whites, soy, skinless boneless chicken and turkey.

Normal amounts of protein should be fed to your dog unless your dog has a shunt, or your Vet recommends protein restriction because of obvious signs of protein intolerance or Hepatic Encephalopathy (HE). The liver needs protein for it to regenerate so prematurely restricting protein could have a detrimental effect on healing.

If your dog is showing signs of protein intolerance then dairy-based proteins like cottage cheese, and yogurt are recommended.

Some protein sources that should be avoided or limited are red meat (such as beef and pork), organ meat (such as liver and kidney), beans and legumes.

Red meat and organ meat should be avoided in dogs with liver disease or shunt because they are high in copper and protein, both of which can cause further damage to the already weakened liver. Copper is difficult for a dog's body to excrete when suffering from liver disease, leading to copper toxicity and potentially fatal consequences. Protein, on the other hand, breaks down into ammonia which can affect brain function if levels become too high, which could result in blood toxicity leading to fatal brain swelling (HE).

Beans and legumes should be avoided in dogs with liver disease or shunt because they are high in protein, purines, fiber and phosphorus. Protein can increase the levels of ammonia in the blood which can be toxic to the brain and cause HE. Purines form crystals and stones in the urinary tract of dogs with liver disease or shunt. Fiber interferes with absorption of nutrients and medications, while phosphorus can worsen kidney function.

Fish

Wild white low-fat ocean fish such as pollock, haddock or cod are complete proteins and I recommend this as the first protein source for cleansing the liver.

White ocean fish contains the appropriate amino acids so the liver does not have to break this protein down any further so that translates to less work for the liver and no deficiencies.

Dairy Products

Plain natural yogurt, low fat cottage cheese or ricotta cheese are good sources of protein, which do not produce high levels of ammonia during digestion. Watch out for lactose intolerance! If your dog has diarrhea after eating a meal with a milk-based product, that's a good sign that he's lactose intolerant and you should omit milk products from the diet or try lactose free products.

If your dog is retaining water (ascites) look for low sodium options. (Especially low sodium cottage cheese)

Eggs

Eggs are another excellent source of protein. If you use eggs as a source of protein, be sure to use eggs that come from free-roaming nesting hens. Egg whites provide a good source of albumin protein which is important in the prevention of ascites. Eggs in my opinion are one of the best sources of protein for dogs.

Meat

Raw meat is usually the recommended protein source of natural diets for a dog. However, **<u>Raw</u>** Meat is NOT recommended. If your dog will not eat milk-based protein, then another alternative is to feed high quality cooked (baked) chicken or ground turkey.

After your dog has recovered from the initial stages of Liver Disease and you are in maintenance mode you can give them cooked chicken, and on occasion high quality lean ground turkey unless your dog has a shunt or is showing signs of Hepatic Encephalopathy (HE).

Soy

Soy is an alternative protein source for dogs with liver disease or shunt because it is gentle on the organ, highly digestible, low in purines and a good source of antioxidants. Soy protein is growing in popularity with people, which makes it easier to find for your dog. It is important to **choose organic, Non-GMO, plain or fermented soy products** as these are less likely to exacerbate the condition. Soy should be organic or Non-GMO because most non-organic soy is genetically modified and contains high levels of glyphosate, a herbicide that can be harmful to dogs. Glyphosate can cause cancer, leaky gut, and destroy the good bacteria in your dog's gut. Soy provides essential nutrients without increasing levels of ammonia or uric acid which could be harmful for a dog's already weakened liver.

Is soy safe? Soy is on all the "No Soy, No Wheat, No Corn" grain free dog food list. Dr. Pitcairn addresses this in the latest edition of his book *The Complete Guide to Natural Health For Dogs and Cats.* In the book he says "the likely culprit [of soy related problems] is overuse of soy products or soy-fed animal products that have been genetically engineered and

sprayed with herbicides. Many people and animals improve, especially regarding GI symptoms on GMO-free diets. So, unless your dog is clearly allergic, go ahead and use soy products like tofu, tempeh, and even textured soy protein, as long as they are organic or certified GMO-free."

Which type of soy product is best? The most common soy-based protein is tofu. The firmer tofu varieties make a great substitute for meat. Sprouted tofu is the way to go if you're concerned about anti-nutrients. Picky dogs seem to prefer sprouted tofu. Textured vegetable protein (TVP) is made from soy flour and has a texture similar to ground beef. It is usually sold in dry form as granules, chunks, or flakes and needs to be rehydrated with hot water or broth before use. TVP is a cheap, versatile and convenient source of plant-based protein.

Personal Note: One of the first liver friendly meals I made for Norman consisted of soy granules, eggs, broccoli and oatmeal.

Fats and Fatty Acids

Dietary fats are beneficial to liver patients because they have a protein-sparing effect, reduce glucose intolerance, increase the fat-soluble vitamin absorption, enhance palatability and are an important source of energy and essential fatty acids. A low fat diet is not always necessary in the liver diet.

In the past, low fat diets were recommended for dogs with chronic liver disease, but research has shown that encephalopathic short chain fatty acids are derived from fermentation of soluble fiber in the large bowel, rather than dietary fat. However, low fat diets are still recommended for dogs with pancreatitis, complete biliary obstruction, cholestasis with severe steatorrhoea, and primary hyperlipidaemia.

If your dog has a liver shunt, a low-fat diet may be beneficial but should not compromise the quality or quantity of other essential nutrients. The liver processes fat and can cause problems if the dog consumes too much.

Omega Fatty Acids are essential to keep your dog's hair and skin healthy, boost their immunity, and aid organ function. A typical natural healthy homemade dog diet includes meat which provides fats. However, a liver diet doesn't usually have enough meat, so omega fatty acids are supplemented, and some dogs may struggle to digest these fats. To alleviate this issue, consider adding a digestive enzyme to their diet that contains pancreatic and pancrealipase enzymes. This will help break down fats in the stomach and keep their digestion running smoothly.

Use these Oils and Omega fatty acid supplements: (as specified or required to balance fatty acids in diet)

- Wild Salmon Oil (certified organic and tested for purity to avoid mercury)
- Cold Pressed Flaxseed Oil (can help decrease uric acid)
- Krill Oil (sustainably harvested and tested for purity)
- Cold Pressed Hemp Oil (organic, Non-GMO, and THC-free)
- Extra Virgin (unrefined) Coconut Oil

AVOID these Oils and Omega fatty acid supplements:

- Cod Liver Oil (most brands are contaminated with mercury or PCBs that are harmful to liver)
- Farmed Salmon Oil (or generic Salmon Oil that does not say "Wild Salmon")
- Generic Fish Oil (contaminated with mercury or PCBs)
- Canola Oil (causes copper accumulation, highly processed and contains GMOs)

Notes on Flaxseed Oil: Don't cook with flax oil! Never purchase flaxseed oil off the shelf; always purchase refrigerated and keep it refrigerated. Flax oil should never be allowed to reach room temperature. Flaxseed oil is an excellent source of omega-3 fatty acids.

Notes on Fish Oil:

- **Don't overdo it with added fish oils.** Too much fat is hard on the liver. It could increase the risk of bleeding due to its anti-clotting effect. It could interfere with some medications. It could cause GI upset or diarrhea.
- Consider using both fresh whole fish and fish oil to give your dog a full array of healthy fats.
- If in doubt, leave it out until you can consult with a nutritionist.

Coconut Oil is a healthy medium-chain triglyceride (MCT) that is easily absorbed and metabolized by the liver. However, it could cause GI upsets; increase the risk of pancreatitis; or interfere with some medications. If you use it, start small and increase gradually.

Carbohydrates

High levels of high-quality, highly digestible carbohydrates are needed to supply energy. Carbohydrates like sweet and white potatoes or pasta are recommended instead of grains. Vegetables are a good source of complex carbohydrates and help remove intestinal toxins from the body.

Grains

Grains are not found in the true natural diet, but they are a good source of fiber, minerals, vitamins, and complex carbohydrates. Liver disease is one condition where it makes sense to add grains, as soluble fiber helps remove ammonia from the system so the liver does not have to process it. Oatmeal is particularly high in soluble fiber and would be good to use as long as your dog doesn't have any problems with it (use whole rolled, steel-cut, or quick oats (cooked) which have more soluble fiber than instant). Boiled brown rice and pasta are useful due to their higher digestibility.

However, some grains (like white rice) do break down into sugars and can bombard with liver with sugar, cause yeast overgrowth, allergies, ear infections, skin problems, bloating, joint problems, malabsorption and digestive disorders.

The following **recommended grains** offer superior nutritional profiles and health benefits: certified gluten-free oats, quinoa, millet, amaranth, buckwheat.

Limit these grains: barley and brown rice.

Avoid these grains because they contain gluten, which can trigger food sensitivity reactions, including those with GI disorders: couscous, rye, wheat (including pasta durum, semolina), oats that are not labeled 'gluten free'.

Only freshly cooked grains that have nutritional or healing value are recommended. Do not serve cooked grains that have been refrigerated for more than 1 day. Natural fermentation from sitting in the fridge can be harmful to the liver and dogs with GI issues.

Update

If I was going to add grain to my dog's diet today, I would add quinoa. It is gluten-free and a good source of essential amino acids. It has a high dose of protein and carbohydrates. The only drawbacks are it is high in oxalate and copper. It should be avoided if your dog is prone to kidney/bladder stones or if your dog is on a low-copper diet.

Pasta and Potatoes Instead of Grains

Pasta and potatoes are my preferred sources of carbohydrates. Like grains, pasta, and potatoes provide energy in the form of calories. They have the added benefit of stopping heartburn by absorbing acid in the stomach. Pasta and potatoes do not ferment, so they won't cause digestive problems like grains.

Whole grain pasta is well digested by dogs. Pasta can be cooked separately or with vegetables. To get the most out of potatoes, wash and cook without the peel. The best way to cook potatoes is baked or in the microwave. It helps retain the nutrients that are lost when boiling in water. Potatoes have been listed as foods to avoid in some books. They are listed under the same category as the deadly nightshade plants and are thought to be toxic. But botanists have proven that potatoes are actually very safe for humans and your dog. If your potatoes have green eyes, remove them. The stems, leaves, eyes and flowers of potato plants are toxic and dangerous. White and sweet potatoes cooked with skin on should be removed before serving .

Other sources recommend grains like rice or oatmeal before considering pasta. I have tried both and have found it easier to cook and store pasta and potatoes over rice and grains. You can rotate pasta, potatoes, and healthy grains in your dog's diet and see what works best for your dog.

Update

Most pasta has no nutritional value (unless it is enriched) and although it will not hurt your dog it will not necessarily help them heal either. Most pasta also contains wheat gluten, which can cause GI issues. I prefer sweet potatoes over any other carbohydrate source. Sweet potatoes are considered a super food and are rich in beta-carotene, vitamin A, antioxidants and anti-inflammatory nutrients. The only drawback to sweet potatoes is they are high in copper. So, if your dog is on a low-copper diet or has problems with hepatitis encephalopathy (HE) you should only feed sweet potatoes occasionally or in small amounts.

Vegetables

Vegetables are usually only a small part of a natural diet, used to add vitamins, minerals and roughage to the diet. However, many vegetables have healing properties for the liver and play a key role in the diet. Do not give too many at one time. Some vegetables like beets and garlic should only be used in small quantities. Others, like onions, should be avoided all together.

Some vegetables that are good for dogs with liver disease are green vegetables such as green beans, squash or asparagus, along with some carrots. These vegetables contain valuable vitamins and minerals as well as natural cleansers and antioxidants that help to purify the blood and the liver. They also provide fresh enzymes and extra nutrition. Limit the use of broccoli and cauliflower because they produce too much gas for a liver dog.

To aid in digestion, cooked or steamed vegetables are preferred. Others can be served raw as long as they are chopped or pulped in a form that is easily digestible. You can use fresh or frozen and choose organic when possible. Be sure to wash all fresh produce (especially nonorganic) thoroughly to remove residual insecticides, dyes and waxes.

Fiber

Fiber plays an important role in your dog's liver diet. Fiber comes from carbohydrates that remain undigested and slows down the digestive system to help absorb ammonia and reduce nitrogenous wastes. Too much fiber can cause gas. Adding extra fiber through a supplement like ground psyllium (Metamucil©) or coconut fiber can help with Hepatic Encephalopathy (HE).

Fiber also binds toxic bile acids, lowers their concentration and increases their flow, and is therefore useful in cholestatic hepatitis.

Bones

Raw bones in a Natural Diet are like candy to a dog. Dogs love to eat them, and some do a good job of digesting them. However, they are **not recommended** for use in your dog's diet for liver disease, because some dogs will have intestinal and digestive difficulties. Some of these difficulties could be fatal, or at least require surgery to get through it. Surgery or additional health problems are too great a risk for dogs with liver disease. These health risks outweigh the benefits of bones.

To ensure your dog is getting enough bone minerals it is recommended to balance phosphorus in the diet with calcium carbonate or eggshell powder. For cleaning teeth – there are tooth brushes or use raw carrots. For jaw exercise, massaging gums and relieving stress – use safe chew toys like kongs, you can even freeze them for more fun.

Update

Bone meal is no longer recommended as a calcium source in homemade diets. It can be contaminated with heavy metals, such as lead or cadmium, which can be toxic to dogs. If you want to use bone meal in your dog's diet, you should look for a product that is certified organic and has been tested for contaminants. Organic bone meal is made from bones that come from animals that have been raised without antibiotics, hormones, or pesticides. It may also contain more trace elements, such as magnesium and zinc, that are

beneficial to your dog's health. Always use human edible versions. Do not use bone meal available at home and garden stores, it is not safe for animal consumption.

To make your own eggshell powder, dry them overnight, bake for 10 min in oven at 300 degrees and grind in a coffee grinder. Store in glass jar in fridge. Use high quality eggs for this. They will be used as a supplement. So, it's recommended to use eggs labeled as "pasture raised, organic, or free range". (For more details see Appendix F on <u>How to Make Eggshell</u> <u>Powder</u>)

Fruit

Fruits are good for the occasional treat or snack. Many dogs like fresh fruits like bananas, apples, and berries. Fruit is a good source of vitamins and minerals, especially vitamin C and potassium. For easy digestion, feed fruit as an in-between treat or snack at least 1 hour before or after a regular meal. Do not feed your dog citrus fruit (e.g. oranges, grapefruit, tangerines).

Certain fruits are liver protective, including blueberries, apples, cranberries, pears, and watermelon.

You should always wash and prepare the fruits carefully, removing any skins, seeds, pits, stems, or leaves that could be harmful or cause choking.

Herbs/Spices

Some common flavorings used in a natural diet are garlic, nutritional yeast and salt. These add flavor and have some benefits. However, nutritional yeast can cause allergies or digestive problems in some dogs, so **all yeast products are not recommended**. Fresh garlic is beneficial for toning up the digestive track and preventing fleas and worms. Some other spices that are healing for the liver and digestive tract are dried basil leaves and turmeric. For example, ginger is soothing on the belly. Use these gradually in all of your dog's meals.

Most home cooked diets are naturally low in salt, so this can help prevent ascites (fluid retention) in some forms of liver disease. **Do not add extra salt** to the diet and be sure to drain and rinse all canned food items.

Water

Give your dog distilled water for the first month. Distilled water is free of dissolved minerals and, because of this, has the special property of being able to actively absorb toxic substances from the body and eliminate them. Studies validate the benefits of drinking distilled water when cleansing or detoxifying the system for short periods of time. Do not cook with distilled water. You should use distilled water during the initial treatment but not during maintenance.

The best type of water for dogs is pure and clean water that does not contain any harmful chemicals or contaminants. You can provide your dog with filtered water, spring water, or reverse osmosis water that has been tested for quality and safety. You should avoid giving your dog tap water that has been fluorinated or chlorinated, as well as bottled water that may contain plastic residues or other toxins.

You should always provide your dog with fresh, clean, and accessible water, always in a stainless steel or lead-free glass dish. Never use plastic or ceramic dishes for food or water bowls. Ceramic bowls may contain lead and are harder to keep clean to prevent bacteria from growing. Plastic bowls may contain chemicals such as BPA which can contribute to health problems.

Some of the recipes will use water to mix with the food. When there is water in a meal, your dog will drink less water from his bowl. This is normal and should not cause alarm.

How Much to Feed in How Many Servings

Most Natural Diets tell you to feed your dog as much as he will eat in 1 or 2 servings while watching his weight. This works for healthy dogs that aren't lethargic, ravenous, pot-bellied or losing weight. But for a dog with liver disease, volume and number of servings is important. It's important not to let your dog go without eating enough to sustain himself, and not to let your dog eat so much that it overloads his liver.

Depending on the type of liver disease you may need to decrease the amount of protein. Discuss your dog's specific diet needs with your Vet or Nutritionist.

To be as easy on the liver as possible, meals should be broken down into small portions and fed more frequently than a normal diet. Serve your dog 3-4 small meals a day along with a small nighttime fruit snack (if needed) to prevent vomiting in the morning.

Caloric Needs – How much to feed

The amount you feed your dog will depend on how many calories are in the diet you are feeding. Here's a table with the caloric requirements for inactive and active dogs as well as for weight loss or weight gain. First determine how many calories your dog should be getting, then feed the amount of food that contains that amount of calories.

	Calories Needed For				
Dog's	Senior	Adult	Weight	Weight	
Weight in	Inactive	Active	Loss	Gain	
Pounds	Neutered	Intact			
1	50	61	39	69	
5	166	203	129	231	
10	280	342	218	389	
15	379	464	295	527	
20	471	575	366	654	
25	557	680	433	773	
30	638	780	496	886	
35	716	875	557	995	
40	792	968	616	1100	
45	865	1057	673	1201	
50	936	1144	728	1300	
60	1073	1312	835	1490	
75	1269	1551	987	1762	
100	1574	1924	1224	2186	

If you want an exact amount, there are several dog food calorie calculators online. (See <u>Resource List</u>.) If you don't know how many calories are in a recipe then a good rule of thumb is an average dog should consume about 2%-3% of their body weight in fresh food daily.

- 100 pound dog would get 2-3 pounds of fresh food daily
- 50 pound dog would get $1\frac{1}{2}$ pounds daily
- 25 pound dog would get 8-12 ounces daily

Why Diet and Supplements Work for Liver Disease

There is nothing magical about this treatment. It works because of the liver's ability to regenerate, and it is the liver that processes the food and supplements.

"Dietary therapy is a mainstay of treating the dog with liver disease, as there are few conventional medications that actually treat liver disease." - *Natural Health Bible for Dogs & Cats*

A healthy diet for liver disease includes:

- High biological value and easily digestible protein to reduce the production of ammonia.
- High quality and highly digestible carbohydrates for energy.
- Frequent feedings of high-quality carbohydrates, such as potatoes and pasta are recommended. And you can use an occasional grain carbohydrate.
- Vegetables provide complex carbohydrates, fiber and vitamins to remove toxins.
- Digestive enzymes help the liver process and digest the food.
- Multi-Vitamin and Supplements to fill all the nutritional needs.
- Balance of calcium and phosphorus is essential to the development and maintenance of a strong and healthy skeletal structure.
- Pure drinking water (for drinking and in all recipes).

What's Wrong with Commercial and Prescription Dog Foods?

There are several reasons why some pet owners may choose not to use commercial pet food:

- Commercial pet food is an ultra-processed food that contains low-quality ingredients, synthetic vitamins and minerals, preservatives, additives, and other chemicals that can harm the liver and increase its workload.
- Some commercial pet foods contain Menadione sodium bisulfite complex, a synthetic version of vitamin K that has been linked to liver toxicity in dogs with liver disease.
- Commercial pet foods use low quality protein sources (such as meat and bone meal that are easily contaminated with bacteria) that are cooked to kill bacteria. However, cooking cannot kill a bacterial by-product (endotoxins). Nothing can be done to remove endotoxins from contaminated pet food. Endotoxins can cause illness in dogs.

- Commercial pet foods contain low quality grain products like brewers rice that lacks many of the nutrients found in whole grains.
- Nutritional needs vary for each pet, and commercial foods do not provide for the individual and specific nutritional needs.
- Due to their ultra processed form, commercial pet foods require the liver to work harder in order to extract nutrients an additional strain on a dog's body with existing liver problems.

For more information about what's in commercial dog food, check out <u>The Truth About</u> <u>Pet Food</u> and <u>DogFoodAdvisor.com</u>. By understanding these issues, you can make informed decisions about what to feed your liver dog.

20th Anniversary Edition Update:

Good news! The commercial dog food market now offers alternative fresh food diets for healthy dogs, as well as specialized diets for dogs with liver disease. Taking care of your pup's liver diet has gotten easier.

JustFoodForDogsTM is a brand that offers fresh (frozen and shelf-stable) dog food diets for liver dogs. The ingredients are similar to the Liver Cleansing Diet (cod, sweet potatoes, zucchini, eggs, broccoli and rice). It is low in protein and copper, but high in antioxidants, omega-3 fatty acids, and soluble fiber. It also contains vitamins and minerals and amino acids that support liver function. (This requires a prescription from your veterinarian.)

The Honest Kitchen[™] has a dehydrated human grade formula (Whole Grain Turkey Recipe) that contains turkey, oats, barley, flaxseed and carrots. It is moderate protein, low copper, high antioxidants, omega-3 fatty acids and soluble fiber. It also contains vitamins, minerals and probiotics that support liver function. This would be a good maintenance diet after your dog is through the initial crisis. However, it's probably not low enough in protein for a dog with a shunt or symptoms of HE.

These are some alternatives for feeding your liver dog in case home-cooked meals are not a possibility.

Fresher is Better: Why Homemade Dog Food is the Way to Go

If you want complete control over your dog's food, a homemade diet is the way to go. With a homemade diet, you can ensure the freshest, most wholesome ingredients go into your liver dog's food. Plus, you can easily adjust nutrient levels and composition to suit your dog's changing needs.

"For dogs with various medical problems ... a homemade diet is probably the best way to go, as no 'natural' prepared diets at this time serve the needs of pets with medical disorders. There are medical-type 'prescription' diets for dogs with various diseases, but these do not always contain [appropriate] ingredients [for liver disease] and may contain byproducts and chemicals not desired by owners who opt for holistic care for their pets." (*Natural Health Bible for Dogs & Cats*) (Author's additions in brackets.)

How to Prepare a Homemade Meal

Food Preparation Guidelines

When preparing your homemade meals, it's best to keep your food groups in separate containers. In case one spoils, you will not lose everything. Then at mealtime, all you have to do is combine all the ingredients, along with any supplements then serve.

It's best to only prepare enough food for a few days at a time if you store the food in your refrigerator. You don't want to take any chances of giving your dog rancid or spoiled food. If you have extra storage space in your freezer, you can prepare more food, freeze it, and use as needed.

Preparing Protein (Meat, Eggs, Fish, Soy)

- **High Quality Meat** Buy 1-3 pounds of high-quality meat, like skinless, boneless chicken parts (thighs, or breasts or young hen) or turkey. If buying in bulk, separate into 3 days' worth of servings, wrap in plastic wrap and freeze in a freezer bag.
 - Take out one 3-day serving of the meat from the freezer and place in the refrigerator to thaw overnight.
 - Bring the meat to a boil in 2-4 cups of water and cook on medium for 5-10 minutes or until cooked thoroughly while skimming the fat off the top. Once the fat is cooked off the meat, add optional spices like basil, garlic and kelp, then simmer on low for 30 45 minutes. Turn heat off and allow time to cool. Remove any bones, and chop into bite size pieces.
 - Refrigerate with broth in a food storage container for up to 3 days.
 - Freeze what cannot be consumed in 3 days to use later.
- **Eggs** Soft-boil (5-15 minutes) or scramble 1-6 large free-range eggs at a time. Refrigerate unpeeled for up to 1 week.
- **Fish** Poach white ocean fish fillet (pollock, haddock or cod) in a frying pan with water until fish is white. Refrigerate for up to 2 days.
- Soy Use firm tofu: press for 15 minutes, to get some of the water out so it will absorb the flavor of what you are cooking with it, cut into cubes and then pan-fry, turning the pieces occasionally until browned. Or just add the cubes into whatever else you are preparing. Textured vegetable protein (TVP) is cooked by pouring boiled water or broth over it, in a heat proof bowl, and let it sit for 5 minutes.

Preparing Fresh Vegetables

- Buy 3 fresh vegetables at a time (e.g. 1 bunch of carrots, 1 zucchini or squash , and 2 stalks of celery).
- Wash the raw vegetables.
- Chop the vegetables with a knife, food processor, grater or blender. For small dogs you want them extremely fine. Medium-size dogs need coarsely chopped, and large dogs need small bite-size pieces.
- Lightly steam or boil (1-3 minutes) vegetables to help with digestion. It is better to cook vegetables to remove bacteria and to ensure absorption. Cooked vegetables are easier for the liver to utilize.
- Combine and refrigerate in a food storage container for up to 3 days.

Preparing Frozen Vegetables

- Cook 3-9 servings of frozen vegetables as directed on package.
- For small dogs, chop the cooked vegetables in a food processor or blender.
- Refrigerate separately in a food storage container for up to 3 days.

Preparing Grains, Potatoes, Pasta, and Other Items

- **Grains** Cook 3-6 servings as directed on the package or longer. The longer they cook the easier they are to digest. Refrigerate separately in a food storage container for up to 1 day.
- **Pasta** Cook 3-9 servings as directed on the package. 1 cup of uncooked pasta yields roughly 4 cups of cooked pasta. Refrigerate separately in a food storage container for up to 3 days.
- White Potatoes or Sweet Potatoes Bake or microwave 2-6 medium sized potatoes at a time. Remove skins. Refrigerate separately in a food storage container for up to 3 days.
- **Broth** Bring 1 small chicken or chicken necks (most of the skin removed) or 1 pound to boil in 2-4 quarts of water for 5-10 minutes while skimming the fat off the top. Once the fat is cooked off, simmer on low for 1 hour or until completely cooked. Allow broth to cool, then remove the bones and freeze in small to medium size containers until needed. Be sure to leave room in the container for the broth to expand as it freezes. Thaw in the refrigerator the night before and use within 1 week. Remove any fat from the top before serving.

Adding Supplements to Food

Adding supplements (like milk thistle) to your dog's food may alter the taste and cause your dog not to eat the meal. It is best to give your supplements and medications separately as directed (with meal or without meal). Some should be given 1 hour to 15 minutes before the meal and others no sooner than 1 hour after the meal.

Do not open a capsule and put the medication into the meal. This does not allow the medication to digest properly.

If you are giving the medications and supplements in the form of pills they should be given before the meal. Give them first using the pill hiding method and then feed them (unless they should be given before or after the meal.)

Digestive enzymes should be given in the individual meal right before feeding, not added to large batches.

Probiotics should be given with the individual meal, not added to large batches. Other supplements like Missing LinkTM should be given in the meal.

An **all-in-one supplement** like BalanceItTM should be added to entire batch. **Calcium supplements** like calcium carbonate or powdered eggshells should be added to an entire batch.

Update

Some people like to give Milk Thistle in a liquid form. The problem with liquid Milk Thistle is it has a bitter taste so adding it to your dog's food might make it taste bad which might make your dog not want to eat.

That's why I prefer to give Milk Thistle in a capsule form. If you do give the liquid Milk Thistle you can put it directly in your dog's mouth. They won't like the taste but it won't make their entire meal taste bad.

The same is true for other liquid herbs or homeopathic remedies.

Try giving your dog the liquid supplement alone directly in their mouth. Then give them a treat to clear the taste.

For liquid homeopathic remedies, they should be given before eating on an empty stomach and wait at least 15 minutes before feeding. Always check the dosage instructions for your supplements before you add them to your dog's food.

Foods That Heal

This table of food items shows what that food item contains and the function or benefit of that food item in general and in relation to liver disease.

Food Item	Contains	Benefits	
Artichokes	Silymarin, Folate	Helps prevent cancer and heal liver damage.	
	and Vitamin C		
Parsley	Myristicin, Apiol,	Help pass more urine to remove infection in	
	Vitamin C	urinary tract and help digestion.	
Beets	Vitamin B, Iron,	An antioxidant that protects against cancer.	
	Beta-carotene		
Carrots	Beta-carotene,	An antioxidant that fights free radicals.	
	Vitamin A		
Pineapple	Bromine	Helps treat all liver conditions, aids digestion	
		and helps joint function.	
Blueberries	Vitamin C,	Prevent cancer and constipation. Reduce risk	
	Leukotrienes	of infection.	
Raspberries	Vitamin C,	Prevent cancer and constipation. Reduce risk	
	Leukotrienes	of infection.	
Cranberries	Vitamin C,	Prevent cancer and constipation. Reduce risk	
	Leukotrienes	of infection.	
Blackberries	Vitamin C,	Prevent cancer and constipation. Reduce risk	
	Leukotrienes	of infection.	
Garlic	Selenium	Reduce risk of stomach and colon cancer.	
		Ease digestive upset and reduce gas.	
Barley	Vitamin E, Selenium	Improve digestion, protect against cancer,	
		reduce blood clots.	
Basil	Unknown beneficial	Ease digestive disorders, protect against	
	substances.	cancer.	

Food Item	Contains	Benefits	
Turmeric	Phytochemicals (or	Antioxidant that prevents colon cancer, anti-	
	Phytonutrients),	inflammatory for arthritis, decreases gas	
	Curcumin	formation and spasms, prevent stomach	
		ulcers.	
Apples	Quercetin, Insoluble	Prevent cancer and prevent or relieve	
	fiber and Soluble	constipation. Reduce cholesterol produced in	
	fiber called Pectin	the liver. Slows digestion.	
Potatoes	Anticarcinogenic	Help prevent cancer and control high blood	
	Chlorogenic acid,	pressure.	
	Potassium, Vitamin		
	C, Folate		
Sweet Potato	Beta-carotene,	Preserve memory. Prevent cancer and heart	
	Vitamins C & E	disease.	
Prunes	Insoluble and	Relieve constipation. Lower cholesterol.	
	Soluble fiber,	Reduce risk of cancer and heart disease.	
	Sorbitol, Beta-		
	carotene, and		
	Potassium.		
Squash/Zucchini	Rich array of	Help prevent cancer and lung problems.	
	Vitamins, Minerals		
	and Nutrients like		
	Vitamin C and Beta-		
	carotene		
Celery	Insoluble fiber,	Reduce high blood pressure and lower the	
	Potassium, Vitamin	risk of cancer.	
	C and Calcium.		

Health Fact

Garlic is a powerful detoxifying agent that can protect against various liver toxins.

Healthy Treats

If you're like most dog owners, giving your dog a treat is a regular part of your routine. Now, you can replace those dog bone treats from the store with these healthy treats that actually help your dog heal.

Fruit is a great treat and can be given often. As a guideline, give only a few pieces of these listed fruit items at a time. Don't overdo it. Avoid giving citrus fruit of any kind and give fruit treats at least an hour before or after meals or before bed. Buy organic fruit when possible or clean thoroughly before feeding.

- Blueberries
- Raspberries
- Bananas

- Blackberries
- Pineapple chunks (used sparingly due to high acidity)

Update

The Bottom Line

When it comes to feeding your dog with liver disease or shunt, what matters most is what's best for your furry friend. While I've shared a lot of information on the subject, the final decision should be based on what you feel comfortable with and what your pup responds well to.

It's always a good idea to seek advice from your veterinarian or a nutritionist specialized in canine nutrition before altering your dog's diet. Follow their recommendations on what foods are best for your dog.

Chapter 4 – Healthy Homemade Dog Food Recipes

"It is not easy to be a pioneer – but oh, it is fascinating! I wouldn't trade one moment, even the worst moment, for all the riches in the world." – Elizabeth Blackwell

Here are some recipes I used while feeding Norman. They are a good place to start.

Sunny's Miracle Diet

By: Kennalea Pratt

This recipe gave me hope. This includes the supplements and a Healthy Powder used in the diet. It includes brown rice, which is hard to digest, and oatmeal, which can ferment easily. This shows you where I started and what inspired me. Many "liver dogs" have done very well on this diet.

- **3** Pounds of ground turkey
- 4 Cups brown rice
- ¹/₄ Teaspoon garlic powder
- 11 Cups (or more) water
- 1 Bag frozen mixed vegetables
- 1 Bag frozen chopped broccoli
- 1 Cup regular oatmeal

Meat substitutes:

You can substitute the highest-grade ground beef for the ground turkey.

Meal variations:

Add 1 chopped boiled egg to meal. Mix ¹/₄ cup of non-fat cottage cheese with the meal.

Reheat:

Put serving in microwave safe bowl and heat for 1 minute or just long enough to reach room temperature. 1. Combine water, turkey and rice in a large stew pot and bring to a boil, cover and reduce heat to low and cook for 45 min.

- 2. Add 1 bag of mixed vegetables.
- 3. Add 1 bag of chopped broccoli.
- 4. Stir in thoroughly, cover and cook for about 5 minutes.

5. Stir in 1 cup ($\frac{1}{4}$ cup at a time) of regular oatmeal until all water is absorbed.

- 6. Put one lukewarm serving in food bowl.
- 7. Add ¹/₂ tablespoon of Modified Healthy
- Powder, add supplements

Store the unused food in containers and refrigerate enough for 3 days. Freeze the rest.

Yield: About 22 cups. (6071 calories, 25% protein, 33% fat, 39% carb, 2% fiber)

Serving suggestions (in cups): small dog $-\frac{3}{4}$ to $1^{3}/_{4}$; medium $-\frac{1^{3}}{4}$ to $2^{1}/_{2}+$; large $-\frac{2^{1}}{2}$ to $3^{1}/_{4}+$. (Feed twice a day)

Basic Liver Cleansing Diet

This liver cleansing diet has been formulated based on research and various examples.

- $1\frac{1}{2}$ Cups of new white potatoes
- $1\frac{1}{2}$ Cups of sweet potatoes
- $1\frac{1}{2}$ Cups of zucchini
- $1\frac{1}{2}$ Cups of carrots
- 4 Large Eggs
- 1 Pound of cod fillet
- ¹/₄ Teaspoon garlic powder

 Wash the potatoes well cut them up crosswise into 2" pieces.
 Simmer for 45 minutes to 1 hour and remove the skins.
 Wash the zucchini and cut up with carrots and steam or cook until very tender.
 Hard boil the eggs
 Poach cod fillet in a frying pan with water until fish is white.
 Combine and mix until well blended.
 Mix one serving with digestive aid with 1 serving and give medication as directed and serve.
 Store the unused food in containers and refrigerate enough for 2 days. Freeze the rest.

Yield: 10 cups of food. (1441 calories, 38% protein, 17% fat, 40% carb, 4% fiber)

Serving suggestions (in cups): small $-\frac{3}{4}$ to $1\frac{3}{4}$; medium $-\frac{13}{4}$ to $2\frac{1}{2}$ +; large $-\frac{21}{2}$ to $\frac{31}{4}$ +. (Feed 3-4 times a day)

Basic Homemade Meal for Liver Disease

Use this recipe and variations of it while toxins in the blood are high. This is the safest recipe with the highest nutritional value and easiest on the liver.

- ¹/₂ Cup ricotta cheese
- ¹/₂ Tablespoon extra-virgin olive oil
- ¹/₄ Cup cooked macaroni
- ¹/₄ Cup steamed mixed vegetables (carrots, celery, artichoke heart)
- ¹/₄ Large Egg
- 1 Teaspoon garlic powder
- ¹/₄ Cup water

Substitutes:

Substitute low-fat plain yogurt, or cottage cheese for the ricotta cheese. Substitute baked or microwaved white or sweet potatoes (without skin) or rice for the macaroni.

Vegetable preparation:

Wash and chop enough carrots and celery for 1 day (about ¹/₂ cup total) into bite-size pieces.

Steam or boil about $\frac{1}{2}$ cup of chopped carrots as directed. Combine all vegetables in container.

Enticers:

Add 4 tablespoons of chicken or beef broth.

- 1. Cook 1 cup of macaroni as directed on package. Allow to cool before serving.
- 2. Chop and steam or boil mixed vegetables.
- 3. Hard boil or scramble egg
- 4. Combine all in food bowl.

5. Then combine digestive aid with 1 serving and give medication as directed before serving

Store the unused meal in refrigerator

Yield: 1 meal for medium size dog.

Serving suggestions (in cups): small $-\frac{3}{4}$ to $1^{3}/_{4}$; medium $-\frac{1^{3}}{4}$ to $2^{1}/_{2}+$; large $-\frac{2^{1}}{2}$ to $3^{1}/_{4}+$. (Feed 3-4 times a day)

Reheat:

Place serving of macaroni and vegetables in microwave-safe bowl for 30 seconds or just long enough to reach room temperature. Then combine digestive aid and give medication as directed before serving.

Vegetable substitutes:

Feel free to substitute any of the vegetables with other vegetables on the list of healthy foods. Always use at least 3 different kinds for a total of 1 cup.

Healthy Chicken, Vegetable, Pasta Stew

Use this recipe after blood levels return to normal.

- 1 Whole chicken or 5 lbs. of chicken pieces
- 1 Chopped yellow squash
- 1 Chopped zucchini
- 1 Chopped carrot
- 1 Cup chopped celery
- 2 Cups frozen green beans
- 1 Cup uncooked curly (Ritoni) pasta
- 1 Gallon of water
- 1 Tablespoons dried kelp
- 2 (optional)
- 2 Tablespoons minced garlic (about 2 cloves)
- 2 Tablespoons dried basil or chopped fresh basil

Vegetable preparation:

Wash and chop fresh vegetables into bite-size pieces.

Vegetable substitutes:

Feel free to substitute any of the vegetables with other vegetables on the list of healthy foods. Always use at least 3 different kinds for a total of 4 cups.

Meal variations:

Add ¼ cup of baked or microwaved potatoes (without skin). Use 1 cup of rice instead of pasta

Reheat:

Put serving in microwave safe bowl and warm for 30 seconds or just long enough to reach room temperature. 1. In a large saucepan over medium-high heat, bring ¹/₂ gallon of water and chicken to a boil. Boil for 5-10 minutes while removing fat from the water.

2. Once the fat is cooked off the

chicken, add 1 tablespoon of garlic, basil, and kelp.

- 3. Simmer chicken on low for at least 1 hour or until completely cooked. Remove chicken from bones and chop into bite-size pieces. Discard most of the skin and fat.
- 4. While chicken is cooking In a large

saucepan over medium-high heat, bring $\frac{1}{2}$ gallon of water, pasta and vegetables to boil.

5. Add 1 tablespoon of garlic, basil and kelp to vegetables and pasta.

6. Simmer pasta and vegetables on low for 10 minutes. Remove from heat and keep covered until chicken is fully cooked.

7. Allow to cool before serving.

8. Mix one serving of vegetable and pasta and one serving of chicken together with some broth. (See Ratio)

9. Then combine digestive aid with 1 serving and give medication as directed before serving

Store the unused vegetables with pasta (together) and the chicken in broth separately in containers and refrigerate.

Yield: About 8 cups of vegetables/pasta and 2 cups of chicken.

Serving suggestions (in cups): small $-\frac{1}{2}$ to $\frac{3}{4}$; medium -1 to $\frac{1}{2}$ +; large $\frac{1}{2}$ to 2+. (Feed 3-4 times a day.)

Ratio of vegetable pasta to chicken: 2:1 Example of 1 serving for a medium-size dog: ½ cup of vegetable pasta and ¼ cup of chicken (adjust as needed).

BULK, Healthy Chicken, Vegetable, Pasta Stew

Use this bulk recipe after you are sure it works for your dog and you want to save time preparing meals.

- 2 Large whole chickens or 10 lbs. of chicken pieces (like boneless, skinless thighs or breasts)
- 2 16-oz. bags of sliced yellow squash
- 1 16-oz. bag of sliced carrot
- 2 16-oz. bags of frozen green beans
- 1 16-oz. bag of frozen baby green peas
- 1 10-oz. bag of uncooked Rotini pasta
- 2 Gallons of water
- 3 Tablespoons minced garlic
- 3 Tablespoons dried basil
- 3 Tablespoons dried kelp (optional)

Vegetable substitutes:

Feel free to substitute any of the vegetables with other vegetables on the list of healthy foods. Always use at least 3 different kinds.

Meal variations:

Add 2 large baked or microwaved potatoes (without skin). Use 4 cup of rice instead of pasta

Reheat:

Put serving in microwave-safe bowl and warm for 30 seconds or just long enough to reach room temperature. In a large stockpot over medium-high heat, bring 1 gallon of water and chicken to a boil.
 Boil for 5-10 minutes while removing fat from the water.
 Once the fat is cooked off the chicken, add 1½ tablespoons of garlic, basil, and kelp.
 Simmer chicken on low for at least 1 hour or until completely cooked.
 Remove chicken from bones and chop into bite-size pieces.
 Discard most of the skin and fat.
 In a large stock pot over medium-high

heat, bring 1 gallon of water, pasta and vegetables to boil.

5. Add 1¹/₂ tablespoons of garlic, basil and kelp to vegetables and pasta.

6. Simmer pasta and vegetables on low for 10 minutes. Remove from heat and keep covered until chicken is fully cooked.

7. Allow to cool before serving.

8. Mix one serving of vegetables and pasta and one serving of chicken together with some broth. (see Ratio below)

9. Then combine digestive aid with 1 serving and give medication as directed before serving

Store the unused vegetables with pasta (together) and chicken (in broth) separately in containers and freeze.

Yield: About 22 cups of vegetables/pasta and 6 cups of chicken.

Serving suggestions (in cups): small $-\frac{1}{2}$ to $\frac{3}{4}$; medium -1 to $\frac{1}{2}$; large $-\frac{1}{2}$ to 2+. (Feed 3-4 times a day.)

Ratio of vegetable pasta to chicken: 2:1 Example of 1 serving for a medium size dog: ¹/₂ cup of vegetable pasta and ¹/₄ cup of chicken (adjust as needed).

Dr Dodd's Liver Cleansing Diet

This liver cleansing diet has been formulated by W. Jean Dodds, DVM. Dr. Dodds recommends a formula of 2 cups of cod fillet to 6 cups of veggies and potatoes, or 25% cod fillet to 75% veggies and potatoes.

- $1\frac{1}{2}$ Cups of new white potatoes
- $1\frac{1}{2}$ Cups of sweet potatoes
- $1\frac{1}{2}$ Cups of zucchini
- 1¹/₂ Cups of string beans, celery or summer squash
- 2 Cups of cod fillet

1. Wash the potatoes well and cut them up crosswise into 2" pieces.

2. Simmer for 45 minutes to 1 hour and remove the skins.

3. Wash the zucchini and cut up with string beans, celery or squash and steam or cook until very tender.

4. Poach cod fillet in a frying pan with water until fish is white.

5. Combine and mix until well blended.

6. Mix one serving with digestive aid and give medication as directed before serving.

Store the unused food in containers and refrigerate enough for 2 days. Freeze the rest.

Yield: 8 cups of food. (1219 calories, 37% protein, 4% fat, 53% carb, 5% fiber)

Serving suggestions (in cups): small $-\frac{3}{4}$ to $1^{3}/_{4}$; medium $-\frac{1^{3}}{4}$ to $2^{1}/_{2}+$; large $-\frac{2^{1}}{2}$ to $3^{1}/_{4}+$. (Feed 3-4 times a day)

Low Protein Diet

This low protein diet should be used if your dog has high level of ammonia and other toxins in the blood or shows signs of Hepatic Encephalopathy (HE).

- 1 Cups of cooked rice
- $\frac{1}{2}$ Cups of potatoes
- 1 Cups of zucchini
- 1 Cups of carrots
- 2 Cup of cottage cheese
- ¹/₄ Teaspoon garlic powder
- 1 Tablespoon extra-virgin olive oil

 Cook rice as directed. Bake or microwave potatoes without skins, cut them into 1" pieces.
 Wash and cut up carrots and zucchini.
 Steam or cook until very tender.
 Combine and mix until well blended
 Mix one serving with digestive aid with 1 serving and give medication as directed and . serve.

Yield: 4 cups of food. (961 calories, 27% protein, 26% fat, 42% carb, 3% fiber)

Substitutions:

Substitute low-fat plain yogurt, ricotta cheese or eggs for the cottage cheese. Substitute macaroni for potatoes or rice Serving suggestions (in cups): small $-\frac{3}{4}$ to $1^{3}/4$; medium $-\frac{13}{4}$ to $2^{1}/_{2}+$; large $-\frac{21}{2}$ to $3^{1}/_{4}+$. (Feed 3-4 times a day)

Fast, Fresh Homemade Dog Food

Use this recipe when you suddenly discover that you are all out of your regular homemade dog food. This recipe should not be served on a regular basis. Use up to two or three times a week.

- 1 Large Egg
- $\frac{1}{2}$ Cup of cooked potatoes
- ¹/₂ Tablespoon extra-virgin olive oil

Substitutes:

You can substitute ¹/₂ cup of cooked macaroni or yams for the potatoes.

1. Lightly scramble egg in extra virgin olive oil.

- 2. Microwave 1 potato for 5 minutes.
- 3. Chop cooked potato into bite-size pieces.
- 4. Combine scrambled egg and $\frac{1}{2}$ cup potatoes
- in food bowl. Allow it to cool.

5. Then combine digestive aid with 1 serving and give medication as directed before serving

Yield: 1 meal for medium-size dog.

Serving suggestions (in cups): small $-\frac{3}{4}$ to $1\frac{3}{4}$; medium $-\frac{13}{4}$ to $2\frac{1}{2}$ +; large $-\frac{21}{2}$ to $\frac{31}{4}$ +. (Feed 2-3 times a day)

Fast, Easy Homemade Breakfast

Use this recipe when you need to cook something easy and fast. This recipe should not be served on a regular basis. Use up to two or three times a week.

- 1 Large egg
- ¹/₄ Cup of cooked oatmeal
- ¹/₂ Tablespoon extra-virgin olive oil

1. Lightly scramble egg in extra virgin olive oil.

2. Cook oatmeal according to directions

3. Combine scrambled egg and oatmeal in food bowl. Allow to cool.

5. Then combine digestive aid with 1 serving and give medication as directed before serving

Yield: 1 meal for medium-size dog.

Serving suggestions (in cups): $small - \frac{3}{4}$ to $\frac{1}{4}$; medium $-\frac{1}{4}$ to $\frac{2}{2+}$; large $-\frac{2}{2}$ to $\frac{3}{4+}$. (Feed 2-3 times a day)

Turkey and Rice Delight

This is a simple alternative meal if your dog is showing signs of food sensitivities or has stopped eating the other recipes. It uses grains so you can't make this in bulk. You only want to make enough for 1-2 days.

2 Cups lean ground turkey 1 Cook rice according to directions. Cup of cooked rice $\frac{1}{2}$ 2. Boil ground turkey in sauce pan Medium size potato 3. Cut the potato, carrot and green beans in 1 $\frac{1}{2}$ Carrot small pieces put in sauce pan and boil until Cup green beans $\frac{1}{4}$ tender 1/4 Teaspoon garlic 4. Drain and mix with olive oil and garlic Tablespoon extra-virgin olive oil $\frac{1}{2}$ Allow to cool. 5. Then combine digestive aid with 1 serving and give medication as directed before serving Yield: 2-4 meals for medium-size dog. Serving suggestions (in cups): small – ³/₄ to $1^{3}/_{4}$; medium - $1^{3}/_{4}$ to $2^{1}/_{2}+$; large - $2^{1}/_{2}$ to $3^{1}/_{4}+$. (Feed 2-3 times a day)

Consider these recipes as a starting point. There is no perfect diet. Your dog will have specific needs and wants. So, modify and substitute until it works best for your dog.

The basic thing to keep in mind is you want

1/3rd Protein
1/3rd Carbohydrate from Pasta or Grain
1/3rd Vegetables

If pasta or grain is combined with vegetables then give 2/3rds pasta or grain with vegetables and 1/3rd protein.

Don't forget to add digestive enzymes to make it easier to digest and Healthy Powder or Missing Link® in order to keep it balanced.

Chapter 5 – Supplements for Treating Liver Disease

"There is no doubt that God created these plants for our use, and gave certain individuals the talent for prescribing them, and promised us 'a land where ...you will lack nothing.' (Deuteronomy 8:7)" – Mary Ellen Hittinger

In addition to dietary therapy, supplementation is usually necessary. Check with your Holistic Veterinarian to determine the individual needs of your dog.

Milk Thistle's Silymarin – The Most Important Herb

Key role in treating Liver Disease

"Silymarin is a polyphenolic flavonoid derived from milk thistle (Silybum marianum). It consists of three phytochemicals, silybin, silidianin, and silicristin, and has a long tradition as an herbal remedy. Silybin is its most active phytochemical and is largely responsible for the proclaimed benefits of silymarin." (*Journal of Herbal Medicine, 2020*)

- Milk Thistle works to help the liver in 3 ways:
 - 1) It helps the liver regenerate itself by stimulating the growth of liver cells, by enhancing the production of DNA and RNA, to replace the cells that are damaged.
 - 2) It protects the liver from harmful toxins to prevent liver poisoning, helps treat liver diseases (of various kinds, including cirrhosis, chronic hepatitis, fatty infiltration of the liver and inflammation of the bile duct) and improves liver function.
 - 3) It is a powerful antioxidant, which protects the body from free radicals and increases levels of the antioxidant glutathione. Free radicals can damage cells and eventually lead to cancer.
- Even extreme cases of hepatitis and liver degeneration have shown improvement when treated with Milk Thistle.
- Milk Thistle is the most researched and best understood of all medicinal herbs.
- Studies have confirmed Milk Thistle's ability to protect and rejuvenate the liver.
- Silymarin cannot cure cirrhosis, which is end-stage liver disease, but it can support the part of the liver that is still healthy and working.
- Milk Thistle has been found to prevent or reduce drug-induced liver damage.
- Milk Thistle is very safe to take and does not have any negative effects, even when taken in high doses over a long period of time. In rare cases it can cause inappetence, gas, diarrhea and vomiting. If symptoms develop, try a lower dose and gradually work up.
- Silymarin is many times more potent in antioxidant activity than Vitamin E and Vitamin C.
- You can find Milk Thistle (Silymarin) online and anywhere supplements are sold.

• Make sure Silymarin, or Silybum Marianum, is listed in the ingredients in a standardized extract formula with at least 80% Silymarin.

Update

Other Benefits of Milk Thistle (Silymarin & Silybin)

Milk Thistle not only helps with general liver problems, including cirrhosis of the liver; it also:

- aids in healing kidney disease or kidney damage and speeds up the healing process;
- helps alleviate the symptoms of Pancreatitis;
- has been shown to decrease the effects of some cancers in a pet's body;
- cleanses the skin;
- detoxifies the liver and helps with allergies;
- helps decrease the amount of insulin needed over time (due to its antihyperglycemic properties) in pets suffering from diabetes;
- boosts antioxidant activity;
- has a cortisol-lowering effect;
- aids in gallstones and supports the gallbladder; can raise bile solubility, which encourages its circulation;
- acts on the liver and bile systems, so it may be helpful in dogs with IBD;
- helps prevent obesity;
- last but not least, it enhances and strengthens the immune system!

Quote from <u>Planet Paws</u> - Rodney Habib, author of *The Forever Dog*

Choosing a Product

20 years later, there are many different milk thistle products to choose from. So, how do you choose the best one for your dog? Here are some guidelines:

- 1. If your dog is over 8 lbs, choose a human supplement instead of a pet supplement.
- 2. Choose a human product that has silymarin extract standardized to 80%, on the label, in order to have therapeutic value.
- 3. Choose a human product with a potency (dosage) that is approximate for your dog's weight. See the dosage below.
- 4. Avoid whole ground milk thistle products because they only have 3% silymarin.
- 5. Avoid liquid milk thistle products, unless you have a very small dog and need a very small dosage.
- 6. If your dog is under 8 lbs, choose a product that is:
 - a. A high-quality pet brand that performs independent testing like: Mercola, Animal Essentials, Pet Wellbeing; or
 - b. A low-potency human product that is the whole herb and not an extract. Or has a low concentration of silymarin; or

c. A liquid milk thistle extract that you can give in small doses.

Dosage:

The standard dosage for liver disease (not maintenance) is 100mg to 200mg per 10 lbs. In acute cases, this dosage can be doubled and divided and given 3 times per day. This dosage refers to a milk thistle product that is an **extract** that is standardized to 80%.

Go to my website to get the exact dosage for your dog: <u>www.hopeforhealing.com/milk-thistle-dosage-calculator/</u>

Don't stress too much over the exact dosage. Milk Thistle is extremely safe in very high dosages (even over 1000mg per 10 lbs for cancer). Just make sure you are working with a high enough dosage to have a therapeutic effect for treatment.

I recommend adding milk thistle even if your veterinarian has prescribed a product like Denamarin that has Silymarin or Silybin in it. There may be other compounds found in the whole herb that significantly enhance the effects of the primary active ingredient - silymarin.

How best to administer:

- Milk Thistle is a very bitter herb. It's best to give it in capsule form and not mixed in food. If you are giving a liquid, administer it directly in your dog's mouth and then give them a treat to kill the aftertaste.
- Milk Thistle is best when given 2-3 times a day. Divide your total dosage down into smaller doses. This means you can purchase a smaller potency and administer it several times a day.
- An herbalist once told me that since the liver does most of its cleanup at night (between 2-3 am), Milk Thistle is even more effective when at least one dosage is given at night before bed.
- Milk Thistle's main active ingredient, silybin, has poor bioavailability. To help with absorption, Milk Thistle is best when given with Vitamin E, flavonoids, or food.
- Example: Give Milk Thistle capsules 3 times a day. Give twice with meals and a third dosage at night before bed with a small meal or snack and Vitamin E.

CAUTION:

Milk thistle may interact with some prescription medications, including anti-diabetic drugs and anti-seizure medications. Consult your veterinarian before giving Milk Thistle to your dog if they have diabetes or seizures.

Other Beneficial Healing Herbs and Supplements

This table of herbs and supplements includes essential, important, and helpful supplements that can be given with the Healthy Homemade Dog Food for the treatment of liver disease and cirrhosis.

Check with your Veterinarian before starting any of these supplements to make sure they are right for your dog. The dosages given are guidelines and depend on the size of your dog. These dosages are average dosages for medium size dogs (30 pounds) unless otherwise noted. Ask your veterinarian about the right dosage for your dog.

Supplement	Benefits and Comments	Suggested Dosage	Safety Issues
Vital			
Milk Thistle (Silymarin)	Has been shown to repair and rejuvenate the liver.	100-200mg per 10lbs	None
Vitamin E (Use d-alpha- tocopherol form)	Protects from metabolism of cell membranes. Powerful antioxidant, aids circulation.	100 IU per day	High doses have a "blood-thinning" effect.
Vitamin B complex	Needed for digestion and nutrient absorption, brain function, appetite, and formation of red blood cells.	50mg 2x/day	None
Vitamin B12	Prevents anemia, protects nerves.	22mkg of food/day	None
Omega-3 Fatty Acids (fish oil, flax seed oil)	Anti-oxidant, anti-inflammatory Helps liver, joint, brain function, and protects the circulatory system.	Unknown see your Vet.	High doses have a "blood-thinning" effect.
Valuable			
L-Carnitine	Used to turn fat into energy. May be helpful for pets with cognitive disorders (senility). Liver disease may inhibit carnitine production. Helps prevent build-up of fat in the liver. Antioxidant, protects against cancer in liver. Also good for cognitive function.	500 mg 2x/day on empty stomach	Rare side effects – diarrhea, intestinal gas.
Taurine	The most essential antioxidant. Protects from damage of free radicals.	500mg 2- 3x/day	None.
Alpha-Lipoic acid	Powerful antioxidant. Helps balance levels of sugar in the blood. Also good for cognitive function.	100 mg 1x/day	None.
Dandelion root	Useful for stimulating liver circulation, bile production, as a diuretic, to improve digestion, eliminate waste, and as an anti- inflammatory.	Unknown. see your Vet.	Not for pets on hypoglycemic therapy, with gallbladder disease or bile duct obstruction.
Useful			
Vitamin C	Liver Disease may decrease the amount of Vitamin C in the system. Unless Copper Retention is an	200 mg 1x/day	Long-term use could cause kidney stones. High doses

Supplement	Benefits and Comments	Suggested	Safety Issues
		Dosage	
	issue.		may cause
			diarrhea.
L-Arginine	Helps reduce ammonia blood	500mg	None.
	toxicity, produced in the digestion	1x/day on	
	of protein. It can build up when the	empty	
	liver isn't properly functioning.	stomach	
Choline (or	Helps liver and gallbladder	1,200 ppm	Rare side effects –
lecithin)	functioning and regulation. A	with meal	anemia.
,	powerful fat emulsifier. Especially		
	recommended for pets with fatty		
	liver disease.		
Garlic (allium)	Detoxifies liver, bloodstream.	1 raw clove	Too much is toxic.
× /		per day or 10	Not for pets with
		mg of allium	anemia or if
		daily with	surgery is
		meal.	scheduled. Stop
			use within a
			minimum of 1
			week before and
			after surgery. May
			cause excessive
			intestinal gas.
Turmeric	A powerful antioxidant, has	1 tsp/day	Do not use in pets
	protective effects on the liver, like		with bile duct
	Silymarin, and beneficial effects on		obstruction,
	the gastrointestinal tract including		gallbladder stones,
	decreased gas formation and spasm.		or gastrointestinal
	accreated gas romation and spasm.		upset.
Selenium	Good detoxifier and natural	0.11 mg/kg	Safe at
	antioxidant that works with	of food	recommended
	Vitamin E.		doses.

Supplement	Benefits and Comments	Suggested	Safety
		Dosage	Issues
Zinc	Needed for immune system and healing functions. Recommended for dogs with high levels of copper of Hepatic Encephalopathy or HE	100mg 2x/day for 3-6 months then 50mg 2x/day on empty stomach	Long-term side effects – copper deficiency, decreased immunity, heart problems, anemia. Can interfere in soy, manganese, penicillamine, and tetracycline absorption.
Bonemeal (tablets or human-grade powder)	To promote the healing of tissue and provide balanced calcium and phosphorus levels.	³ / ₄ - 1 tsp per day or 3-4 tablets per day (start slow and add more slowly)	Avoid if your dog has skeletal problems, cancer, parathyroid gland problems, kidney or bladder stones, or if taking antibiotics, and other pain medications. Check with your Vet if you're not sure.
Calcium Carbonate	To balance the protein Calcium: Phosphorus levels. Add to diet with meat protein.	900mg per pound of food	None
Di calcium	To regulate the intake of Calcium.	Consult your	
Phosphate	Eggshell powder is a good source.	Vet	
Psyllium husk powder (main ingredient in Metamucil ®)	To promote bowel regularity for gastrointestinal health. Also good for treating blood toxicity from protein that could lead to Hepatic	Consult your Vet, should be given with meal	Side effects – stomach cramping, diarrhea
	Encephalopathy or HE	with water	
Lactulose	To promote bowel regularity for gastrointestinal health. Also good for treating blood toxicity from protein that could lead to Hepatic Encephalopathy or HE	Start with a small amount and slowly increase	Side effects – stomach cramping, diarrhea

Multi-Vitamin, Dietary Supplements & Digestive Enzymes

Multi-Vitamin

To ensure your dog gets an adequate amount of all the vitamins and minerals, add highquality, complete multi-vitamin and mineral supplement like Canine Plus by Vetri-ScienceTM.

Follow your veterinarian's advice when choosing a vitamin-mineral supplement. Just like not all human vitamins are of the same quality, not all dog vitamins are the same. You want the best-quality product with all the vitamins, antioxidants, and minerals you can get to help restore your dog's health. You aren't giving your dog a multi-vitamin to maintain health; you're giving it to him to restore his health. **Don't skip this important part. This is NOT Optional!**

Without a good Multi-Vitamin, your Healthy Homemade Dog Food can be missing vital nutrients and cause more health problems.

Dietary Supplement

The Missing Link® is a dietary supplement designed to deliver the perfect ratio of essential fatty acid omega-3 and omega-6 in combination with a broad spectrum of natural fiber, flaxseed lignans, phytonutrients, calcium, phosphorous and more. Whole foods and food concentrates are not processed or altered. They provide added natural nutritional benefits when coupled with any animal food available (dry food, raw diet, home-prepared).

Flaxseed is the primary ingredient along with bone meal, fish meal, liver, oyster, whey protein, and more. This dietary supplement has been used by veterinarians and pet owners for years. The Missing Link® can be used instead of the homemade Healthy Powder and in addition to any other supplement you are giving your dog.

Digestive Enzymes

Digestive enzymes are required for a variety of functions. Enzymes aid in food digestion, absorption and maximize the utilization of nutrients found in natural home-prepared diets. ProzymeTM and Shake-N-ZymeTM are two recommended plant enzyme supplements that have proven beneficial for dogs. One of these products or a similar product is usually available from your veterinarian or online.

Calcium and Phosphorus

A balanced diet refers to the balance of calcium and phosphorus. Most protein sources have phosphorous and need additional calcium to balance it out. Multi-Vitamins, Healthy Powder and Missing Link® also contain these nutrients but may not have enough balance for the type of protein you are giving your dog.

Additional calcium may be needed to balance out the phosphorus that is contained in the amount and type of protein in your dog's diet. The addition of calcium carbonate or eggshell powder is used to keep these balanced.

Avoid These

It is just as important to know what NOT to give your dog, as it is to know what to give your dog. You want to avoid all toxic substances. Dogs with copper storage issues should avoid foods with high levels of copper. Dogs that need low protein diets should avoid foods that are high in purines. Here are some common foods to avoid.

Foods to Avoid

- Grapes & raisins are toxic to dogs
- Macadamia nuts are toxic to dogs
- Onions are toxic to dogs
- Fried or grilled meat
- Cooked bones
- Sugar
- Xylitol (a sugar substitute found in many "sugar free" foods like peanut butter)
- Chocolate
- Fatty foods
- Citrus fruit
- Nightshade family: Bella Donna, egg-plant leaves, green tomatoes
- Raw meat which can be contaminated with bacteria and pathogens would make a dog with liver disease worse.
- If your dog has copper storage issues, avoid or minimize all foods that are high in Copper: spinach, cauliflower, mushrooms, peas, rhubarb, sweet potatoes, all legumes, peanuts, peanut butter, soy-based foods like tofu and TVP, red meat and beef liver.
- If your dog has HE or protein intolerance, avoid foods high in purines: organ meat including livers, kidneys, brains, hearts, sweetbreads; seafood including oysters, shrimp, clams, mussels, lobster, scallops, mackerel, herring; any product that lists yeast (e.g. brewers yeast, nutritional yeast)

It's important to note that this list is not exhaustive. If you're unsure about whether a food is safe for your dog to eat, it's always best to consult with your veterinarian, nutritionist or do your research before adding it to your dog's diet.

Household Items to Avoid

- Plastic food bowl (glass or stainless-steel bowls are best)
- Pesticides
- Smoking
- Aromatherapy Oils

Medications to Avoid

- NSAIDs like Ibuprofen, Acetaminophen, Rimadyl, or Aspirin
- Flea & Tick Medications (unless absolutely necessary)
- Heartworm Preventative (unless absolutely necessary)
- Vaccinations (that aren't required. Ask your veterinarian for an exemption)
- Steroids and other medications that have liver failure side effects (if prescribed by your veterinarian ask for safer alternatives and monitor blood levels closely)

Pet Items to Avoid

- Flea & Tick Spot-on Treatments, Dips and Shampoos
- Flea Collars

Chapter 6 – Caring for Your Sick Dog

"Dogs laugh, but they laugh with their tails." – Max Eastman

Taking care of a sick dog with liver disease is not for the meek or the very busy. You may need to adjust your schedule and lifestyle to make time to cook, feed, take trips outside, give love and affection, and go to the Vet. But I assume you love your dog very much, or you wouldn't be reading this book. Keep a positive attitude and know that you are doing everything you can to save your dog's life.

Part of caring for your sick dog includes:

- Regular trips to the Vet
- Watching for symptoms of progressing liver disease
- Potty patrol
- Quick check-ups
- Giving your dog pills
- Bathing
- Controlling your emotions, and more...

This chapter will give you guidance on how to best care for your sick dog.

Good Veterinary Care

Finding a veterinarian who can provide the holistic care your pet needs is essential. Think about what you're looking for in their approach – from homemade fresh food diets to integrative and supplement-based treatments, as well as natural remedies– then go searching until you find one that suits both of your needs.

Before deciding on a veterinarian, it is wise to take the time and interview them. Ask questions that are important for your pet's liver disease care - anything from their experience in treating this condition to opinions about treatments or dietary requirements. Doing so will ensure you have an excellent relationship with your Vet while giving you peace of mind knowing that they can meet all the needs of both you and your beloved four-legged family member! (see More Resources for AHVMA website of Holistic Vets in your area)

Communication from Your Dog

One of the hardest parts about caring for a sick dog is not knowing what's wrong. Since they can't tell you verbally what hurts or what's wrong, you'll need to learn how your dog communicates symptoms.

Everything your dog does is communicating something to you. In the following sections, you'll learn what some of those things mean and what you should be looking out for.

These are some of the common signs and symptoms that you will be looking out for:

- Diarrhea straining / stool color / blood / mucus/ undigested food or medications.
- Constipation or straining to poop.
- Vomiting color / mucoid / foamy / time-lapse after eating / time of day or night/ digested or undigested.
- Urination Accidents (or frequent urination), when alter or sleeping.
- House Soiling Accidents
- Begging, Demanding Attention or Acting Very Needy
- Changes in Behaviors wandering off, seizures, aimless pacing or circling, head pressing.
- Changes in Temperament / Alertness decreased activity, awareness of surroundings.
- Changes in Eating eating grass, eating strange objects, seeming hungry all the time (ravenous appetite), no appetite, eating own stool or other unusual objects.
- Changes in Sleeping Habits lays down in a different spot, restless and can't sleep, or sleeps constantly.
- Moaning, groaning, stomach gurgles, flatulence
- Signs of Progressing Liver Disease depression, swollen belly, jaundice (yellow eyes and skin), chronic weight loss.

Potty Patrol

First of all, you need to know that you're going to be on potty patrol from now on. That's right. You will be looking at your dog's stool. The stool is a major indicator of how your dog is doing. It will tell you how your dog's digestion is going, how much the liver is processing, or not processing, and a whole lot more. Get in the habit of watching your dog's stool. Watch for straining. If your dog has diarrhea (loose stools) for more than 2 or 3 days, or has diarrhea and vomiting, you will need to take action and see your veterinarian due to possible dehydration.

A normal stool should be brown, well-formed, or solid, and should not contain any mucus, blood, or undigested food. In liver dogs, however, it is important to look for 2 to 3 soft yet still-formed bowel movements per day to prevent constipation. Signs of constipation are hard dry pellets that the dog strains to expel. Constipation should be avoided as it can lead to the multiplication of ammonia-producing bacteria in the GI tract.

Feeding several small meals a day that includes fiber from pumpkin, oatmeal, potatoes, ground psyllium husks or lactulose may have to be used to achieve this goal.

Diarrhea can take on many forms and have many causes. The more specific you can be about the characteristics of your dog's diarrhea the better your veterinarian will be able to diagnose and treat the problem. Diarrhea is common when making drastic changes in your dog's diet so food should be changed gradually over a period of several days. If you have not changed your dog's diet, something else could be wrong.

In diagnosing the cause of diarrhea, your veterinarian will need to decide whether the

diarrhea originates in the small bowel or the large bowel. The characteristics of the diarrhea, as well as the condition of your dog, will help your veterinarian make this determination. Bring a sample of the stool with you. Or take a picture to show them.

The following chart gives you an idea of what to look for and what your veterinarian may determine.

What stools and diarrhea tell you about your dog

Characteristics of Diarrhea			
Indicator	Problem	Part of Digestive System	
Appearance			
Yellow, greenish, watery	Rapid transit through bowel,	Small bowel, biliary or liver	
	diet changes, excess grass or	issues	
	green veggies		
Black, tar-looking, dark	Bleeding of Upper GI tract	Stomach, small bowel	
blood	(side effect of charcoal)		
Red blood, clots	Bleeding of Lower GI tract	Colon, anus	
Pasty, light	Bile Insufficiency	Liver, pancreas	
Bulky, gray, containing	Insufficient	Small bowel, liver, pancreas	
undigested food, like rice or	digestion/absorption		
carrots.			
Sloppy, gray, greasy-looking	Too much fat in the diet	Small bowel, liver, pancreas	
Loose, foamy	Intestinal bacterial infection	Small bowel	
Oily or greasy-looking	Poor food absorption, too	Small bowel, pancreas	
	much fat in the diet		
Shiny or jellylike	Contains mucus	Colon or infection	
Odor			
Smelling like food or sour	Rapid transit through bowel	Small bowel, pancreas	
milk	and insufficient digestion/		
	absorption (likely due to		
	overfeeding)		
Foul-smelling	Insufficient digestion,	Small bowel, pancreas	
	suggests fermentation of		
	stool		
Amount			
3-4 small stools within a	Inflammation of the Colon	Colon	
short time, with straining	(Colitis)		
3-4 bulky stools within 24	Insufficient digestion/	Small bowel, pancreas	
hours	absorption		
Changes in the Dog			
Weight loss	Insufficient digestion/	Small bowel, pancreas	
	absorption		
Normal weight and appetite	Large bowel condition	Colon	
Vomiting	Enteritis, Gastritis,	Small bowel, stomach,	
	Pancreatitis	colon (in rare cases)	
(Adapted from Dog Owner's Home Veter	inary Handbook)		

Characteristics of Diarrhea

Hope For Healing

Vomiting

Dogs are good at vomiting. Vomiting is very common and has many causes. However, sporadic vomiting that occurs off and on over a period of days or weeks, with no relationship to meals, may indicate that a chronic condition, such as liver disease, is present. Persistent vomiting or retches of a frothy, yellow, or clear fluid (bile) could indicate a stomach problem, such as acute gastritis, which is a common liver disease-related illness.

When vomiting occurs, take note of the following to report to your veterinarian.

- Is the vomiting repeated? If so, does your dog vomit or retch repeatedly, bringing up a frothy, yellow, or clear fluid? Or does your dog vomit off and on over a period of days or weeks with no relationship to meals?
- Is there a relationship to meals? How soon after eating does it occur? Is it projectile (flying from mouth)?
- Inspect the vomitus for blood, food material digested or undigested, fecal material, foreign objects, and worms.

What vomit tells you about your dog

The color of a dog's vomit can indicate different things depending on the color. According to a dog vomit color chart, yellow, green and orange may be indicative of bile in the dog vomit while brown, pink, red and black (coffee ground hue) may be indicative of blood in the dog vomit. Clear, slimy or foamy vomit that's tinged with yellow indicates your dog's stomach was empty at the time vomiting occurred. The foam comes from mucus that's normally present in the stomach plus saliva, while the yellow is bile from the small intestine.

Color	Most Common Cause	What To Do
		(Always tell vet about vomiting)
Yellow	Excess bile, empty stomach, liver disease	Feed small snack before bed
Black	Dirt, soil or ulcerous material	Determine what was eaten
White	Saliva, bloat or regurgitation	Wait and see, see vet if worsens
Red	Digested blood	Seek immediate attention
Green	Bile or plant material (grass) or veggies	Wait and see, see vet if continues
Brown	Intestinal blockage or eating too fast	Determine what was eaten, see vet
Black	Bleeding ulcer	Seek immediate attention
with		
magenta		
tinge		

Dog	Vomit	Color	Chart
DUS	vonnt	COIOI	Unart

Urination Accidents

When a change in the frequency of urination occurs, these are clues to health problems. Increased thirst, frequent drinking, and urination could be an indication that the combination of calcium and phosphorus in the diet is out of balance. Check your diet to make sure the calcium to phosphorus ratio is correct or work with a nutritionist or pet food consultant to balance your diet. In more serious cases it could be signs of possible kidney failure or another metabolic disease. Too much protein in your dog's diet can cause your dog's kidneys to work overtime and begin to fail. Do not ignore this common symptom. Take your dog to see your veterinarian to determine the specific cause and treatment.

Soiling Accidents

There are several causes of house soiling. If the soiling is diarrhea, it could be a sign of an acute case of gastroenteritis, or other problem, and warrants a trip to see your veterinarian. Soiling could also be due to failing memory, cognitive problems, or neurological problems with the spine in older dogs. Do not punish your dog if this occurs. Most likely, the dog could not help himself. Scolding and punishment only produces fear and anxiety, which makes the problem worse.

Begging or Demanding Attention or Acting Very Needy

A behavioral change like begging for attention or comfort and acting very needy should not be ignored. This behavior suggests discomfort or pain, possibly associated with eating. When a behavioral change like this occurs, take note of the following:

- When does the need for attention or comfort happen? Is there a relationship to meals, say 1 or 2 hours after eating?
- Does your dog's stomach growl or get upset?
- Is your dog passing gas or constipated?
- Is your dog vomiting?
- Does your dog have diarrhea?

Changes in Behavior

Wandering Off, Disorientation, Head-pressing, Behavional changes

If your dog starts to behave differently, like wandering off or forgetting where you are, this could be a sign of cognitive problems or Hepatic Encephalopathy (HE). One of the main things we do in treating dogs with liver disease is to try and prevent HE. To address HE symptoms, give your dog a low-protein diet (<u>listed in recipes</u>) and Lactulose or Metamucil ®, as directed by your veterinarian. There are also other supplements that help support cognitive functions and can slow down mental deterioration. (<u>See Supplements for cognitive support.</u>)

Changes in Eating Habits

Eating Grass or Other Unusual Objects, Ravenous Appetite, Loss of Appetite

When your dog eats grass or unusual objects, that could be an indication of an upset stomach. An upset stomach can occur because of something as simple as your dog raiding the garbage can, or because of a bad meal. If this persists over several days, it could be a sign of something more serious and you should see your veterinarian. If your dog starts eating stools, there could be a medical problem or nutritional deficiency. If your dog has a ravenous appetite, he could be eating stools in an attempt to acquire additional calories. Add small amounts of additional protein and carbohydrates to each meal or break the meal up into small portions and increase the number of feedings. If this does not stop the behavior, ask your veterinarian about it. There could be a problem with food processing or absorption.

If your dog has an upset stomach, he may stop eating. This is a normal response. It allows the digestive system to get back to normal. Try giving him TumsTM to ease the pain.

Some medications can cause your dog to be reluctant to eat. Your dog must eat, or liver disease can spiral out of control. A dog that is not eating will eventually no longer feel hungry and this could make anorexia much worse.

Help Me! My Dog Won't Eat

Liver disease can cause a dog to lose their appetite. This can be due to a variety of reasons such as nausea, vomiting, and abdominal pain. In addition, advanced liver disease can also cause malnutrition through decreased appetite and abnormal nutrient digestion, absorption, and metabolism.

It's important to note that if your dog has been eating and suddenly stops eating, you should contact your veterinarian immediately. Your vet may recommend IV fluid therapy to flush their system and replenish fluids to prevent dehydration.

If your dog is not sick or showing symptoms of liver disease but still not eating, there could be several reasons why. Some of the common reasons include dental problems, changes in diet, stress, anxiety, and even boredom.

Here are some things you can try to get your dog to eat.

For picky eaters and dogs who are cautious eaters because of GI issues like vomiting:

- Offer a variety of foods to see what your dog likes,
- Feed from a plate or dog platter rather than a bowl,
- Feed warm food to make it smell and taste better,
- Sprinkle food with something that will make it smell or taste better like low-fat parmesan cheese.
- Feed from the table stand on your head or do whatever you can to make them want to eat.

If your dog has GI issues, try adding some healing food for digestion like ginger. Give your dog something to increase their appetite like B12 or a B Complex supplement. Or ask your vet for an appetite stimulant or anti-nausea medication.

Some other things to consider:

- Cut back on treats or in between snacks.
- Stick to a regular feeding schedule but it's ok if they want to skip a meal. Just make sure they don't go 24 hours without eating or drinking.
- Don't get stressed, make mealtime fun time such as playing with a toy that dispenses food, using a lickimat or rewarding your dog with food for doing a trick.
- Take your dog for a sniff walk (as they are able) before mealtime.

If your dog has not eaten or drank in 24 hours or more, they should be seen by a veterinarian right away to be assessed and treated for likely dehydration, and to investigate the underlying cause of their unwillingness to eat or drink.

Changes in Sleeping Habits

Lays down in a different spot, Restlessness, Sleeplessness, Increased or Decreased Sleeping

Where your dog lays down to sleep and take naps can actually tell you a lot about what kind of mood he's in. Think about where your dog usually lies down during different times of the day. Does he have favorite spots? Notice if these spots of the house are colder or warmer than other spots or areas. Does he lie down in a place near you or away from you?

If your dog starts lying down in a different place, and that place is away from you, this could mean he's not feeling good. The contrary is also true. As long as he's lying down in the same spots as usual, and those spots are near you, this is a good sign that he's feeling good.

A change in sleeping patterns can also tell you when your dog doesn't feel good. If he's restless at night or waking you up to let him out, it could be a sign of discomfort. This usually goes along with other changes like diarrhea and vomiting. Likewise, a good night's sleep can be a good sign that he's feeling good. However, sleeping all the time or more than usual could also be a sign of problems.

Signs of Progressing Liver Disease

Depression/Lethargy, Swollen Belly, Jaundice (yellow eyes and skin), Chronic Weight Loss, Stops Eating

It is very important to stay on the lookout for signs that the liver disease is progressing. If the original symptoms do not go away, and these signs appear, the liver is not responding or regenerating with the treatment.

Let's look at each of the signs individually.

Depression or Lethargy

If your dog does not want to play or refuses to go for walks or lies down in a different spot and stays there for most of the time, these are signs of depression or lethargy. This should be watched carefully to see if it progresses. Keep in mind that rest is very good for liver dogs because you want as much energy going toward liver repair.

Swollen Belly (Ascites)

If your dog has a swollen belly that looks like it's full of fluid, this is known as ascites. This could be a liver or circulation (heart) problem. This is most likely because the dog is not getting adequate protein and has low albumin. Or is spilling protein out in the urine.

Jaundice (yellow eyes, gums, and skin)

If the whites of your dog's eyes begin to yellow this could be because the liver is not processing properly. The gums and skin may also appear yellow.

Chronic Weight Loss

If your dog has little or no appetite, or a good or ravenous appetite and is still losing weight, this is a sign that the liver is failing to process all the nutritional building blocks and the body is failing to maintain itself. This condition is known as *wasting*.

Hepatic Encephalopathy (HE)

If your dog develops incoordination, sporadic weakness, disorientation, head-pressing, behavioral changes, drooling, stupor, and mental dullness this could be a sign of high levels of ammonia in the blood. This condition is known as hepatic encephalopathy.

When the liver is sick, ammonia accumulates to toxic levels and exerts a poisonous effect on the brain.

Symptoms tend to wax and wane. They become more severe after a high-protein meal. Seizures and coma occur when hepatic encephalopathy is advanced.

If you notice this behavior cut down on the amount of protein in your dog's diet or give a recipe with milk-based protein. Look at recipes that are marked as "Low Protein". Also give him Lactulose or Metamucil [®].

Stops Eating

If your dog stops eating, he may not feel well enough to eat. Liver dogs must eat and get their daily nourishment otherwise the liver will start pulling protein from elsewhere in the body like muscle and this will cause excessive amounts of ammonia to build up which could cause HE. Self-digestion is the worst culprit for a liver dog. It could also be the final sign that the liver disease has progressed to potential liver failure.

Special Needs of Dogs with Liver Disease

When dogs are seriously ill, they may feel the need to go off by themselves to rest and allow nature to heal the condition. They often stop eating and lie down in a cozy place that is quiet and out of the way. This gives your dog a sense of security. Allow your dog to be off by himself but offer reassurance and comfort that you love him and are there for him. Be patient, but watchful.

How to Give Your Dog a Quick Check-up

It's important to keep a close eye on your dog's state to make sure the liver disease is not progressing. Keep a look out for all the common symptoms of liver disease as well as pigmentation changes (turning yellow), bruising, excessive redness, uncontrolled bleeding, and signs of pain.

By examining your dog regularly, you can monitor his overall health and track the progress of treatment. Perform this quick check-up weekly at first and then monthly after your dog has stabilized. Be sure to resolve any concerns with your veterinarian. *Adapted from Dr. Pitcairn's Complete Guide to Natural Health for Dogs & Cats.*

- Examine the eyes. Check for matter in the corners. Gently pull down the lower eyelids so you can see the whites of the eye. Do the whites look yellow, bruised, have popped blood vessels, or look red? If yes, your dog may have jaundice – contact your Vet for treatment.
- 2) Look in the ear holes. Do you see wax? Do the insides look oily? Sniff to check for an offensive odor. Does the skin pigmentation look yellow or have excessive redness? Does your dog react in pain when touching the ear? If yes, contact your Vet.
- 3) Check the gums and teeth. Gently raise the upper lip and push back the corners of the lips at the same time. You don't need to open the mouth. Do the gums have a red line along the roots of the teeth? Do the gums look yellow, white, bruised, or bleeding? Are the teeth gleaming white or coated with brown deposits? Smell the breath. Does it smell okay, or are you overcome by it? Is there saliva in the mouth, or is your dog drooling? If yes, contact your Vet.
- 4) Run your hand along the hair coat back and forth with and against the grain. Does the coat feel greasy? Do you see dandruff or little black specks? Black specks are the excreta of fleas. Smell your hand. Does it smell like "dog odor", is it rancid, rank, or fishy? Is your dog losing hair or excessively shedding? If so, it's a sign of poor health due to liver disease or another medical condition. Starting a new diet may also trigger a cleansing process that could cause an odor during detoxification.
- 5) Pull up on the skin and let go. Does the skin stay sticking up? If so, your dog is dehydrated. See your Vet for treatment. Do you notice any pigmentation or color change? Is the skin yellow or bruised? Are there any sores or spots that may have been bleeding? These are all signs of liver disease. If you notice any changes, contact your Vet.
- 6) Last, feel the backbone in the middle of the back. Do you feel defined bones there? Is there a prominent ridge sticking up in the middle? If so, your dog is much too thin, and this could be a sign of wasting.

Don't forget about Potty Patrol. Also, watch how many times and how long your dog urinates. To measure how much your dog urinates, just count (one one-hundred, two one-hundred...) while he urinates. Look at the color of the urine. Make sure it's not orange or red. Also, watch for straining to urinate or potty.

Signs that Your Dog Is in Pain

The most common physical signs of pain in your dog are:

- Loss of appetite
- Obsessive grooming (excessive licking or scratching a specific area)
- Lameness (limping, stiffness after rest, slow to get up, reluctant to play, interact or exercise)
- Shivering, shaking, or trembling
- Pained noises (whimpering, whining, yelping, groaning, crying)
- Panting for no apparent reason
- Lethargy (sleeping longer, less active and enthusiastic than usual, delayed response to stimuli, lack of energy, unwillingness to do things they normally do)
- Antisocial behavior (reluctant to play with other dogs, grumpy temperament, aggression)
- Weird posture or gait (flattened ears, low posture, shaking head)

The most common causes of pain in your dog are:

- Injury
- Pancreatitis
- Bone Cancer
- Arthritis
- Periodontal Disease
- Slipped Disc
- Ear Infection
- Cystitis (bladder inflammation)

Creative Ways to Give Your Dog a Pill

You are going to be giving your dog at least one pill a day, possibly a handful several times a day. Instead of the traditional method of opening your dog's mouth and inserting the pill down the throat and inducing swallowing, here are a few creative ways to make this easy for you and your dog.

Since most dogs do not chew their food, it's easy to hide pills in some favorite foods that your dog will eat without question.

- Start by giving your dog the pill-hiding food by itself, as a treat, to make sure your dog likes it.
- Then give your dog a pill that is hidden in the food along with some more of the pillhiding food, again like you would give him a treat.
- After a few days of hiding the pill, you can try just putting the pill in your hand, or a small dish, and covering it with a little pill-hiding food to see if he will eat them along with the food.
- Once your dog is used to this new treat, you can put several pills in your hand at once and cover them with the pill-hiding food. Your dog will eat the handful of pills and food like a treasured treat and never know the difference.

Some good pill-hiding foods and treats that you can make into a ball are:

- Banana
- Cheese (small sliver of soft cream cheese, or sliced cheese) ball
- Sweet Potato ball
- Pill pockets or paste
- Bread with a touch of butter, squeezed into a ball
- Small teaspoon of pumpkin

If your dog is smart and doesn't take the food with the pill in it, try the "Three-Treat Method". Dr. Sara Ochoa, DVM, a veterinarian at <u>Whitehouse Veterinary Hospital</u>, suggests using the 'three-treat method' if you're struggling to get your dog to take a pill. "Get three identical treats and stuff the medicine into one of them," she explains. "Give your dog the first treat so they know what it tastes like (yum), then give them the treat with the pill in it, followed quickly by the third treat. Your dog will be so excited to eat *all* the treats that they'll quickly swallow the one with the pill. This method works even better if there is another dog around."

Bathing and Grooming

Continue to give your dog a regular bath and trim the nails to keep your dog clean and healthy. Use an oatmeal-based shampoo and conditioner, or whatever your veterinarian indicates for hair and skin health. If you use a dog Groomer, ask them to withhold any perfumes, and DO NOT dip your dog for fleas.

Non-Toxic Flea & Tick Control

Do not use ANY flea & tick control treatments, dips, sprays, powders, collars, or shampoos until your dog's liver has had sufficient time to detox (usually after you see normal liver enzyme levels in a blood test). Then, use only natural non-toxic flea and tick control program or safer hybrid program described below.

Do Not Use Natural <u>Essential Oil</u> Based Flea and Tick Control Products <u>ON</u> Your Dog

The chemicals in essential oils are rapidly absorbed into the system, whether received orally or through the skin, and **metabolized by the liver**. Therefore, using essential oils could be **problematic for dogs with liver disease**, or elderly dogs.

However, these natural products are safe when used <u>in the environment</u> and your dog's skin does not come in contact with the spray. (i.e. after it is dry)

20th Anniversary Edition Update:

The Forever Dog book supplemental resources states: "Many veterinary and environmental organizations are calling for a new, judicious and risk-based approach to control parasites in pets, moving away from the previously recommended year-round, blanket administration of these products to using the least amount of chemicals, only during the most high-risk months and <u>only for healthy animals in high-risk environments</u>. Using natural deterrents in

between chemical applications can be an effective hybrid approach to reducing the amount of chemicals your animals have to clear from their systems.

Animals eliminate veterinary pesticide residues from their bodies by detoxification, a natural body process of removing waste products and toxins. There are 5 organs that are important for detoxification, including the colon, skin, lungs, kidneys and liver. Your animal's liver is especially important for metabolizing flea and tick chemical residues." - *The Forever Dog* book.

It goes on to reference studies that show many of the Vet prescribed flea and tick products (like Frontline®, Barricade®, Easyspot®, Sentry Fiproguard®, Parastar®, PetArmor®, Specta Sure® and Pronyl®) are all made with fipronil, a phenylpyrazole insecticide that is widely used as a pesticide and a veterinary drug, although studies suggest that it could be toxic to mammals. **The active ingredient (fipronil) in these products** has been assessed through acute, subacute, and chronic toxicity tests in mice, rats, rabbits, and dogs, which suggests it is considered to be an agro-chemical which **is hepatotoxic (affecting liver function) among many other toxicities.**

Since our liver dogs do not have healthy functioning livers, we should avoid the use of these toxic chemicals on our dogs.

Non-Toxic Flea and Tick Control Program

Start your flea and tick control program with these non-toxic steps adapted from *Dr. Pitcairn's Complete Guide to Natural Health for Dogs & Cats.*

- Steam clean your carpets at the first site of fleas and ticks to kill flea eggs before they hatch.
- Vacuum and clean the floors and furniture where your dog sleeps at least once a week to pick up flea eggs, larvae, and pupae. Immediately dispose of the vacuum bag or its contents to prevent escape. Or, clean the outdoor doghouse to get rid of fleas and their eggs.
- Launder your dog's bedding at least once a week in hot, soapy water and dry it on maximum heat.
- Bathe your dog and leave shampoo on for 5 minutes. This drowns the fleas. You don't have to use a natural non-toxic flea & tick control shampoo. Any dog shampoo will work. Do NOT bathe your dog in Dawn[™] dish liquid. Do NOT use a flea dip or medicated flea shampoo.
- Brush your dog daily with a flea comb to trap and kill fleas already on your dog.
- Mow and water your lawn regularly to drown developing fleas and ticks.
- Do not use pesticides that kill all insects in your yard, especially ants. Ants eat flea eggs and larvae.
- Beneficial nematodes are an alternative to pesticides and are available at most nurseries.

- Sprinkle food grade diatomaceous earth once or twice a year along walks, under furniture, in cracks and crevices and in shady areas. The chalk like powder kills insects by drying them out. It is safe for human and pet contact.
- Add brewer's yeast and garlic to your dog's diet. (garlic in small amounts is safe for dogs, see references in appendix)

20th Anniversary Edition Update:

To eliminate fleas from your dog and end the never-ending flea cycle once and for all, it is essential to treat (use products and implement flea control program in) <u>ALL</u> areas where your pet lives at the <u>same time</u> – pets, home, yard, kennel or garage and anywhere your pets live. Otherwise, fleas will come back because they have a life cycle of 3-4 months in which fleas go through several life stages and multiply quickly. If you do not get them all out of all areas at the same time, new fleas hatch from eggs and larvae to continue the cycle.

Safe flea control products

- PetGuardTM food supplements have yeast and garlic powder that you feed to your dog on their food or as a tablet to help repel fleas after they get on your dog.
- WondercideTM is an essential oil-based product that can be safely used in the <u>yard</u> to kill and repel fleas, ticks and mosquitoes. Do NOT use ON your dog.
- Flea-control traps that are plugged in near your dog's bedding will attract and trap newly hatched fleas. (Check online)
- Only Natural PetTM Flea & Tick Tag is a chemical free repellent for fleas, ticks and mosquitoes that works energetically for 12 months.
- There are several brands of natural flea and tick sprays and shampoos that repel fleas and ticks without all the harmful chemicals. Look for products that have Neem oil like Ark NaturalsTM Neem "Protect" Spray instead of essential oils. WondercideTM, Vet's+BestTM, Richard's OrganicsTM, and Kin+KindTM are a few examples to avoid. Although most essential oils are safe for healthy dogs, it is not recommended to use products with essential oils on a dog with liver disease.

Hybrid flea control procedure for high (flea) risk areas:

This hybrid approach reduces the amount of chemicals (toxins) in your dog's environment. Do NOT use any chemicals ON your dog that your dog's liver would have to clear from their systems.

• Use the least amount of chemicals, only during the most high-risk months and only in your dog's environment and NOT on your dog. (e.g. Insect growth regulator (IGR) without the insecticide) If you have a major flea infestation on your hand and you must use an insecticide, use the least amount of chemicals and add an insect growth regulator to make it more effective in the long-term.

- Use natural flea deterrents/repellants in between chemical applications in your environment. (e.g. nematodes, food grade diatomaceous earth, essential oil based products)
- Do NOT use any toxic chemicals on your dog (e.g. Vet prescribed monthly oral medication, over-the-counter spot on treatments, flea collars, medicated flea shampoo, essential oil products).
- Use ONLY non-toxic, natural products on your dog, only during the most high-risk months. (e.g. garlic and yeast in the diet, topical neem oil spray products) Or just bathe your dog weekly with simple shampoo without chemicals or essential oils.

Keep the fleas from reproducing – they all die off in 3 months

If you live in a high (flea & tick) risk area and MUST use a toxic flea control product, **use one in your environment** and NOT on your dog, **that has an insect growth regulator (IGR)** which is like birth control so that any adult fleas that are still around can't reproduce. Most insecticide products only kill the adult fleas and not the eggs and larvae. And even fewer have insect growth regulators (IGR). Common active ingredients in IGR'S are **hydroprene, methoprene and pyridine.** IGR's work for 6-7 months so you do not need to use a monthly product on your dog or the environment. Within 2-3 months all the fleas will be dead. (see resources or check online)

Heart Worm Preventative

Do not use Heart Worm preventative at all, or only if your dog has normal liver enzyme blood levels, and you live in a high-risk area. If you do use a Heart Worm preventative, only use it every 6 weeks (instead of monthly) during high mosquito season (if at all) and watch for signs of a relapse. Make sure you are giving your dog Milk Thistle before and after treatment, if you aren't already giving your dog Milk Thistle.

20th Anniversary Edition Update:

There is an all-in-one solution that addresses fleas, ticks and heartworms. Do not use the vet prescribed medication named TrifexisTM. It may cause toxicity to the liver, seizures or even death.

Vaccinations

Stop all vaccinations until your dog is stabilized. Then discuss with your veterinarian to determine what is absolutely necessary. Ask for titer tests instead of boosters. An antibody titer is a measure of the concentration of antibodies in the blood. You can use titers to know whether your dog does need to be revaccinated and avoid unnecessary booster vaccination.

If you do vaccinate your dog, give extra doses of Milk Thistle before and after the vaccination, followed by a checkup one week later to look for any signs of a reaction or decline in health.

Emotional Health

It's important to pay special attention to emotional issues in your home to foster a positive emotional climate and help your dog heal. Your dog's health is affected by feelings of tension, anxiety, depression, anger, and other emotional upsets in the home. Your attitude and expectations about liver disease will have a pronounced effect on the outcome. To promote emotional health and healing:

- Begin to notice how your dog reacts to your emotions and emotions in your home.
- Reassure and give extra positive attention and love, when you and your dog are in a good mood, to support emotional health and healing.
- Have faith in the power of healing. Pray for guidance in selecting your dog's healthcare practitioner, wisdom to take good care of your dog, and for your dog's healing.
- Treat your dog like an older puppy, not a sick dog.
- Don't scold or punish your dog for accidents, house soiling, or begging for attention. Give extra love and attention using a positive tone of voice.
- Don't worry about your dog's health. Be grateful and thankful for every day you have with him.
- Eliminate as much stress as you can from your life. From this point forward be as relaxed, confident, and calm as possible. When upset, avoid interaction with your dog and family members. Take a break when you need it to gain a fresh perspective.
- Use alternative treatments to reduce your stress. Some good ones to try are Bach Flower "Rescue" Remedies, Aromatherapy, and Music therapy.

(Dr. Pitcairn's Complete Guide to Natural Health for Dogs & Cats)

Author Aleithia Artemis, an Animal Behavior/Emotions Specialist and long-time studier of health-related influences, has this advice:

"Positive emotional attention must be given exclusively when both you and your dog are in a *good mood* (or at least a neutral one) *to begin with*. *Nonchalance* (or at least its appearance) should be given when you or your dog are stressed. Obvious exception: dire emergency. That IS the proper time to panic, and rush to one's chosen healthcare practitioner. There's a time for everything under the sun, and yes, sometimes panicking is the responsible thing to do.

The idea to keep in mind: When you are feeling panic-stricken over the looming prospect of losing your best friend and unconditional lover; but the situation truly is not an emergency – separate yourself from your dog and pretend nonchalance, while you administer your own needed emotional self-care. When you return to sanity, go back and enjoy your dog. They are, after all, STILL ALIVE WITH YOU HERE AND NOW. Concentrate on and savor the goodness of that truth."

Chapter 7 – Liver Related Illnesses and Treatment

"Homeopathy cures a greater percentage of cases than any other method of treatment. Homeopathy is the latest [most] refined method of treating patients economically and non-violently." – Mahatma Gandhi

Liver Disease can create other problems that you must treat as they arise. One common illness is Gastritis, or stomach problems.

Gastritis or Stomach Problems

The common signs of stomach problems are poor digestion (undigested food in the stool, large more frequent stools), vomiting and diarrhea, gas, growling stomach, eating grass or strange objects, depression, hiding (either immediately after eating or an hour or so later), loss of appetite or acting very needy. The common causes of stomach problems are spoiled food, excessive grains, fermented grains, food allergies, eating raw bones and intestinal parasites.

The two most common forms of stomach problems are Acute Gastritis (sudden upset) and Chronic Gastritis (low-grade, persistent upset). Usually, the underlying cause will need to be determined.

Dr. Pitcairn's Complete Guide to Natural Health for Dogs & Cats gives several homeopathic treatments for both acute and chronic gastritis. The right treatment to use is determined by identifying the specific symptoms and using the treatment that works best for each symptom. The symptoms can be from multiple or varying causes, which may need to be determined specifically to treat effectively.

A good first step is to withhold food for 12-24 hours to allow rest and healing. A clear broth fast is a good way to do this.

For the dog that wants attention and comfort (acts needy), especially if he is not interested in drinking, you could try an antacid like TumsTM (Calcium-Carbonate). Give your dog one chewable tablet. It is safe to use with liver disease, and it is very effective for relieving upset stomach, indigestion, and diarrhea associated with Acute or Chronic Gastritis.

Another treatment is a Homeopathic Remedy – *Pulsatilla 6C (wind-flower)*. Homeopathic remedies are very different from conventional medicine. They are administered crushed. Grind the pellet and place it in a bowl. (You may need to buy a pill crusher.) Then let your dog lick the crushed pellet out of the bowl. The powder will be absorbed in the mouth, bypassing the digestive system. They do not work as effectively if they are given with food. Wait at least 15 minutes afterwards to give food.

For Acute Gastritis give one pellet every 4 hours until the symptoms are gone. Do not feed your dog for fifteen minutes before and after treatment. If your dog shows signs of improvement, continue giving the treatment for five days. Discontinue as soon as the symptoms are completely gone. If you do not see a response within 24 hours, you should take your dog to the Vet.

For Chronic Gastritis that shows up in the dog that has a good appetite but gets upset with changes in the diet, or is prone to gas and constipation, give digestive enzymes with food and test for food sensitivities. Remove any food items from the diet that are on the list of common food allergies. Don't make drastic changes in diet, do it gradually.

You could also try an Herbal Remedy – *Garlic (Allium sativum)*. For strictly stomach problems, give $\frac{1}{2}$ teaspoon to 1 tablespoon of garlic extract 3 times a day until the problem is relieved. Make garlic extract by soaking 4 to 6 chopped cloves in $\frac{1}{2}$ cup of cold water for 8 hours and then strain. For intestinal problems give 1 garlic softgel capsule a day with a meal until symptoms are gone. If problems recur, you may want to add this to your daily regimen.

You can also use *Pulsatilla* for chronic gastritis. The main difference between acute and chronic gastritis is that the chronic form of illness has less intense symptoms as the acute stage. For example, your dog may be "clingy", wanting attention and drinking less water, but not vomiting or showing signs of diarrhea. Chronic symptoms do not stand out as strongly as when they are seen in acute form. But if this persists over time it should not be allowed to linger. Look at making a diet change gradually to find out what could be causing this.

Although it is common for dogs to have an upset stomach, make sure there is not some other underlying cause. If chronic symptoms do not go away within 24-48 hours, it may be time to see your veterinarian.

Allergies/Sensitivities/Food Intolerances

Determining exactly what is causing the allergic reaction can be difficult. Start with a basic diet with common food allergens omitted. Give the basic diet for an extended period of time (3-4 months). If the problem clears up or improves, slowly reintroduce the omitted foods, one at a time, to find out which one or ones are causing the problem. If the problem does not clear up with a basic diet, the cause may not be food related. This is where things can get difficult or impossible.

20th Anniversary Edition Update:

There are now food sensitivity/intolerance tests that can give you specific food ingredients to avoid so that you don't have to do so much trial and error. (see list of <u>food</u> <u>sensitivity/intolerance tests</u> that are in the resource section)

Symptoms of an Allergic Reaction

- Scratching caused by itchy skin or eruptions, especially on the lower back near the base of the tail, or anywhere and everywhere on the body.
- Inflamed ears.

- Excessive licking of the front legs and top of the paw.
- Digestive upsets (gurgling, gas and a tendency toward diarrhea).
- Inflammation of the toes.
- Irritated rear end (anus, anal sacs and genitals) with licking and dragging of the rear on the floor.
- Itchy eyes with gook in the corners.

"Research suggests that about a third of all allergies are caused by substances in foods. You can easily identify the immediate trigger by using a [hypoallergenic] diet for a while. If the symptoms subside but return when you go back to the original diet, you can assume that your dog is allergic to one or more of the ingredients in the daily diet." (*Dr. Pitcairn's Complete Guide to Natural Health for Dogs & Cats*

Common Food Allergens

- Beef
- Wheat
- Rice
- Milk
- Cheese
- Eggs
- Nuts

- Fruits
- Tomatoes
- Carrots
- Yeast
- Various spices, additives, and dyes
- Flavorings in chewable vitamins
- Many others...

How to Determine Cause of Allergic Reaction

Determining exactly what is causing the allergic reaction can be difficult. Start with my hypoallergenic diet for an extended period of time (3-4 months). If the problem clears up or improves, slowly reintroduce the omitted foods, one at a time, to find out which one or ones are causing the problem. If the problem does not clear up with a hypoallergenic diet, the cause may not be a food allergy. This is where things can get difficult or impossible. You may need to work with a trained professional to determine the exact cause of the allergy. Blood tests can also be run to determine the most likely foods your dog is sensitive to.

How to Control Allergies

To help control allergies, give high doses of Vitamin C (do not give if your dog has copper retention or if your dog is prone to stones), B-Complex, and Omega-3 Fatty Acids. They act as natural antihistamines. There are also some good Homeopathic Remedies for allergies. Consult with your Holistic Veterinarian.

Do not give Benadryl as it is not good for the liver.

Chapter 8 – Gratitude and Faith

"Little miracles come into our lives, not on huge bolts of lightning, but on gentle beams of light, love and hope." – Dan Zadra

When I think back over the past year since Norman was first diagnosed, I am amazed at how far we two have come. I am filled with gratitude for every day I've had with Norman. When I look to the future, I have faith that this book will help many other pet parents care for their beloved best friends. I know that Norman will not live forever. I have nearly faced his inevitable death twice now. Each time I let go a little more, learn a little more and feel even more grateful for each moment of each day that I still have him.

I'm not fighting with death anymore. I've faced my fears, acknowledged my feelings and learned tremendously from the deep emotions that come from the loss of a furry family member. Instead of fighting, I'm going with the flow of the river of life. Death is just a part of life. It comes to all of us. When it does come, I know I will be sad, disappointed, angry and even depressed. I will miss Norman terribly. He has been my companion and best friend for over 12 years. But I'll be comforted in knowing that I didn't give up hope, and I did my best to care for him.

This Book is For You

This book took longer than I expected to finish. Doing the research to help Norman and writing it all down were two very different things. But I have learned even more by taking the time to synthesize it. The hardest part of finishing this book was not knowing if I had done enough. I doubted my recipes and treatment. I didn't want to tell anyone to do something if I wasn't 100% sure it was right. Every time Norman got sick I would blame myself, and tell myself I was doing something wrong. For as long as he was sick, I couldn't finish the book. Then, when he had his last crisis, I didn't think he was going to make it. And that cast a big shadow of doubt on ever finishing it. But he recovered and here I am, writing the last chapter. I was compelled to finish it today. I feel like I owe it to Norman. I'm also convinced that someone else is out there who desperately needs the information I have in this book, because their dog has just been diagnosed with liver disease. It may not be perfect, and it's definitely not everything there is to know about how to care for a dog with liver disease. But it's a whole lot more than what was out there when I started looking over a year ago.

This book is written for you and the dog that you love. I hope you find it useful, informational and inspirational. I want it to give you hope for your dog's healing.

I encourage you to do your own research and develop your own homemade dog food that's just right for your dog. Remember, you know your dog better than anyone else does. Listen to your heart and follow common sense. Work with a Veterinarian who supports complementary and alternative treatments. Get the resources you need to feel like you're doing your best. Everything you learn about how to care for your dog will improve your own well-being and your dog's quality of life.

Afterword

"He is your friend, your partner, your defender, your dog. You are his life, his love, his leader. He will be yours, faithful and true, to the last beat of his heart. You owe it to him to be worthy of such devotion." - Unknown

Update on Norman

The treatment described in this book healed Norman's drug induced liver disease in only three months. The diet, supplements and care supported his liver and organs.

I'm happy to say that, after 2 years from his initial diagnosis and prognosis of less than a month, Norman never had any liver disease symptoms again.

But, in addition to liver disease, Norman had severe arthritis. With the liver damage, Norman could not take any conventional pain medications. I continued my research on how to treat arthritis. I found several homeopathic alternatives and supplements that helped with pain. But throughout the year his arthritis just kept getting worse. I kept increasing his dosages for pain, but it would only help for a few days or weeks. Then I could see he was in pain again.

When the pain was bad, he could barely walk around, so I was carrying him everywhere. He could barely stand up long enough to eat. When it got so bad that he couldn't stand up on his own and needed help going outside to potty, I knew it was time to do something.

I considered getting him a doggie wheelchair. But Norman had a lot of dignity, and I didn't want to keep him here just for me. I thought about it for days. I prayed about it. I talked to Norman about it. And the answers were all the same. It's time to let him go. His job is done.

So, on November 22, 2003, a week after the printed book was released and a week before Thanksgiving, I let Norman go over the Rainbow Bridge. I know that he's having fun running and playing again. His spirit is still with me, and I am still grateful to have had him with me for the extra 2 years.

Letting him go was the hardest thing I've ever done. I miss him immensely. Not a day goes by, that I don't think about him. But I know it was time, and it was the best thing for him. He was very special, and we shared a very strong connection.

It has taken me over two years to put the final updates (about Norman) in this book. Every time I sat down to write it, I would get emotional and then I couldn't get the words out.

Whenever someone mentions the video, it reminds me of how glad I am to have that video of me and Norman. It's priceless. I watch it every so often. It brings back so many memories. It makes me smile, and it makes me cry. I'll never forget my faithful friend.

I am so happy to know that there are other people out there as dedicated to their dogs as I am. Everyone who writes to me is so in love with their dogs. I think we are a special type of human with a strong connection to our animal friends. They provide us with so much joy

and love. The other humans, who don't have this connection, don't know what they're missing.

Please don't let the death of Norman discourage you. Remember he lived nearly 2 years after his initial diagnosis of cirrhosis, even though he was given only a month to live. Plus, I know of other liver dogs who went on to live 3,4 even 9 years with liver disease. If anything, please remember Norman as a wise dog who taught us all how to take care of our furry family members. He taught me so much about unconditional love. He is still an inspiration to me. And I hope his life goes on to help thousands of other dogs with liver disease.

With all my hope for your dogs' healing,

Cyndi

Rainbow Bridge

Author Unknown

Just this side of heaven is a place called Rainbow Bridge.

When an animal dies that has been especially close to someone here, that pet goes to Rainbow Bridge. There are meadows and hills for all of our special friends so they can run and play together.

There is plenty of food, water and sunshine, and our friends are warm and comfortable.

All the animals who had been ill and old are restored to health and vigor; those who were hurt or maimed are made whole and strong again, just as we remember them in our dreams of days and times gone by.

The animals are happy and content, except for one small thing; they each miss someone very special to them, who had to be left behind.

They all run and play together, but the day comes when one suddenly stops and looks into the distance. His bright eyes are intent; His eager body quivers. Suddenly he begins to run from the group, flying over the green grass, his legs carrying him faster and faster.

You have been spotted, and when you and your special friend finally meet, you cling together in joyous reunion, never to be parted again. The happy kisses rain upon your face; your hands again caress the beloved head, and you look once more into the trusting eyes of your pet, so long gone from your life but never absent from your heart.

Then you cross Rainbow Bridge together....

Appendix A: Complete Shopping List

Grocery Store

Distilled Water

Protein

White Ocean Fish Fillet - Pollock, haddock or cod

Muscle Meat – Whole Chicken or boneless, skinless thighs or breasts, 85% Lean Ground Turkey

Other Protein Options – Free-Range Eggs (no hormones, no drugs), Low Fat Cottage Cheese, Low Fat Plain Yogurt, Ricotta Cheese, Textured Vegetable Protein (TVP), Firm Tofu (organic, non-gmo)

Complex Carbohydrates (Vegetables)

Fresh Vegetables – Celery, Carrots, Squash, Zucchini, White or Sweet Potatoes Frozen Vegetables - Squash, Green Beans Canned Vegetables (no-salt) – Artichoke Hearts, Green Beans, Carrots

Simple Carbohydrates

Rice, Oatmeal, Whole Grain Pasta

Herbs/Spices

Garlic (whole) Ginger (whole or ground) Basil Leaves (fresh or dried) Turmeric (whole or ground)

Oil

Extra Virgin Olive Oil

Treats and Snacks

Fresh Pineapple Chunks (not canned), Blueberries, Blackberries or Raspberries

Pill-Hiding Food

Bananas, Cream cheese, Pill Pockets, Sweet Potato, Whole Wheat Bread, Canned Pumpkin

Health Food Store or Online

Milk Thistle (150 mg per capsule) Vitamin E (D-Alpha Tocopherol), 100 IU per softgel capsule The Missing Link® Dietary Supplement Calcium Supplement – Calcium Carbonate powder Ground Psyllium Husk Powder

Other Supplements as directed by your Vet

L-Carnitine (500 mg) Taurine (500 mg) Alpha Lipoic Acid (100 mg) Omega-3 – fish oil

Other Remedies that are useful to have around

Homeopathic Remedies - Pulsatilla 6c or 12c (pellets, not liquid) Bach Flower Remedies - Bach's Rescue Remedy

Specialty Items

Pill Crusher (if giving homeopathic pellets)

Veterinarian Items

Digestive Enzymes (Prozymes) (available online) Multi-Vitamin (Canine Plus by Vetri-ScienceTM) (available online) Ursodiol (100-150 mg per capsule) prescription only SAM-e (Denosyl) or Denamarin (not both) (available online in pill or chewable)

Appendix B: Healthy Powder

Dr. Pitcairn's Complete Guide to Natural Health for Dogs & Cats gives a recipe for a "Healthy Powder" which contains several important food supplements that should be added to each meal. The Healthy Powder recipe has been modified for the Sunny's Miracle Diet based on experience and use. Both the original version and the modified version are listed below.

Amount	Ingredient	Comment
2 cups	Nutritional (torula or	Rich in B vitamins, iron and other nutrients.
_	brewers) yeast	(Optional)
1 cup	Lecithin granules	Linoleic acid, choline and inositol, which help
_	_	your dog emulsify and absorb fats, improving
		the condition of his coat and digestion.
¹ / ₄ cup	Kelp powder	Iodine and trace minerals. Be careful of iodine
		amount
¹ / ₄ cup	Human grade Bonemeal	Enough calcium to balance the high
_	_	phosphorus levels in yeast and lecithin.
1,000 mg	Vitamin C (ground)	Not required by dogs because they synthesize
		their own, but personal experiences suggest its
		value. Liver patients may not synthesize.

Original Healthy Powder

Mix all ingredients together in a 1-quart container and refrigerate. Add to each recipe as instructed, usually about 1 tablespoon per meal.

Modified Healthy Powder

Amount	Ingredient	Comment
1 cup	Lecithin granules	
¹ / ₄ cup	Human grade Bonemeal	Enough calcium to balance the high phosphorus levels in lecithin.
5,000 mg or 2 tsp	Ester-C (powder)	Ester-C functions as an antioxidant and free radical scavenger, used to repair tissues and protect against cancer, infections, and enhances immunity.

Mix all ingredients together in a 1-quart container and refrigerate. Add to each recipe as instructed (usually about $\frac{1}{4}$ teaspoon per meal).

Appendix C: Blank Checklist

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date							
Wake-Up Time							
Medication Time							
Breakfast Time							
Potty Patrol Check							
Medication Time							
Lunch Time							
Ursodiol							
Potty Patrol Check							
Lunch Supplements							
Medication Time							
Dinner #1 Time							
Potty Patrol Check							
Medication Time							
Dinner #2 Time							
Potty Patrol Check							
Night Supplements							
Snack (optional)							
Bedtime Med Time							
Potty Patrol Check							
Other Notes							

Appendix D: Norman's Case History

PATIENT INFORMATION

Name:	Norman
Sex:	Male, Neutered
Birthday:	05-05-91
Breed:	Cocker Spaniel

Date	Vet	Description of Examination and Treatment	Test Results	Reference Range
1/31/96	RG	Heartgard Green chew 26-50		_
		Program Yellow 21 to 45#		
		(flea)		
5/10/97	RG	Dental Tarter		
7/3/98	RG	Dental Clean & Polish Teeth <50		
		DHLP/Parvo Annual, Rabies		
		Advantage DOG 2.5ml RED		
10/26/98	RG	Upset Stomach		
		Liquipect liquid with		
		Antibiotic		
		Centrene Injection		
		Subcutaneous Fluids		
6/11/99	RG	Dental Care Recommendation		
		DHLP/Parvo Annual, Rabies		
		Geriatric Health Profile		
		Rimadyl 75 mg tabs - ½ pill		
		every 12 hours as needed for pain		
		Advantage DOG 2.5ml RED		
		Heartgard Green chew 26-50		
12/28/99	RG	In Pain		
12/20/99	100	Heartgard Green chew 26-50		
5/30/00		Grooming	Weight:34.5	
10/10/00	RG	Lipoma Left Rib Cage		
, ,		Osteoarthritis hip joints		
		Patellar Luxation Bilateral		
		DHLP/Parvo Annual, Rabies		
		X-Ray, Routine		
		Rimadyl Caps 75mg x 60 - ½		
		tablet 2x/day		
12/09/00	RG	Rimadyl Caps 75mg x 60 - ½		
to		tablet 2x/day		
<mark>12/15/01</mark>		Heartgard Green 6 Month Supply		
3/30/01		Grooming	Weight:34	

Date	Vet	Description of Examination and Treatment	Test Results	Reference Range
09/21/01	RG	Gingivitis ++++++ Sebaceous Adenoma	Weight:28.9	
		Tumor Removal	GLU=100.3	76.0-145.0
		DHLP/Parvo Annual, Rabies	BUN=4.9 (L)	16.0-36.0
		Torbugesic Inj (for pain) Dental Clean & Polish Teeth	ALT=34	12-130
		<50	Blood Test	Ref. Range
		Moderate calculus and tartar	$\frac{B100011032}{HCT=34.9}$ (L)	37.0-55.0
		build up.	HGB=12.4	12.0-18.0
		Rinsed mouth with Hexarinse	MCHC=35.5	30.0-36.9
			WBC=12.6	6.0-16.9
			GRANS=10.0	3.3-12.0
			% GRANS=79%	
			L/M=2.6	1.1-6.3
			%L/M=21%	
			PLT=165 (L)	175-500
			Retics=0.6%	
		Taikial Biannaisa di Tiana	TP=6.0	5.70-8.90
		<mark>Initial Diagnosis of Liver</mark> <mark>Disease</mark>		
12/15/01	RG	Listless. Not active. Eating	Weight: 31.2	
		not normal.	Temp: 102.5	
		Polyuric/Polydipsia		
		Left side just behind the ribs	General Health	Ref. Range
		a large lump feels like a Lipoma	Profile	2.60-3.90
		Needle Biop - Just Fat	ALB=2.02 (L) ALKP=103	14-111
		Abdomen feels as if might have	ALT=199 (H)	12-130
		some fluid	AMYL=1030	500-1500
		Heart sounds OK Lungs clear	BUN=10.2 (L)	16.0-36.0
			Ca=8.61	7.80-11.30
		Canine 1/d cans	CHOL=120.7	110.0-320
		STOP taking Rimadyl	CREA=0.73 (L)	0.80-240
			GLU=127.2	76.0-145.0
			PHOS=4.04	3.10-7.50
			TBIL<0.10	0.00-0.90
			TP=5.89	5.70-8.90
			GLOB=3.87	2.80-5.10
			Blood Test	Ref. Range
			HCT=36.6 (L)	37.0-55.0
			HGB=12.3	12.0-18.0
			MCHC=33.6	30.0-36.9
			WBC=17.8 (H)	6.0-16.9
			GRANS=15.2 (H)	3.3-12.0
			% GRANS=85%	
			L/M=2.6	1.1-6.3
			%L/M=15%	
			PLT=204	175-500
			Retics=1.3%	
			Urinalysis	
			Leukocytes=Neg	
			Creatinine=200	
			Ketone=Neg	
			Blood pH=8.5	

	Vet	Description of Examination and Treatment	Test Results	Reference Range
			Glucose=Neg	
			Bilirubin= +	
			Protein=100	
			Specific	
			Gravity=1.043	
			Clear Yellow	
			w/Normal Odor	
12/17/01	RG	Exam & Board Day Only	Weight: 31.70	
12/1/01	1.0	Bile Acid Pre&Post Study		
			Bile Acids Test	Normal
			Pre Meal=81.8 (H)	<13
			Post Meal=152.6	<25
			(H)	<25
12/20/01	7.7.7	Dediemenhie (Genemenhie Tindi		
12/20/01	AV	Radiographic/Sonographic Findi		
		An abdominal ultrasound was pe		_
		small and difficult to image.		
		hypoechoic and coarse in echoo		
		were not seen. The gall bladde		
		liver lobe measured approximat		
		cranial to caudal. There was a		
		present throughout the abdomin		
		seen in the spleen. There was		
		differentiation in both the ri	ght and left kidneys.	Adrenal
		glands were not visualized. Th	e urinary bladder appe	eared
		normal. Gastrointestinal lesio	ons were not identified	l. Intra-
		abdominal lymhadenopathy was n	ot seen. There was uni	formly
		relatively hyperechoic mass no		-
		associated with the left corsa		
		to the peritoneum. The peritor		
		abdominal cavity around this m		
		cutaneous lipoma.		1001000000 4
		cacaneous ripona.		
		Radiographic/Sonographic Concl	usions:	
		Small diffusely hypoechoic hep		ossibility
		of hepatic fibrosis and vaculo		
		-	-	
		should be considered. Moderate	e volume abdominal ellu	ISION. MIIA
		chronic renal changes.		
		Recommendations:		
		Symptomatic management for liv		ed. If the
		Symptomatic management for liv patient is non-responsive to m	nedical management or	
		Symptomatic management for liv patient is non-responsive to m histopathology is desired, an	edical management or ultrasound guided biop	osy could be
		Symptomatic management for liv patient is non-responsive to m histopathology is desired, an obtained under heavy sedation/	edical management or ultrasound guided biop anesthesia. A coagulat	osy could be
		Symptomatic management for liv patient is non-responsive to m histopathology is desired, an	edical management or ultrasound guided biop anesthesia. A coagulat	osy could be
12/20/01	MH	Symptomatic management for liv patient is non-responsive to m histopathology is desired, an obtained under heavy sedation/	edical management or ultrasound guided biop anesthesia. A coagulat	osy could be
12/20/01	MH	Symptomatic management for liv patient is non-responsive to m histopathology is desired, an obtained under heavy sedation/ would be suggested prior to bi	edical management or ultrasound guided biop anesthesia. A coagulat opsy.	osy could be
12/20/01	MH	Symptomatic management for liv patient is non-responsive to m histopathology is desired, an obtained under heavy sedation/ would be suggested prior to bi Phone Consultation	edical management or ultrasound guided biop anesthesia. A coagulat opsy. ent had ultrasound and	osy could be tion profile
12/20/01	MH	Symptomatic management for live patient is non-responsive to me histopathology is desired, and obtained under heavy sedation/ would be suggested prior to bi Phone Consultation Owner called to say that patient	edical management or ultrasound guided biop anesthesia. A coagulat opsy. ent had ultrasound and of fluid in the abdomer	osy could be ion profile
12/20/01	МН	Symptomatic management for live patient is non-responsive to me histopathology is desired, and obtained under heavy sedation/ would be suggested prior to bi Phone Consultation Owner called to say that patient ultrasonographer found a lot of	edical management or ultrasound guided biop anesthesia. A coagulat opsy. ent had ultrasound and of fluid in the abdomer of in immediate distres	osy could be ion profile . Owner was s because
12/20/01	МН	Symptomatic management for live patient is non-responsive to me histopathology is desired, and obtained under heavy sedation/ would be suggested prior to bi Phone Consultation Owner called to say that patien ultrasonographer found a lot of concerned that patient would be of the large amount of fluid.	edical management or ultrasound guided biop anesthesia. A coagulat opsy. ent had ultrasound and of fluid in the abdomer be in immediate distres Told owner that we do	a. Owner was because not usually
12/20/01	МН	Symptomatic management for live patient is non-responsive to me histopathology is desired, and obtained under heavy sedation/ would be suggested prior to bi Phone Consultation Owner called to say that patient ultrasonographer found a lot of concerned that patient would be of the large amount of fluid. drain that fluid unless patient	edical management or ultrasound guided biog anesthesia. A coagulat opsy. ent had ultrasound and of fluid in the abdomer be in immediate distres Told owner that we do ut is in immediate dist	a. Owner was because not usually
		Symptomatic management for live patient is non-responsive to mention histopathology is desired, and obtained under heavy sedation/ would be suggested prior to big Phone Consultation Owner called to say that patien ultrasonographer found a lot of concerned that patient would be of the large amount of fluid. drain that fluid unless patient Draining fluid decreases blood	edical management or ultrasound guided biog anesthesia. A coagulat opsy. ent had ultrasound and of fluid in the abdomer be in immediate distres Told owner that we do ut is in immediate dist	a. Owner was because not usually
12/20/01	MH	Symptomatic management for live patient is non-responsive to mention histopathology is desired, and obtained under heavy sedation/ would be suggested prior to bia Phone Consultation Owner called to say that patien ultrasonographer found a lot of concerned that patient would be of the large amount of fluid. drain that fluid unless patient Draining fluid decreases blood Office Visit, Follow-Up	edical management or ultrasound guided biop anesthesia. A coagulat opsy. ent had ultrasound and of fluid in the abdomer be in immediate distres Told owner that we do at is in immediate dist l protein levels.	osy could be tion profile a. Owner was as because not usually
		Symptomatic management for live patient is non-responsive to mention histopathology is desired, and obtained under heavy sedation/ would be suggested prior to bit Phone Consultation Owner called to say that patien ultrasonographer found a lot of concerned that patient would be of the large amount of fluid. drain that fluid unless patient Draining fluid decreases blood Office Visit, Follow-Up Amoxicillin 250 mg caps 1 table	edical management or ultrasound guided biop anesthesia. A coagulat opsy. ent had ultrasound and of fluid in the abdomer be in immediate distres Told owner that we do at is in immediate dist l protein levels. et 2x/day for 20 days	osy could be ion profile a. Owner was as because not usually cress.
		Symptomatic management for live patient is non-responsive to mention histopathology is desired, and obtained under heavy sedation/ would be suggested prior to bit Phone Consultation Owner called to say that patien ultrasonographer found a lot of concerned that patient would be of the large amount of fluid. drain that fluid unless patient Draining fluid decreases blood Office Visit, Follow-Up Amoxicillin 250 mg caps 1 table Adequin 0.6 cc 2x/week for 3 we	edical management or ultrasound guided biop anesthesia. A coagulat opsy. ent had ultrasound and of fluid in the abdomer be in immediate distres Told owner that we do at is in immediate dist l protein levels. et 2x/day for 20 days	osy could be tion profile a. Owner was as because not usually tress.
		Symptomatic management for live patient is non-responsive to mention histopathology is desired, and obtained under heavy sedation/ would be suggested prior to bit Phone Consultation Owner called to say that patien ultrasonographer found a lot of concerned that patient would be of the large amount of fluid. drain that fluid unless patient Draining fluid decreases blood Office Visit, Follow-Up Amoxicillin 250 mg caps 1 table	edical management or ultrasound guided biop anesthesia. A coagulat opsy. ent had ultrasound and of fluid in the abdomer be in immediate distres Told owner that we do at is in immediate dist l protein levels. eet 2x/day for 20 days weeks, then 0.6 cc 1x/m	osy could be tion profile a. Owner was as because not usually tress.

Date	Vet	Description of Examination and Treatment	Tes	t Results	Reference Range
1/05/02	MH	Check-up, follow up blood work		ght: 26.80 p: 102.00	
		Patient doing much better.	2 0	P. 101.00	
		Eating 1/d well. Abdomen not	Blo	od Test	Ref. Range
		bloated. Patient on Milk	ALK	P=79	14-111
		Thistle. Liver enzymes good.	GGT		1-12
		Albumin increased.		=2.43 (L) =113 (normal)	2.60-3.90 12-130
		Continue l/d diet Continue Milk Thistle Start Antioxidants (Vitamin E and selenium)			12 100
		Consider Ursodeoxycolic acid			
1/12/02	RG	Check-up, follow up blood work		Weight: 27	
		Owner complained that Norman is still vomiting, having diarrhea is still bloated and has a ravenous appetite. Norman really seems to be doing	,	Blood Test ALKP=90 GGT=4 ALB=2.22 (L) ALT=91 BUN=4.4 (L)	Ref. Range 14-111 1-12 2.60-3.90 12-130 16.0-36.0
		well as possible. It seems now real dx is Cirrhosis of the live and there is very little else we can really do. A liver transplay only "real" solution.	the er e	CREAT=0.65 (L) GLU=108.3 TP=6.17	0.80-2.40 77.0-125.0 5.70-8.90
		Prognosis is poor, only a few weeks to a month.			
		Increase amount of (1/d) food to 2 can / day Amoxicillin 250 mg caps 1 table 2x/day for 20 days Start Ursodiol Tabs 250mg ½ table 1x/day for liver disease	t		
1/14/02	0	<mark>START DIET</mark> - Sunny's Miracle Die Tonic <mark>STOP Amoxicillin</mark>	et +	Ester C, Teeter	Creek Liver
2/11/02	RG	Ursodiol Tabs 250mg ½ tablet 1x	/da		
2/11/02	КG	UISOUIUI TADS 200Mg 2 LADIEL IX	/ uay		

Date	Vet	Description of Examination and Treatment	Test Results	Reference Range
3/9/02	MH	Re-Check Blood Work	Weight: 28	
5, 5, 62		Blood work looks good. Recommend Denosyl sd4	Complete Blood ct WBC=18.0 (H) RBC=5.8 HGB=12.6 PCV=38 MCV=65 MCH=21.6 MCHC=33 Neutrophils%=71 Absolute neut=12780 (H) Lymphocytes%=13	Ref. Range 6.0-16.9 4.8-9.3 12.1-20.3 36-60 58-79 19-28 30-38 60-77 2060-10600 12-30 690-4500
			Absolute lymph=2340 Monocytes%=4 Absolute monos=720 Platelet estimate adequate Superchem	690-4500 3-10 0-840 Ref. Range
			AST=46 ALT=62 T.Bili=0.2 Alk Phos=127 GGT=9 TP=6.3 ALB=2.7 GLOB=3.6 CHOL=122 BUN=18	Itel: Itel: 15-66 12-118 0.1-0.3 5-131 1-12 5.0-7.4 2.7-4.4 1.6-3.6 92-324 6-25
			CREAT=0.8 (L) PHOS=3.9 Calcium=10.3 GLU=101 Amylase=741 Lipase=347 Sodium=149 Potassium=4.2 Na/K ratio=35	4-27 2.5-6.0 8.9-11.4 70-138 290-1125 77-695 139-154 3.5-5.5 27-38
			Chloride=114 CPK=47 (L) Triglyceride=69 Osmolality, calculated=310 Magnesium=1.7 Corrected Calcium=11.1	102-120 59-895 29-291 277-311 1.5-2.5

Date	Vet	Description of Examination and Treatment	Test Results	Reference Range
3/25/02	МН	Patient vomited all his food last night. Patient was having diarrhea, seems listless and not wanting to eat now.	Weight: 26 Temp: 101.70	
		General Appearance: Quiet Integumentary: Normal Musculoskeletal: Normal Circulatory: No problem noted Respiratory: Normal Digestive: Normal Teeth: WNL Gentourinary: Normal Eyes: WNL Ears: WNL Neurosystems: Good Lymphnodes: Normal Mucous Membranes: Normal Reproductive system: WNL		
		Rule-outs: final liver failure gastroenteritis		
		IV fluid therapy with B- complex added for the night, if not improved, will do bloodwork.		
		Patient ate breakfast brought by owner, seemed brighter, will send home.		
1/22/02	MH	Ursodiol Tabs 250mg ½ tablet 1x,	/day	
4/24/02	DF	Second Opinion Consultation, exam, and review of Taurine 500mg 2x/day for liver a L-Carnitine 500mg 2x/day for liver Alpha-Lipoic acid (ala) 100mg 12 Lower Vitamin E from 400 to 200 Double dose of Milk Thistle from Add Turmeric 1 tsp daily to his Switch from human vitamin to Can antioxidants Switch from human digestive enzy	and cognitive ver and cognitive x/day for cognitive IU - d alpha form m 150mg 1x/day to 1. food nine Plus Multi-Vit.	50mg 2x/day amin with

Date	Vet	Description of Examination and Treatment	Test Results		Reference Range
7/2/02	DF	Patient vomiting and severe diarrhea	General Health Profile ALKP=113		Ref. Range
		1.0 PENICILLIN INJ 1.0 CENTRINE INJ	ALT=30 BUN=11.4		10—100 7.0—27.0
			CREA=0.70		0.50-1.80
		CHEM6 + CBC	GGT=1 GLU=106.1		0—7 77.0—125.0
			K=4.58 Cl=116.2		3.50-5.80 109-122
			Blood Test HCT=46.3 HGB=15.1 MCHC=32.6		Ref. Range 37.0-55.0 12.0-18.0 30.0-36.9
			WBC=20.9 (H)		6.0-16.9
			GRANS=18.7 (H)		3.3-12.0
			% GRANS=89% L/M=2.2		1.1-6.3
			%L/M=11%		
			PLT=287 Retics=0.6%		175-500
8/27/02	DF	Comprehensive Exam	Weight: 24.3		
9/10/02	DF	Patient in Pain	Weight: 25.5		
		Re-Check Exam			
		Torbutrol Tabs 5mg one every 8 hours for arthritis pain			
9/11/02	DF	Patient crying, acting painful, the back left leg, abdomen is su		Temp:	101.6
		Gave 1 torbutrol last pm - cause for several hours then pain see after meds worn off. Increased a	med to return		
		Keep for Rads of spine / left le	eg / pelvis.		
		Rads - Severe proliferation ost both coxofemoral joints Luxar right femoral head. Irregular jo of femoral intercondylan area (2	tion (7x?) of pint surface		
		Severe calcified discs, but do a evidence of IVD rupture / hernia			
		Increased gas in stomach / inter	stinal loops.		
		Returned Torbutrol tabs.			
10/7/02	DF	Re-Check Exam	Weight: 24		

Date	Vet	Description of Examination and Treatment	Test Results	Reference Range
11/11/02	DF	Re-Check Exam	Weight: 25.4	
		Urinalysis and sediment Chemistry (6 panel)	<u>General Health</u> <u>Profile</u> ALKP=78 ALT=30 BUN=14.4 CREA=1.08 GGT=1 GLU=101.0 Na=153.8 K=5.01 Cl=117.8	Ref. Range 23-212 10-100 7.0-27.0 0.50-1.80 0-7 77.0-125.0 144-160 3.50-5.80 109-122
			Urinalysis Urobilinogen=normal Glucose=neg Nitrite=neg Leukocytes=net Ketone=Neg Blood=Neg pH=6 Bilirubin ++ Protein=+/30 Specific Gravity=1.025 Color=Yellow Appearance=Hazy	
2/11/03 4/24/03	DF	Re-Check Exam Grooming	Weight: 24.6 Weight: 24	
5/22/03	DF	Re-Check Exam CBC + CHEM25	CBC HCT=34.7 (L) HGB=12.2 MCHC=35.2 WBC=8.4 GRANS=6.6 % GRANS=76% Neut=5.3 EOS=1.1 L/M=2.0 %L/M=24% PLT=201 CHEM25 ALK Phosphatease=58	Ref. Range 37.0-55.0 12.0-18.0 30.0-36.9 6.0-16.9 3.3-12.0 2.8-10.5 0.5-1.5 1.1-6.3 175-500 Ref. Range 10-150
			ALT (SGPT)=59 AST (SGOT)=36 CK=82 GGT=6 Albumin=2.9 Total Protein=7.2 Globulin=4.3 Total Bilirubin=0.2 Direct Bilirubin=0.0 BUN=17 Creatinine=0.9	$5-60 \\ 5-55 \\ 10-200 \\ 0-14 \\ 2.5-3.6 \\ 5.1-7.8 \\ 2.8-4.5 \\ 0.0-0.4 \\ 0.0-0.1 \\ 7-27 \\ 0.4-1.8 $

Date	Vet	Description of Examination and Treatment	Test Results	Reference Range
			Cholesterol=155	112-328
			Glucose=82	60-125
			Calcium=10.7	8.2-12.4
			Phosphorus=3.8	2.1-6.3
			TCO2 (Bicarbonate)=18	17-24
			Chlorine=120 (L)	105-115
			Potassium=4.6	4.0-5.6
			Sodium=152	141-156
			A/G ratio=0.7	0.6-1.1
			B/C ratio=18.9	
			Indirect Bilirubin=0.2	0.0-0.3
			NA/K ratio=33	27-40
			Anion Gap=19	12-24
			Ammonia=38	0-169

"We have many effective and potent drugs available in our armamentarium. As the activity and potency of drugs increased, so has the risk of serious adverse effects. Rational use of drugs includes a consideration for the potential adverse effects, especially serious toxicity, and the ability to recognize adverse effects.

Do not dismiss an unexplained disorder in a patient until a drug-induced cause has been ruled out. The Greek physician Hippocrates (440 - 375 BC) provided an ethical basis for the practice of therapeutics. He recognized that a physician sometimes does more harm than good. (This applies to veterinarians as well.)

The advice of Hippocrates, "primum non nocre" (translated: above all, do no harm) reminds us that it is better to administer no therapy at all than to administer therapy that might be harmful."

- Papich, Mark G. DACVCP - (Diplomate, American College of Veterinary Clinical Pharmacology) Adverse Drug Reactions of Clinical Significance. The Central Veterinary Conference August 23-26, 2003. TICKLE-BLAGG ANIMAL HOSPITAL 1100 HWY 80 SAN MARCOS TX 78666 IDEXX VETERINARY SERVICESOnline results at www.vetconnect.comWest Region800-444-4210East/Central/Colorado808-433-9987

512-353-1871 ACCOUNT #: 35261

PATIENT SMASAL NURMAN	REQ #: 14008725 AGE: 12 SEX: M SPECIES: CANINE BREED: SPAN COCK	LAB # : COLLECTED : RECEIVED : REPORTED :	D1678904 05/24/2003 05/24/2003 16:05 05/25/2003 05:02
DOCTOR: FORSTER TEST PROCEDURES	RESULTS	REFERENCE RA	NGE UNITS
CHEM 25	112002-10		
ALX. PHOSPHATASE	58	10-150	107%.
ALT (SGPT)	59	5-60	1071.
AST (SGOT)	36	5-55	IU/ 1.
CK	82	10-200	1075.
GCT	6	0-14	10/1.
ALBUM IN	2.9	2.5-3.6	g/dl.
TOTAL PROTEIN	7.2	5.1-7.8	g/di.
GLOBUL IN	4.3	2.8-4.5	g/dl.
TOTAL BILIRUBIN	0.2	0.0-0.4	mg/dL
DIRECT BILIRUBIN	0.0	0.0-0.1	mg/dL
BUN	17	7-27	mg/dL
CREATININE	0,9	0.4-1.8	mg/dl
CHOLESTEROL	155	112-328	mg/dL
GLUCOSE	82	60-125	mg/dl.
CALCIUM	10.7	8.2-12.4	mg/dL
PHOSPHORUS	3.0	2.1-6.3	mg/dL
TCO2 (BICARBONATE)	18	17-24	mEq/L
CHLORIDE	120 (11)	105-115	mEq/L
POTASSIUM	4.6	4.0-5.6	mEg/L
SODIUM	152	141-156	mEq/L
A/G RATIO	0.7	0.6-1.1	
B/C RATIO	18.9		1 11
INDIRECT BILIRUBIN	0.2	0-0.3	mg/dL
NA/K RATIO	33	27-40	- 17
ANION GAP	19	12-24	mEq/L
AMMONIA	38	0-169	ug/dL

SMASAL, NORMAN

*** FINAL REPORT ***

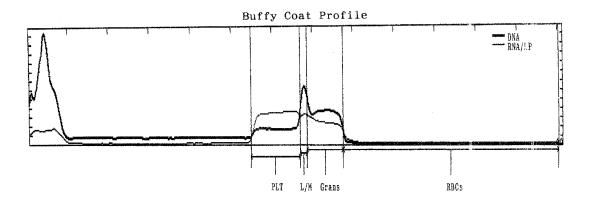
PAGE 1 OF 1

Tickle-Blagg Animal Hospital 1100 Highway 80 San Marcos, TX 78666 512-353-1871

Ver: 6.9 Date : 22-May -2003 02:18PM

Species	:	Ger Canine >8yr
Patient	:	Norman
Client	:	Cyndi Smasal

Test	Result		s	Reference Range		Indicator		
						LOW	NORMAL	HIGH
HCT	=	34.7	%	37.0 -	55.0		2	
HGB	=	12.2	g/dl	12.0 -	18.0			L
MCHC	=	35.2	g/dl	30.0 -	36.9			
WBC	=	8.4	x109/L	6.0 -	16.9			
GRANS		6.4	x109/L	3.3 -	12.0			
%GRANS	=	76	%					
NEUT	~	5.3	x109/L	2.8 -	10.5			L
EOS	~	1.1	x109/L	0.5 -	1.5			
L/M	=	2.0	x10 ⁹ /L	1.1 -	6.3			
%L/M	=	24						
PLT	=	201	x109/L	175 -	500			



Appendix E: Quick-Start Guide

This Quick Start Guide has been written to help your dog get on the road to healing. I'm sure you're worried about your dog. You're looking for some quick answers. You don't know if this will really work. You don't know where to start.

I'm about to hand you the abbreviated version of the alternative treatment I used to heal my dog, Norman. This newly designed Quick Start Guide has been written to guide you through the initial crisis when your dog is first diagnosed – letting you get started today!

These pages contain the exact information you need right now to get the healing process started. I'll walk you through the critical first steps. I'll refer you to sections in the book for further information.

Once you're through the initial crisis, you should read the entire book. The healing process for liver disease is not a one-shot treatment. There's a lot more to it than what's in this guide.

So, get ready. I'm going to go through this information quickly, step-by-step, to give you the specific actions you'll need to get through this critical stage of liver disease.

Step 1 – Gather Data

1) What symptoms are present?

- □ Vomiting
- 🗆 Diarrhea
- \Box Eating unusual things
- \Box Frequent urination or accidents
- \Box Drinks a lot of water
- □ Depression or lethargy
- \Box Stopped eating
- \Box Very hungry
- □ Orange urine
- □ Pale gray stools or orange/yellow stools
- \Box Jaundice the whites of the eyes, skin and gums turn yellow.
- \Box Lost weight
- \Box Gained weight
- \Box Swollen belly filled with fluid
- □ Behavioral changes: seizures, aimless pacing or circling, head pressing, acting needy
- □ Unexplained bleeding or prolonged bleeding
- \Box Bad breath
- \Box Strong "dog" odor or bad smell

2) What are the test results? (How bad and how far along?)

- Blood Test Results for liver disease, end stage liver failure, cirrhosis
 - □ High Liver enzymes (ALT , AST, GGT)
 - \Box Bile Acids
 - □ Bilirubin
 - \Box Low Cholesterol
 - □ Low Potassium
- Ultrasound
 - \Box Small Liver
 - \Box Enlarged Liver
 - \Box Mass in Liver
 - $\hfill\square$ Shunts on Liver
 - \Box Scar Tissue
 - \Box Percentage of Liver affected: _

- □ Cancer
- □ Abscesses
- □ Abnormal Blood Supply
- □ Gall Bladder
- □ Bile System

- Biopsy
 - \Box Condition of Liver Cells
 - □ Apparent Cause

3) What is the prognosis?

- $\hfill\square$ Less than a week
- $\hfill\square$ One to two weeks
- \Box Less than a month
- \Box Three to six months
- \Box Over six months

4) What is the diagnosis?

- □ None
- □ Liver Disease
- \Box Cirrhosis
- □ Hepatitis
- □ Other:_____

5) What is medical history?

NOTES:

- \Box Vaccinations
- \Box Blood Tests
- \Box Medications
- \Box Heart Worm control medications
- \Box Flea & Tick control medications
- \Box Steroid treatments
- \Box Pain treatments
- □ Seizure treatments
- □ Surgery
- □ Infections
- Dental Problems
- □ Dental Cleaning
- □ Digestive Problems
- □ Arthritis
- \Box Arthritis treatments
- \Box Genetic ailments
- \Box Other

6) What is the recommended treatment?

- □ None
- \Box Medications
 - \Box Antibiotics for infections
 - □ Anti-Inflammatory Steroids
 - □ Liver Support SAM-e
 - $\hfill\square$ Bile System Ursodiol (form of bile)
 - \Box Water Retention Lasix
 - □ Digestive Aid Pepcid
 - □ Others
- \Box Stop taking harmful medications
- □ Diet
 - □ Same
 - □ Prescription Diet
 - $\hfill\square$ Natural or healthy homemade diet
- \Box Supplements
 - □ None
 - □ Liver (Hepato) Support (Milk Thistle and others)
 - \Box Antioxidants like Vitamin E
 - \Box Others
- \Box Treat Symptoms
- \Box Treat the Whole System

Step 2 – Where to Start

If your dog has blood test results with high liver enzymes:

...Start by giving your dog Milk Thistle and Vitamin E in the following dosages:

- Milk Thistle 100-200mg per 10lb, divided into 2-3 doses per day (concentrated extract, 80% Silymarin)
- Vitamin E 100 IU per day

Then read Chapter 1 and Chapter 2 to understand liver disease and the alternative treatment outlined in the book.

If your dog has four or more of the following symptoms, and high liver enzymes:

Common Symptoms:

- Vomiting with or without blood.
- Diarrhea with or without blood.
- Eating unusual things.
- Frequent urination and increased water intake.
- Depression or lethargy doesn't want to play anymore, lays in a spot away from you and family.
- Loss of appetite or ravenous appetite.
- Orange urine.
- Pale gray stools or orange/yellow stools.
- Jaundice the whites of the eyes, skin and gums turn yellow.
- Chronic weight loss or wasting.
- Ascites swollen belly filled with fluid.
- Severe neurological signs behavioral changes, seizures, aimless pacing or circling, head pressing. (May be associated with mealtime.)
- Unexplained bleeding or prolonged bleeding (e.g. after nail trimming or drawing blood).

...In addition to Milk Thistle and Vitamin E, give your dog:

- Vitamin B complex 50mg 2 times a day
- Canine Plus Multi-Vitamin with Antioxidants (or 1/2 of human Multi-Vitamin per day)
- Distilled water instead of tap water for the first 4 weeks, then use filtered water

Then read Chapter 3 and Chapter 4 to learn how to develop a healthy diet for treating liver disease.

If your dog is taking Antibiotics, Steroids or any other Antiinflammatory medications:

...Stop or quickly taper off these medications. In addition to Milk Thistle and Vitamin E, add Omega-3 Fatty Acids to provide Antioxidants, Anti-Inflammatory support, and help liver, joint, and brain functions.

Of course, check with your veterinarian about the right dosage for your dog and ask about starting additional supplements listed in Chapter 5.

Again, make sure you read Chapter 3 and Chapter 4 to give your dog the food that heals the liver.

If your dog is taking Heart Worm or Flea control medications:

...Stop giving your dog these medications and do NOT give your dog any Vaccinations. Then review the list of other items to avoid that can be found at the end of Chapter 5 and make necessary changes.

Again, make sure you give your dog Milk Thistle and Vitamin E to remove harmful toxins and improve liver function. As well as read Chapter 3 and Chapter 4 to give your dog a healthy diet.

If your dog is NOT eating:

...Start by reading Chapter 3 to get ideas on what type of food is good for your dog, then proceed to Chapter 4 for recipes to make first. Try to find anything in these chapters that your dog will eat.

Once you've found the type of food your dog will eat, you'll be ready to begin creating your own recipes. Review Chapter 1: "Norman's Next Crisis..." and "Trial and Error..." sections. These sections will help you learn how to identify food items to avoid.

Then read Chapter 7: "Gastritis or Stomach Problems" to better understand common stomach problems. Look for clues to identify the underlying cause and appropriate treatment. A digestive aid might be needed to treat the upset stomach before your dog begins to eat again. Add digestive enzymes to each meal to aid digestion. Add slightly cooked potatoes, sweet potatoes, or oatmeal to each meal to remove toxins from the bowels.

In addition to Milk Thistle and Vitamin E, give your dog Vitamin B complex to stimulate the appetite. If your dog is taking Antibiotics or SAM-e these may cause nausea and lack of appetite. Stop giving your dog these medications, temporarily, to see if they are causing the appetite problem.

However, if you still can't get your dog to eat over the next 24 hours, you should see your veterinarian to determine why and avoid dehydration.

If your dog is Hungry all the time:

...Start by reading Chapter 3 to get ideas on what type of food is good for your dog, then proceed to Chapter 4 for recipes to start with. Make sure you are feeding your dog enough food in multiple small meals. If you are only feeding your dog two or three times a day, add another small meal either at night before bed or in the middle of the day.

Then evaluate the amount of protein you are putting in each meal. Slowly add more protein to each meal. Of course, be sure you are giving your dog top quality sources of protein like: low fat cottage cheese, low fat yogurt, cottage cheese, ricotta cheese, eggs, or top grade boiled chicken.

Again, make sure to give your dog Milk Thistle and Vitamin E to improve liver function.

If your dog is vomiting (at night or in the morning before eating):

...Start by reading Chapter 3 to get ideas on what type of food is good for your dog, then proceed to Chapter 4 for recipes to start with. Find a recipe that your dog will eat.

Once you've found or created your own recipe. Review Chapter 1: "Norman's Next Crisis..." and "Trial and Error..." sections. These sections will help you learn how to identify problem foods.

Then read Chapter 7: "Gastritis or Stomach Problems" to better understand common stomach problems. Look for clues to identify the underlying cause and appropriate treatment. A digestive aid might be needed to treat the upset stomach. Add digestive enzymes to each meal to aid digestion.

Ask your veterinarian about your dog's Bile System and if additional bile is needed to help with digestion. Your veterinarian may need to give your dog a medication like Ursodiol (or other form of bile) or a prescription to get it from a pharmacy.

Step 3 – Care for Your Sick Dog

While your dog is in crisis, your love and attention are some of the most important factors in your dog's recovery. Here are the critical areas that need your attention.

1) Good Veterinary Care

Now is the time to discuss complementary and alternative treatments like home-cooked diet and supplements with your veterinarian. During the course of treating liver disease, you will be seeing your veterinarian on a regular basis. Make sure you get the type of treatment you want your dog to receive and the answers to your questions.

2) Watching symptoms and looking out for signs of getting worse

At this critical stage of liver disease things can change for the better or for the worse. Watch your dog like a hawk. Review Chapter 6 "Communication from Your Dog" to learn what to look out for. Take notes and track your dog's progress.

3) Potty Patrol

Your dog's stool is a major indicator of health and a diagnostic tool. Get in the habit of watching your dog potty. Notice the amount, color, consistency, odor (if unusual) and frequency of your dog's stool. Review Chapter 6 "Potty Patrol" and "What diarrhea tells you about your dog" to learn more about what each of the above indicators tell you about your dog's recovery.

4) Signs of Progressing Liver Disease

If the original symptoms do not go away, and the following symptoms appear, the liver is not responding or there could be other problems.

- Depression or lethargy
- Vomiting and diarrhea
- Swollen belly (Ascites)
- Abdominal pain (dog is hunched over)
- Increased thirst and increased urination
- Jaundice (yellow eyes, gums, tongue, or skin)
- Loss of appetite and weight loss
- Blood in urine or stool
- Seizures, confusion, disorientation, head pressing, blindness, or personality changes

Review Chapter 6 "Signs of Progressing Liver Disease" to learn more about each symptom. Then go back and read the rest of Chapter 6 to learn more about caring for your sick dog.

Of course, check with your veterinarian if any of these symptoms appear.

5) Take care of yourself

Your dog's health is affected by your emotions and mental state. So, it is very important that you tend to your own mental and physical health.

- Stay positive and eliminate as much stress as you can from your life.
- Be as relaxed, confident and as calm as possible.
- When you are upset, avoid interacting with your dog.
- Take breaks and rest when you need it to gain a fresh perspective.

Review Chapter 6 "Emotional Health" to learn more about how your emotions affect your dog. Then go back and read the rest of Chapter 6 to learn more about caring for your sick dog.

Step 4 – Check Results

The purpose of taking notes, tracking progress, and checking blood levels is to increase the chance of a full recovery. Symptoms and blood levels will tell you whether the treatment is making things better or worse. Frequent blood tests give you feedback to make adjustments right away if the treatment is not working. It also gives you comfort and encouragement when things are getting better.

- Your veterinarian will run regular blood tests to track progress
- Your note of symptoms and stool indicators will tell you when to get further treatment from your veterinarian
- Your regular check-up examination will monitor your dog's overall health and track progress
- Your note of behaviors, diet and appetite will help you identify food problems

Read Chapter 6 "How to Give Your Dog a Quick Check-up" to learn about other health indicators.

Of course, this step is on-going. In the beginning you will check results more frequently. But later, as the treatment progresses and the crisis ends, you will perform these check-ups less frequently.

Important Note: Do not use this guide as a substitute for reading the book or treatment by a veterinarian. Rather, use this information to get through the initial crisis in conjunction with Veterinary care. Once you are past this crisis, go back and read the entire book. This is only a summary of the alternative treatment.

Conclusion

Inspiration to put together this Quick Start Guide came from previous *Hope For Healing* book readers. While I continue to hear positive reports about the alternative treatment and information that I share in my book, I know that many of you sometimes feel overwhelmed and don't know where to start. It's feedback from people like you that has compelled me to put together this Quick Start Guide.

I want to be absolutely certain that you have all the information and resources you need to care for the dog that you love....including the benefit of my personal guidance in the form of this Action Plan.

I pray that you have as much success as I have. I encourage you to ask your veterinarian questions and do your own research. Don't give up without trying. And take good care of yourself and your dog. You'll feel better knowing you did everything you could to care for, save or prolong your dog's life.

Appendix F: How to Make Eggshell Calcium Powder

Ingredients/Equipment:

1 carton of organic "pasture raised" chicken eggs (any size)

- 1 stock pot
- 1 coffee grinder
- 1 small mason jar with a secure and clean lid

Directions:

- 1) Use your eggs normally. Rinse them in water after you use them. Remove any whites that might stick but don't remove the membrane as these have nutrients.
- 2) Keep the shells in the fridge in an empty carton until you have a dozen shells.
- 3) Once you have a dozen shells, fill a stock pot with about 6 cups of filtered water and bring to a boil.
- 4) Carefully put your eggshells into the water. This is to kill any harmful pathogens.
- 5) Let cook in the water for 10 minutes.
- 6) Drain the eggshells.
- 7) Spread the shells on baking sheet and let dry overnight.
- Completely dry out and sterilize the shells by cooking them in the oven at 300° F for 10 minutes. This helps to make them very brittle and easy to grind into a powder.
- 9) Once they are dried out you can put the shells in the coffee grinder and run it until they are pulverized into a powder. Make certain there are no gritty pieces.
- 10) Store in a tightly sealed Mason jar in the fridge. If the eggshells are kept cool and dry they should last for a long time. If they change color or look moldy then throw them out.

Amount to feed:

1 teaspoon of ground eggshells contains about 800-1000 mg of calcium along with minerals like magnesium, phosphorus, potassium and sodium.

It's important to balance out the ratio of calcium and phosphorus in home cooked meals. Dogs need about 1.2 parts calcium for each 1 part phosphorus (1.2:1).

For example, the Dr. Dodd's Liver Cleanse Diet needs about ¹/₂ tsp of eggshell powder for every 8 oz of cod fish fillet. A typical cod fish fillet is about 3 oz. If you are following my recipe of 2 cups of cod fish fillet, then you would add 1 tsp of the eggshell powder to the entire recipe and mix it all together and then divide it up for feeding individual meals. You will NOT put the eggshell powder into individual meals. Add the eggshell powder to an entire batch of food.

Resources and References

Products

- Canine Plus by Vetri-Science[™] Multi-Vitamin is available online. Vetri-Science[™] has several multi-vitamins to choose from: https://www.vetriscience.com/dog/multivitamins.html
- 2) Liver Tonic by Teeter Creek Herbs, http://www.teetercreekherbs.com/formulas/lvrtone.html
- 3) The Missing Link® by Designing Health, http://www.missinglinkproducts.com/

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- 4) Yarnall, C., <u>Natural Dog Care: A Complete Guide to Holistic Health Care for Dogs</u>, Journey Editions, 1998
- 5) Griffin, J., Carlson, L., <u>Dog Owner's Home Veterinary Handbook 3rd Edition</u>, Howell Book House, 2000
- 6) Yeager, S., <u>The Doctors Book of Food Remedies</u>, Rodale, 1998
- 7) Balch, P., Balch, J., *Prescription for Nutritional Healing 3rd Edition* Avery, 2000

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- 3) Decker Weiss: NMD, AACVPR, "Liver Health Milk Thistle," Ask the Doctor
- 4) Chocolate Chip Creations, "Pets Need Wholesome Food Also A Hassle Free Guide to Wholesome Natural Pet Food," <u>http://www.pet-grub.com</u>
- The Senior Dogs Project, "A Review of Signs of a Potentially Life-threatening Reaction to Rimadyl," <u>http://www.srdogs.com/Pages/rimadyl.ade.steps.html</u>
- Kennalea B. Pratt, "Sunny's Miracle Diet," <u>https://hopeforhealing.com/sunnys-miracle-diet-for-liver-disease-in-dog/</u>
- W. Jean Dodds, DVM, "Dr Dodd's Liver Cleansing Diet," <u>https://hemopet.org/cleansing-diets-2/</u>
- 8) Janet Tobiassen Crosby, DVM, "How is a Bile test performed, and what does it mean?" http://vetmedicine.about.com/od/diseasesandconditions/f/FAQ_bileacidtst.htm
- 9) Dr. Sara Ochoa, DVM, a veterinarian at Whitehouse Veterinary Hospital https://www.whitehousevethospital.com/

Canine Liver Disease Resources

- 1) Dogs Naturally Magazine, guide to blood test results <u>https://www.dogsnaturallymagazine.com/blood-tests-your-dog-needs/</u>
- 2) Long Beach Animal Hospital website dedication to Liver Disease. Includes easy to read explanations and helpful picture illustrations. <u>http://www.lbah.com/liver.htm</u>
- 3) Information from Dr Michael Richards on Liver Disease in Dogs. http://www.vetinfo4dogs.com/dliver.html

More Resources

1) <u>Search for a Holistic Veterinarian in your area at the AHVMA (American Holistic Veterinary Medical Association) https://www.ahvma.org/find-a-holistic-veterinarian/</u>

Veterinarian & Pet Nutritionists and Fresh Food Consultants/Software

Here's a list of people/places to get help creating balanced meals for liver dog.

- Directory of American College of Veterinary Nutritionists: <u>https://acvn.org/</u>
- Directory of fresh food consultants: <u>https://freshfoodconsultants.org/</u>
- Hemopet (Dr. Dodds) <u>https://www.nutriscanlabs.org/pages/online-consults</u>
- Monica Segal <u>https://www.monicasegal.com/</u>
- Spot on Canine Nutrition <u>https://www.spotoncaninenutrition.com/</u>
- Functional Canine <u>http://www.functionalcanine.com/</u> (food intolerances)
- Dr. Rebecca L. Remillard, Veterinary Nutritional Consultations, Inc. -<u>https://www.petdiets.com/</u>

Dog Food Formulation Software to create your own recipes:

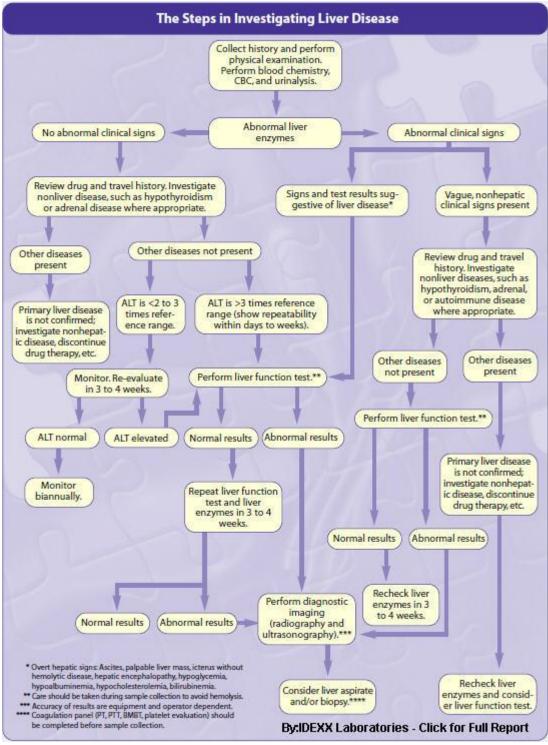
- Animal Diet Formulator (AAFCO, FEDIAF) <u>https://animaldietformulator.com/</u> (monthly subscription)
- Pet Diet Designer (NRC) <u>http://www.petdietdesigner.com/en/</u> (onetime fee)
- Balance IT has an online auto balancer to be used with their supplement http://balanceit.com

Dog Food Calorie Calculators:

- Vetcalculators Caloric Requirements https://www.vetcalculators.com/calories.html
- Simple dog calorie calculator <u>https://hopeforhealing.com/dog-calorie-calculator/</u>

Food Sensitivity/Intolerance Test Kits

- The gold standard in food intolerance tests is NutriScan <u>https://www.nutriscanlabs.org/products/nutriscan</u>
- Dog Allergy Test <u>https://www.easy-dna.com/dog-allergy-test/</u>
- 5Strands Pet Food & Environmental Intolerance Test <u>https://amzn.to/3EjPDRG</u>
- Allergy Test My Pet <u>https://amzn.to/3YJn0FA</u>
- AnimalBiome Gut Microbiome Health Test <u>https://amzn.to/3IbYpCj</u>



https://hopeforhealing.com/wp-content/uploads/diagnosing-liver-disease.pdf

About Norman

05/05/91 – 11/22/03 Norman was not my whole life, but he made my life whole.



John "Norman" City-Slicker Smasal an AKC registered Cocker Spaniel born May 5th, 1991. He weighed around 24 pounds, had big brown eyes, and silver buff hair. He loved to sing, especially "Happy Birthday". His favorite pastimes were playing with his buddy, taking naps, eating treats, chasing Calvin the cat, and going for car rides to San Antonio to visit Cyndi's parents and their dogs. He graduated with honors from Rob Carey Training School with his Basic Training degree.

You can see him on video with Cyndi when they lived at their home in Wimberley, Texas. http://www.hopeforhealing.com/NormanVideoMed.wmv

About the Author



Cyndi Smasal successfully cared for her "liver dog" Norman for two years after his initial diagnosis. She now has 20 years of experience specializing in pet nutrition and natural holistic and integrative health and wellness for dogs.

Before focusing on her love of dogs, Cyndi worked in the high-tech computer start-up world, where she spent 15 years in the Software Quality Assurance field. Cyndi has a Bachelor of Science degree in Computer Science from the University of Texas at San Antonio.

For the last 7 years, Cyndi has worked in her business Pawtastic Pet Solutions as a certified professional dog trainer and integrative pet specialist. She lives in San Antonio Texas with her Australian Labradoodle companion Jackson.

Her passion is to help pet parents have a better understanding of how to have a happy, healthy, well-behaved companion dog that they look forward to living with for a long lifetime.

Cyndi Smasal

http://www.cyndismasal.com