

Hope for Healing Liver Disease In Your Dog

20th Anniversary Edition
Revised and Updated
2024

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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Hope for Healing Liver Disease in Your Dog – 20th Anniversary Edition / Cyndi Smasal – 4th Edition

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

The 20th Anniversary edition is dedicated to pet parents who never gave up hope.

Table of Contents

Foreword.....	7
A Note of Caution.....	8
Preface.....	9
Introduction.....	11
Chapter 1 – Norman’s Story	12
Chapter 2 – Liver Disease: Diagnosis, Types, and Treatments	29
Liver Disease -- What is it?	29
Liver Disease -- Diagnosis	29
Liver Disease -- Treatments.....	30
Liver Disease -- Causes.....	32
Liver Disease -- Common Symptoms	33
Types of Liver Disease	34
Conclusion.....	37
Chapter 3 – The Liver-Friendly Diet:	38
What You Need to Know About the Liver-Friendly Diet.....	38
Nutrient Categories	39
Why the Liver-Friendly Diet Works.....	51
Why don’t Vets recommend a Homemade Diet for Liver Disease?	55
The Liver-Friendly Diet Blueprint - How to Make a Liver-Friendly Meal.....	56
Step 1: Choose Your Liver-Friendly Ingredients.....	58
Step 2: Individual Food Preparation.....	58
Step 3: Balancing Your Dog’s Bowl	62
Step 4: Adding Nutritional Supplements	67
Step 5: Dishing Out the Right Amount	68
Step 6: Nutritional Boost.....	69
Step 7: Proper Storage for Flexible Meal Preparation and Serving.....	69
Liver-Friendly Meal Examples	70
The Healing Power of Food.....	71
Chapter 4 – The Liver-Friendly Diet In Action:.....	74
Fresh & Flexible Liver-Friendly Meal Options	75
Veterinarian-Approved Liver Disease Recipes.....	79
Canine Low Protein Diet for Liver Disease.....	80
Chicken & Cottage-Cheese Diet for Liver Shunts	81
Pippa’s Liver Malfunctioning - TCM therapeutic diet.....	82
Diets for Dogs with Hepatic Disease by Dr Strombeck	83
Home-Prepared Cat & Dogs Diets (second edition).....	85
Hilary Watson’s Liver Recipes from her book <i>Complete & Balanced</i>	86
Sample BalanceIT™ Recipes for Liver Disease.....	88
Simba’s Balance-It White Fish Recipe.....	89
Simba’s Balance-It Turkey and Rice Recipe	89
Norman’s Balance-It Low Protein Recipe.....	91
Max’s Balance-It Recipe	92
Balanced Long-Term Liver-Friendly Recipes.....	93
Balanced - Basic Liver Cleansing Diet	94
Balanced – Dr. Dodd’s Liver Cleansing Diet.....	96

Balanced – Low Protein Diet	98
Original Recipes	100
Sunny’s Miracle Diet	101
Basic Liver Cleansing Diet	102
Basic Homemade Meal for Liver Disease.....	103
Healthy Chicken, Vegetable, Pasta Stew	104
BULK, Healthy Chicken, Vegetable, Pasta Stew	105
Dr. Dodd’s Liver Cleansing Diet	106
Low Protein Diet.....	107
Fast, Fresh Homemade Dog Food.....	108
Fast, Easy Homemade Breakfast	109
Turkey and Rice Delight.....	110
Chapter 5 – Supplements for Treating Liver Disease	112
Milk Thistle’s Silymarin – The Most Important Herb	112
Other Beneficial Healing Herbs and Supplements.....	114
Multi-Vitamin, Dietary Supplements & Digestive Enzymes	117
Things to Avoid for Your Dog’s Liver Health	118
Chapter 6 – Caring for Your Sick Dog.....	120
Good Veterinary Care.....	120
Communication from Your Dog.....	120
Potty Patrol.....	121
What stools and diarrhea tell you about your dog.....	122
Vomiting.....	123
What vomit tells you about your dog.....	123
Urination Accidents	123
Soiling Accidents	124
Begging or Demanding Attention or Acting Very Needy.....	124
Changes in Behavior	124
Changes in Eating Habits.....	124
Changes in Sleeping Habits.....	126
Signs of Progressing Liver Disease	126
Special Needs of Dogs with Liver Disease.....	127
How to Give Your Dog a Quick Check-up	128
Signs that Your Dog Is in Pain.....	129
Pain Management for Dogs with Liver Disease: Conventional and Natural Options.....	131
Creative Ways to Give Your Dog a Pill	132
Bathing and Grooming.....	133
Non-Toxic Flea & Tick Control	133
Heart Worm Preventative	136
Vaccinations	136
Emotional Health.....	137
Chapter 7 – Liver-Related Illnesses and Treatment.....	138
Gastritis or Stomach Problems	138
Allergies/Sensitivities/Food Intolerances	139
Chapter 8 – Gratitude and Faith.....	141
This Book is For You	141
Afterword.....	142
Update on Norman.....	142

Rainbow Bridge	144
Appendix A: Complete Shopping List.....	145
Appendix B: Healthy Powder	146
Appendix C: Blank Checklist	147
Appendix D: Quick-Start FAQs & Checklist.....	148
Appendix E: How to Make Eggshell Calcium Powder.....	158
Resources and References	159
Products	159
Bibliography	159
Articles used as References	160
Canine Liver Disease Resources	160
More Resources	160
Veterinarian & Pet Nutritionists, and Fresh Food Consultants/Software	160
Food Sensitivity/Intolerance Test Kits.....	161
Diagnosing Liver Disease.....	161
About Norman.....	162
About the Author	163
About the 20 th Anniversary Cover.....	164

Foreword

By Liza Dawber

"Thanks to this book, Pip not only survived, but thrived. His liver enzymes normalized, his energy and appetite returned, and his personality and spirit shone brighter than ever."

Pip was my shadow and my best buddy. He was a tough and spirited Jack Russell Terrier who lived with liver disease for 9 years. Cyndi asked me to tell his story to help other dogs and their owners who are facing liver disease.

We adopted Pip in 2011 from a family in Calgary who kept him in the laundry room because he had nipped their toddler. He was four years old and very food aggressive and bossy. We spent the first few weeks figuring each other out and giving him plenty of exercise and swimming, which he loved.

In 2014, he was exposed to contaminated water that had blue-green algae, which we believe caused his liver failure. In 2015, he started to show symptoms of liver disease, such as bright orange pee in the snow. The vet said he had two weeks, maybe a month, to live. His liver was very small and likely cirrhotic. She advised us to put him on a prescription diet, antibiotics, and steroids. I cried for two days with him in my arms.

I was not ready to give up on him, so I searched on Facebook and found the Hope for Healing Liver Disease page and reached out to Cyndi. She told me to buy and read her book and then call her. I did that and we came up with a plan. We changed his diet, gave him natural herbs and supplements, and cared for him with love and patience.

My vet was upset and dismissive at first, but she was very impressed with the results. Pip's liver enzymes normalized, his energy and appetite returned, and his personality and spirit shone brighter than ever. He lived for nine more years, enjoying every moment of his life with me and his furry siblings. He was my loyal companion, my fearless protector, and my best friend.

He had many adventures and challenges, such as taking on a moose, a honey badger, and a cow. He was a killer of small furry things but afraid of cats. He was mostly deaf and had poor eyesight, but he could still hear a gopher squeal. He tried to bite the vet every time she took blood and she called him "her favourite little a-hole". I was good with that.

I am so grateful to Cyndi for writing this book and for being there for me and Pip throughout our journey. She is a true angel and a hero for dogs with liver disease. I am also grateful to you, the readers, for your interest and support for this book. I hope that this book will help you and your dog find hope and healing, and that you will cherish every moment you have with your dog. I hope that you will celebrate your dog's life and love, as I celebrate Pip's.

Liza Dawber, March 22, 2023

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.

Preface

If you are reading this book, chances are you are looking for hope for your dog who has been diagnosed with liver disease, or a shunt, or just elevated liver enzymes. I know how scary and overwhelming this situation can be, as I have been through it myself with my dog Norman.

But let me reassure you, **THERE IS HOPE!** Liver disease does not have to be a death sentence for your dog. It is treatable and manageable. There are many ways to help your dog heal and recover from liver damage.

In this book, you will find out how I did it with my dog Norman 20 years ago, and how you can do it too. You will also find updated information and resources to help you along the way. This book has been used by thousands of other pet parents like you, and many dogs have gone on to live for 2, 4, and even 9 years after a terminal diagnosis.

When I wrote the first edition in 2003, liver disease was the 5th leading cause of death in dogs. Now, it's not even on the list! That should give you further hope.

This is the 20th anniversary edition of my book, and it features a new foreword by Liza Dawber, one of the readers who used this book to help her dog Pip heal from liver failure. Pip was diagnosed with terminal liver failure in 2015, and was given only a few weeks to live. But Liza followed the natural and holistic methods in this book, and Pip lived for 9 more years, until he passed away peacefully this year in 2023. Liza shares her story and experience in the foreword, and how this book gave her hope and guidance for Pip's healing. I am very grateful and honored to have Liza's foreword in this edition, and I hope you will find it as inspiring and touching as I did.

I have updated the book to reflect the latest trends and research in natural pet care. One of the main changes is replacing "alternative treatment" with "natural treatment", "holistic treatment", or "integrative treatment". These terms better represent how readers perceive and understand these treatments today. By making this change, I aim to make the book more appealing and useful to you as you seek natural and holistic solutions for your dog's liver issues.

Some of the other new features are:

- A completely rewritten chapter 3 on homemade healthy diet, which is now called the Liver-Friendly Diet. This chapter will guide you on what, why and how to feed your dog a homemade diet that supports liver health and healing.

- A newly designed quick start section featuring a helpful checklist and frequently asked questions. This will help you get started and answer some of the most common concerns you may have about healing your dog's liver.
- Many, many more recipes for liver-friendly homemade dog food, including recipes from veterinarians, recipes from BalanceIt (the online recipe formulator), balanced versions of key original recipes, and a new TCM recipe based on traditional Chinese medicine principles.

And these are just some of the highlights, there are many more improvements throughout the book.

Thank you so much for choosing my book. I genuinely hope it fills you with hope and inspiration for your dog's healing journey. I hope Norman and Pip's story inspires you to explore the benefits of homemade diets and supplements, to embrace the roll of a 2.0 pet parent, and to seek the best holistic treatment for your canine companion.

Cyndi Smasal
November 22, 2023

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.

I later learned that the bloating was called ascites, which is a buildup of fluid in the abdomen caused by liver disease. It was probably worsened by the low-protein prescription diet that the Vet put Norman on. I didn't know it at the time, but 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 **homemade 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 10-1/2-year-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 wanted to learn how to feed Norman a natural diet that would help his liver heal. But I had limited finances and I couldn't find a nutritionist who specialized in liver disease diets for dogs. So I decided to do my own research and experimentation.

In this book, I share everything that I have learned from more than a year of caring for Norman. You will find out what I have tried, what I have learned, and what worked and what didn't. I hope that this book will save your dog's life and give you everything you need to care for the dog that you love.

20th Anniversary Edition Update:

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

Welcome to the 20th Anniversary Edition of this book. In this edition, you will find more information and advice on how to create a liver-friendly diet for your dog. I have been formulating custom liver diets for 15 years and I want to share my knowledge and experience with you. I hope this will help you save time and extend the life of your dog. You will also find a list of veterinarian nutritionists and fresh food consultants who can help you create a custom diet that is perfect for your dog. (see list of [Veterinarian Nutritionists and Fresh Food Consultants](#) in the resource section and online)

We are living in a time of dog food revolution. More and more people are choosing to feed their dogs fresh, natural, and balanced food. More and more veterinarians are acknowledging the role of nutrition in preventing and treating diseases in dogs. More and more resources are available for pet parents who want to make their own food or buy high-quality food for their dogs. This is a great opportunity to join the fresh food movement and give your dog the best chance to heal and thrive.

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

I was not ready to give up on Norman. I wanted to try anything that could help him live longer and better. So I did some research and found out about natural remedies for liver disease in dogs. I decided I had nothing to lose, and I wasn't going to sit around and do nothing. So I stopped using conventional medications and started using herbs, supplements, and home-cooked food for Norman.

Here is what I did:

- I gave Norman Milk Thistle extract (150mg once a day) to support his liver function.
- I gave Norman Vitamin E (400 I.U. daily) to help his detoxification process.
- I gave Norman Ursodiol to add bile acid to help his digestion.
- I gave Norman a half of a human Multi-Vitamin with antioxidants every day.

- I stopped feeding Norman the prescription diet food for liver disease that the Vet recommended.
- I started feeding Norman a home-cooked, natural diet with ingredients that were good for his liver. I followed the recipe for Sunny's Miracle Diet that I found online.
- I only used distilled water for Norman's drinking and cooking.

After three months of following this regimen, I took Norman back to the Vet for a blood test. I told the Vet that I had switched Norman to a natural diet and asked her what she thought about it. She did not approve of my decision and insisted that the prescription diet food was better for Norman. But I disagreed with her and decided to stick to the natural diet.

Note: This is not a guide on what you should do for your dog. It is just a record of what I did for Norman. Now, 20 years later, I would not use a human multivitamin for Norman. Instead, I would use specific supplements that would support his 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.

Norman's health took a turn for the worse after several months of eating the natural home-cooked diet. He started to vomit his food, have diarrhea, and wake me up at night to go outside. Sometimes his stool looked bloody. I was scared that he was having liver failure, so I took him to the Vet again. She kept him overnight with an IV of Vitamin B-12 and did some tests. The next morning, he ate his breakfast and we went home. But he was still not well. He still had the same symptoms. I was not satisfied with the Vet's care. **I wanted to**

find a Vet who would support me in feeding Norman a natural diet and help me understand his condition better.

I contacted a Homeopathic Vet who did not use conventional medicine anymore. She introduced me to the world of Homeopathy. We talked on the phone several times and she gave me some homeopathic remedies for Norman's stomach problems. But they did not seem to work. I realized that I had to figure out what was causing Norman's reaction by myself.

I decided to take a scientific approach and test one variable at a time. I suspected that something in his diet was upsetting his system. I had a very complex diet for him with many ingredients and supplements. I had to simplify it and eliminate one item at a time until I found the culprit. I kept a detailed record of everything that Norman ate, drank, and did for three days. I timed how long it took for his food to go through his system by looking at his stool. For example, carrots are easy to spot because they are not always digested well. If I fed him carrots in one meal and not in the next, I could tell when that meal was digested by looking for carrots in his stool.

It took me a while, but I finally found the culprit. Rice! Rice was causing Norman's stomach problems. As soon as I removed rice from his diet, everything went back to normal. He stopped vomiting, having diarrhea, and waking me up at night. He was happy and healthy again.

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.

A Table of Things to Note for Identifying Problem Foods for Your Dog

If you want to find out what foods are causing your dog's stomach problems, you need to keep a careful record of everything that your dog eats, drinks, and does. Here is a table of the things that you should watch and note for each day:

Item	Description	Example
Recipe or Meal Ingredients	The ingredients that you use to make your dog's food or the food that you buy for your dog.	Chicken, rice, carrots, etc.
Feeding Time	The time of the day that you feed your dog.	8:00 am, 12:00 pm, 6:00 pm, etc.
Urination Time	The time of the day that your dog pees.	8:30 am, 1:00 pm, 7:00 pm, etc.
Bowel Movement (potty) Time	The time of the day that your dog poops.	9:00 am, 2:00 pm, 8:00 pm, etc.
Stool Color, Consistency and Volume	The color, texture, and amount of your dog's poop.	Brown, firm, normal; yellow, soft, small; red, bloody, large; etc.
Behaviors	The actions or reactions that your dog shows after eating or during the day.	Sleeping, licking on the part of the body, walking around frequently, begging, eating strange objects like grass or feces, etc.
Timing of Behaviors	The time of the day or the relation to eating that your dog shows the behaviors.	1 hour after eating; before eating; at night; etc.
Supplements given	The supplements that you give your dog to help his liver or digestion.	Milk Thistle extract; Vitamin E; Ursodiol; etc.
Timing of Supplements given	The time of the day or the relation to eating that you give your dog the supplements.	With food; without food; in the morning; in the evening; etc.
Laying (sleeping) spots	The places where your dog sleeps or rests during the day or at night.	On the couch; on the bed; on the floor; in his crate; etc.

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

DAILY NOTES

DATE: 7/22/2003

	ROUTINE	TIME	NOTES
MORNING	Wake-Up Time	6:30am	
	Morning Med Time	7:00am	
	Breakfast Time	7:15am	
	Potty Patrol Check	9:35am	<i>brown, solid, normal</i>
NOON	Arthritis Med Time	11:00am	
	Lunch Time	11:15am	
	Ursodiol	<i>Yes</i>	
	Lunch Supplements	11:15am	
	Potty Patrol Check	11:35am	<i>brown, solid, normal</i>
AFTER-NOON	Arthritis Med Time	3:00pm	
	Dinner #1 Time	3:15pm	
	Potty Patrol Check		<i>none</i>
EVENING	Arthritis Med Time	7:00pm	
	Dinner #2 Time	7:15pm	
	Potty Patrol Check	7:30pm	<i>brown, solid, normal</i>
NIGHT	Night Supplements	9:00pm	<i>usual + calcium without food</i>
	Snack (optional)	10:00pm	
BEFORE BED	Bedtime Med Time	9:45pm	
	Potty Patrol Check		<i>none</i>

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*

You can use this table as a template to make your own notes for your dog. You can also use my new Healing Journal for more help in tracking your dog's health and progress. (see the resource section and online)

Sometimes, Norman would have gas, stomach, or gastrointestinal problems when I tried to add something new to his diet. This meant that he could not tolerate that item. I learned to test each new item one by one and see how he reacted to it.

20th Anniversary Edition Update:

I have learned that dogs who have liver disease associated with NSAID's (non-steroidal anti-inflammatory drugs) may have malabsorption problems due to scarring in the GI tract. I have also learned that there are now food sensitivity tests that can tell you what foods your dog should avoid without having to do so much trial and error. You can find a list of food sensitivity/intolerance tests in the [resource section](#) and online.

After the crisis was over, I got a call from a Holistic Vet that I had contacted online. I wanted a Vet who would support me in using natural remedies and diet for Norman. I wanted to make sure she was supportive of alternative treatments like homemade diet so I asked her a lot of questions. She answered them patiently and agreed to come to my house and examine Norman. She asked me to get his medical records from his previous Vet. When she came, she explained to me what his blood tests and sonogram meant. This fresh look at Norman's history was very educational and enlightening for me. I learned a lot from her and felt more hopeful about Norman's case.

Notes on Blood Test Results

Dr. Forster told me that 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.

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 things that I learned from Dr. Forster was to find the cause of Norman's liver disease, not just treat his symptoms. She taught me that without knowing the source of the problem, I was only masking the pain and damage, not healing it. She also helped me identify several red flags in Norman's history that may have contributed to his condition. These red flags were clues that I had missed or ignored before, but now they made perfect sense. They also guided me to choose the best course of treatment for Norman.

How Norman's Routine Vet Visit May Have Triggered His Liver Disease

Three months before Norman was diagnosed with liver disease, he had a routine vet visit that may have been the trigger for his condition. His blood test showed that he was anemic, which means that he had low red blood cell count. This was the first sign that something was wrong with his health. But I didn't know it at the time. I didn't realize how serious anemia could be for a dog with liver disease. I didn't know that anemia could indicate internal bleeding, infection, or cancer. I didn't know that anemia could make his liver work harder and cause more damage. I wish I had known these things sooner. Maybe I could have prevented or delayed his liver disease. But I didn't know. And neither did his vet.

During and after his vet visit, Norman's body was bombarded with drugs and chemicals that may have harmed his liver. Here is what he got:

- Pain medication for removing a small growth on his ear
- Anesthesia for dental cleaning
- All of his vaccinations (Rabies, DHLPP/Parvo)
- Antibiotics for 20 days after the cleaning
- Rimadyl for arthritis pain
- Heartgard tablets for heartworm prevention
- Flea & Tick control medication

Note

Giving vaccinations at the same time as surgery is not recommended. It is against the label instructions for any vaccine. Vaccinations can weaken the immune system and increase the risk of infection or adverse reactions. You should always ask your vet to separate vaccinations from surgery or dental procedures.

If Norman's liver was already damaged, all of these drugs and chemicals could have 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.

A Review of Medical History reveals Red Flags.

As Dr. Forster continued to review Norman's medical history, she pointed out a few other red flags. The next red flag was his gingivitis. Bad teeth and gums produce toxins that are harmful to the liver. And, it's also a general sign of bad health.

And then there was the painkiller that I gave him for his arthritis. I had been giving him Rimadyl, an NSAID, every day for over two years. I didn't know that NSAIDs could cause liver damage in dogs. I didn't know that I had to check his liver values regularly if I gave him NSAIDs. I wish I had known these things sooner. I couldn't help but kick myself for giving him NSAID. It was one of the biggest mistakes that I made.

20th Anniversary Edition Update:

Giving Norman Rimadyl™, for years, was 'THE' thing that haunted me for years. I felt so guilty and angry for following my vet's prescription without questioning it or doing blood tests. I felt like I had failed Norman as his guardian and ended up hurting him more than helping him. It was the one thing that I regretted the most and wished I could undo. It was also one of the biggest things that made me a 2.0 pet parent. It made me realize that I had to educate myself and do my own research. It made me realize that I had to be an advocate for Norman and not blindly trust what my vet told me. It made me realize that I had to look at things holistically and use natural and holistic approaches, first and whenever possible, for my dog's health.

And I also ignored some of his mild symptoms that he had for years. He had loose stools, constant drooling, and gas. I thought they were normal or not a big deal. But they were actually signs of liver disease or food intolerance.

And speaking of food, I was feeding him the "premium" commercial pet food that contained rice. I thought it was the best food for him. I trusted the pet food industry and the vet's recommendation. But I was wrong. The commercial pet food was not good for his health or his liver. It was full of fillers, preservatives, and allergens.

20th Anniversary Edition Update:

After I learned that 'premium' commercial pet food was not the best choice for my dog's health and longevity, I changed the way I fed all my dogs for the next two decades. I also became passionate about learning everything I could about pet food, natural home-cooked diets, and how to make them complete and balanced.

The Things I Didn't Know and How I Became a 2.0 Pet Parent

I was so ignorant before all of this happened. I didn't know anything. I didn't know how to ask questions or that I should ask questions. I didn't know how harmful medications could

be. I didn't know how toxic commercial pet food could be. I didn't know how bad breath, drooling, and gas were signs of poor health.

I feel so angry, guilty, and stupid for not knowing these things. I feel so sorry for what I put Norman through. I wish I could go back and do things differently. But I can't. All I can do is learn from my mistakes and never repeat them again.

That's why I'm a 2.0 pet parent now. That's why I always educate myself on what's going on with my dog. That's why I always do my own research and question everything. That's why I don't trust conventional or traditional veterinary medicine. That's why I look at things holistically now. That's why I use natural and holistic approaches for my dog's health. That's why I go to a holistic and integrative vet instead.

Now I know better. And I want to share what I know with you. I want this book to help you learn how to care for your dog's liver and health in a natural and holistic way. I want this book to empower you to ask questions, do research, and make informed decisions for your dog. I want this book to inspire you to become a 2.0 pet parent and advocate for your dog. As Maya Angelou said, **“Do the best you can until you know better. Then when you know better, do better”**

The Cause of Norman's Liver Disease...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.

Dr. Forster's Treatment Plan: The Supplements and Vitamins that Saved Norman's Life

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

Dr. Forster was very supportive and knowledgeable, and she helped me find the best supplements and vitamins for Norman's liver and cognitive health. These supplements and vitamins were crucial for his recovery and survival. She followed up by doing her own research and consulted another Holistic Veterinarian and Internist to give me additional information. She recommended other supplements.

Here are the supplements and vitamins that Dr. Forster prescribed for Norman:

- Double dose of Milk Thistle (from 150mg a day to 150mg 2x/day) - This is an herbal supplement that has been used for centuries to treat liver disorders. It helps detoxify the liver and stimulate its regeneration.
- Vitamin E 200 mg + general antioxidant formula d-alpha form not dl-alpha - This is a vitamin that also acts as an antioxidant, which can prevent or reduce liver damage and inflammation.

- L-Carnitine 500mg 2x/day - This is another amino acid that is important for both liver and cognitive functions. It helps convert fat into energy, which can improve liver metabolism and brain performance.
- Alpha-Lipoic Acid (ala) 100mg 1x/day - This is an antioxidant that protects the brain cells from oxidative stress, which can cause cognitive decline.
- Turmeric (an herbal supplement) (1 tsp daily) - This is a spice that has anti-inflammatory and anti-fibrotic properties, which can prevent or reverse liver scarring and cirrhosis.
- Taurine 500mg 2x/day - This is an amino acid that is essential for both liver and cognitive functions. It may have some benefits for dogs with liver disease, such as reducing oxidative stress and inflammation. However, some sources say that taurine should not be given to dogs if they have gall bladder problems, which can be a complication of liver disease. Therefore, it is best to check with your vet before giving taurine to your dog.
- Canine Plus Multi-Vitamin with antioxidants from Vetri-Science - This is a multivitamin that contains various nutrients that support the overall health and well-being of dogs.
- Prozyme Digestive Enzymes instead of human brand - These are enzymes that help digest food and absorb nutrients, which can improve liver function and reduce toxins in the body.
- I followed Dr. Forster's instructions carefully and gave Norman these supplements and vitamins every day. They made a huge difference in his condition and quality of life.

Please note: The supplements and vitamins that Dr. Forster prescribed for Norman are not a magic formula or a one-size-fits-all solution for liver disease in dogs. They are based on Norman's specific condition, symptoms, and needs. They may not be right for every dog, and they may have side effects or interactions with other drugs. Please do not give any supplements or vitamins to your dog without consulting your veterinarian first. This is just meant to show you what my vet prescribed for Norman, and how it helped him.

Update: More Supplements and Medications That May Help

Disclaimer: The following list of supplements and medications is not meant to be a complete or authoritative guide for treating liver disease in dogs. It is based on my personal experience and research, and it may not apply to every dog or situation. Please do not give any supplements or medications to your dog without consulting your vet first.

Here are some additional supplements and medications that may be prescribed by your vet or suggested by other sources:

Denosyl – This is the canine version of SAMe, which is a compound that helps support liver function and detoxification. It also has anti-inflammatory and neuroprotective effects.

Denamarin – This is a combination of Denosyl and Silymarin, which is another compound that helps protect the liver from damage and inflammation. It also has antioxidant properties. This should not be given in addition to Denosyl, as it may cause overdose or side effects.

Lactulose – This is a type of sugar that helps reduce ammonia levels in the blood, which can cause cognitive dysfunction or neurological signs in dogs with liver disease. Some symptoms of high ammonia levels are pacing, difficulty standing, head pressing, getting lost in corners, vocalizations, etc. Lactulose works by drawing water into the intestines and flushing out ammonia through the stool.

Psyllium husk powder (or Metamucil®) – This is a type of fiber that does the same as Lactulose, but it also helps regulate bowel movements and prevent constipation. It can be given alone or along with Lactulose.

Antibiotics – These are drugs that help reduce ammonia-producing bacteria in the GI tract, which can also contribute to cognitive dysfunction or neurological signs in dogs with liver disease.

These supplements and medications may help some dogs with liver disease, but they are not a substitute for a proper diet, regular check-ups, and close monitoring by your vet. They may also have side effects or interactions with other drugs, so you need to be careful and follow your vet's instructions.

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. There may be new supplements out that I don't know about. Always do your research.

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

Finding the right diet for Norman was a long and difficult process, but it was worth it in the end.

Norman's health improved a lot after I started feeding him homemade dog food, specialized for his liver disease, and added the additional supplements and vitamins. But he still had some challenges along the way. He got sick four times, due to diet or arthritis issues. Each time, 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.

The Many Recipes and Diets I've Tried:

I've tried many different recipes and diets over the last year. And, I've learned a lot along the way.

Here are some of the things that I tried:

- I went from preparing each meal from scratch using strictly natural ingredients to using healthy commercial canned dog food from a health food store.
- I was an extremist where I made each meal using fresh vegetables and dairy protein, such as yogurt and cottage cheese.
- I was economical where I made large batches of cooked food and froze them for use over several weeks.
- I was lazy and used healthy commercial canned dog food, such as Halo Canned Food.
- I used hot water to heat his food, and I've used the microwave to heat his food.
- I used raw beef, turkey, liver and bones, and I used cooked chicken, beef and liver.
- I used tofu, soy granules, and other vegetarian options
- I used commercial freeze dried grain mixes (like Sojo) that go with raw meat.
- I used various types of carbohydrates, such as potatoes, yams, pasta, couscous, millet, barley, oatmeal.
- I used different kinds of fruits and vegetables, such as fresh fruit, dried fruit, fresh vegetables, frozen vegetables, and canned vegetables.

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.

What I Learned Along the Way

I learned that finding the right diet for Norman was not a matter of following a fixed recipe or formula, but a matter of adjusting and adapting to his needs and preferences. I learned that every dog is different and that what works for one dog may not work for another. I

learned that trial and error is inevitable and necessary in this process. I learned that patience and perseverance are essential in this process.

I also learned that diet is not the only factor that affects Norman's liver health. I learned that supplements and vitamins are also important and helpful in supporting his liver function and detoxification. I learned that regular check-ups and close monitoring by my vet are also important and helpful in preventing or treating any complications or infections that may arise from his liver disease. I learned that love and care are also important and helpful in keeping him happy and comfortable.

How This Book Can Help You

I want to save you time and effort by showing you my approach and giving you my lessons learned. I want to share with you the recipes and ingredients that worked for Norman, and how they helped him. I want to give you tips and advice on how to find the best diet for your dog with liver disease.

I also want to give you more information and education on cooking healthy homemade diet for liver disease and for good health. This book is not just about my personal experience, but also about the latest research and findings on this topic. This book is the 20th Anniversary Edition, which means it has been updated and revised with new content and insights.

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 [a list of nutrition specialists in the appendix.](#))

Finding the right diet for your dog with liver disease may not be easy, but it is possible and rewarding.

Norman was doing great on his homemade diet and supplements for liver disease. Over a year and a half after his initial diagnosis, his blood tests were still all normal. But just when I thought everything was going well, we had a scare that almost made me lose him.

Norman also had arthritis in his hips and knees, which caused him a lot of pain and discomfort. Finding a way to treat his pain without harming his liver was another challenge that I faced.

The Scare That Almost Made Me Lose Him

Since I started feeding Norman homemade dog food, specialized for his liver disease, and added the additional supplements and vitamins, he had been doing well. But about nine months later, he gave me a scare that I will never forget.

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).

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.

The Diagnosis That Explained His 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.

The Solution That Worked for Him

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.

Treating pain associated with arthritis in dogs with liver disease may not be easy, but it is possible and important.

It WORKS! Norman's Remarkable Recovery from Liver Disease and How It Inspired Me to Write This Book

I am convinced that natural and holistic 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 in this book, 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, and to look for holistic and integrative veterinarians if you're not satisfied. 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. He was happy and healthy, thanks to the holistic treatments I gave him. However, he also had severe arthritis that got worse over time. Eventually, 2 years after his initial diagnosis, I had to make a very difficult decision about his quality of life. You can read more about this in the final chapter.

Chapter 2 – Liver Disease: Diagnosis, Types, and Treatments

“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 Lasix 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:
 - 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)
 - Ketaconazole (fungal treatment)
 - Tylenol (acetaminophen)
 - Glucocorticoids (cortisone)
 - Anthelmintics (de-worming medication)
 - 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.
- Pica - 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. (see Hepatic Encephalopathy) (May be associated with mealtime.)
- Unexplained bleeding or prolonged bleeding (e.g. after nail trimming or drawing blood).

Hepatic Encephalopathy (HE):

This is a condition that affects the brain function of dogs with liver disease. HE occurs when the liver is damaged and cannot filter out toxins from the blood, such as ammonia. These toxins can reach the brain and cause problems with thinking, memory, mood, personality, and movement. Dogs with HE may also have a musty or sweet breath odor. In severe cases, HE can cause confusion, drowsiness, seizures, or coma.

HE can be caused by different types of liver disease, such as cirrhosis, liver shunt, hepatitis, or liver failure. HE can also be triggered by factors that increase the toxins in the blood, such as high-protein diet, constipation, dehydration, infection, bleeding, or certain drugs.

HE can be treated by medications, procedures, and dietary changes. Medications can help reduce the toxins in the blood, such as antibiotics, laxatives, or lactulose. Procedures can help improve the blood flow in the liver, such as transjugular intrahepatic portosystemic shunt (TIPS). Dietary changes that include protein-restriction and increased fiber intake help to reduce the ammonia production and absorption in the gut.

Not all types of liver disease are equally likely to cause HE. Some types of liver disease, such as portosystemic shunt, acute liver failure, chronic liver disease, hepatic lipidosis, and liver cirrhosis, are high risk for HE, because they impair the liver function and cause high levels of ammonia and other toxins in the blood. These types of liver disease require protein restriction. However, other types of liver disease, such as chronic active hepatitis, microvascular dysplasia, neoplasia, and hepatic cysts, are low risk for HE, because they do not affect the ammonia levels or the blood flow to the brain. These types of liver disease

may not need a protein-restricted diet, as protein can help maintain the liver function and prevent muscle wasting.

It is important to know that elevated liver enzymes (alone) only show that the liver is damaged, inflamed, or blocked. But this does not mean that the dog is at risk of HE or requires a protein-restricted diet.

Types of Liver Disease

Acute hepatitis:

This is a condition where the liver is inflamed and damaged by toxins, viruses, bacteria, fungi, or drugs. It can impair the liver function and cause symptoms such as jaundice, vomiting, diarrhea, loss of appetite, and abdominal pain. It can be diagnosed by blood tests, ultrasound, or biopsy. Treatment options may include fluids, antibiotics, and liver medications.

Chronic inflammatory liver disease:

This is a condition where the liver is inflamed and scarred for a long time by immune-mediated disorders, infections, or unknown factors. It can reduce the liver function and cause symptoms such as weight loss, lethargy, increased thirst and urination, and ascites. It can be diagnosed by blood tests, ultrasound, or biopsy. Treatment options may include immunosuppressive drugs, anti-inflammatory drugs, and liver supplements.

Portosystemic Shunt (PSS):

This is a condition where blood vessels that should carry blood to the liver bypass the liver through an abnormal vessel. This allows blood to enter the body without undergoing the liver's filtration process to remove toxins, medications, and wastes from the blood. Liver shunts can be congenital, meaning present from birth, or acquired, meaning developing later in life due to other liver problems. Liver shunts can cause symptoms such as poor growth, seizures, disorientation, vomiting, diarrhea, or urinary problems. Liver shunts can be diagnosed by blood tests, ultrasound, or scintigraphy.

Liver shunt treatment requires a different approach than other liver diseases. The main goal is to prevent and treat hepatic encephalopathy (HE).

The treatment options include:

- **Medical management:** low-protein prescription diet, lactulose, antibiotics, and other medications to reduce toxin production and absorption in the intestines.
- **Surgery:** closing or reducing the abnormal blood vessel that bypasses the liver and causes the shunt. This can improve liver function and reduce HE risk. Surgery is the preferred conventional treatment option for young dogs with a liver shunt, as it can improve their liver function and reduce the risk of hepatic encephalopathy. However, surgery is not always possible or successful, and some dogs may need lifelong medical management. Older dogs who have less severe symptoms and

normal bloodwork may not benefit from surgery as much as young dogs, and may do better with long-term medical management.

- **Alternative treatments include:**
 - Dietary modifications, such as a homemade plant-based, low-protein and high-fiber diet,
 - Herbal remedies, such as milk thistle and dandelion, acupuncture, which can improve blood circulation in the portal vein, and
 - Supplements, such as Denamarin and vitamin E, which can reduce inflammation and oxidative stress in the liver.
 - You can combine alternative treatments with conventional treatments, such as surgery or medication, to enhance their effectiveness and provide the best care for your dog.

Cirrhosis of the Liver:

This is a condition where liver cells die off and turn into scar tissue. This condition is irreversible and reduces the liver's ability to function properly. Cirrhosis can be caused by chronic liver disease, toxins, infections, or genetic disorders. Cirrhosis can cause symptoms such as jaundice, ascites, bleeding disorders, hepatic encephalopathy, or portal hypertension. Cirrhosis can be diagnosed by blood tests, ultrasound, biopsy, or advanced imaging. Treatment options may include dietary management, medication, or liver transplant. 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.

Vacuolar hepatopathy/nodular hyperplasia/aging change:

This is a condition where liver cells accumulate fat droplets or glycogen in their cytoplasm. This causes the liver cells to swell and form nodules in the liver tissue. This condition is usually benign and does not affect the liver function significantly. It can be seen in older dogs or dogs with certain hormonal disorders such as Cushing's disease or diabetes mellitus. It can also be induced by some drugs such as glucocorticoids or phenobarbital. This condition usually does not cause any symptoms and is often an incidental finding on ultrasound or biopsy.

Toxin/drug induced Liver Disease:

This is a condition where the liver is damaged by exposure to toxic substances or drugs that are harmful to the liver cells. These substances can include plants (such as sago palm or mushrooms), artificial sweeteners (such as xylitol), medications (such as antibiotics or anticonvulsants), or chemicals (such as pesticides or antifreeze). These substances can cause acute or chronic liver failure depending on the dose and duration of exposure. They can cause symptoms such as vomiting, diarrhea, anorexia, jaundice, ascites, or hepatic encephalopathy. They can be diagnosed by blood tests, urinalysis, or biopsy. Treatment options may include removing the source of toxicity, administering antidotes, or supportive care.

Idiopathic chronic hepatitis / copper storage disease:

This is a condition where the liver is inflamed and scarred for unknown reasons. It is more common in certain breeds of dogs such as Bedlington Terriers, West Highland White Terriers, Doberman Pinschers, or Labrador Retrievers. It can also be associated with excessive accumulation of copper in the liver due to genetic defects or dietary factors. This condition can cause symptoms such as weight loss, loss of appetite, jaundice, ascites, or hepatic encephalopathy. It can be diagnosed by blood tests, ultrasound, or biopsy. Treatment options may include medication, dietary management, or chelation therapy.

Infections:

This is a condition where the liver is infected by bacteria, fungi, parasites, or viruses that cause inflammation and damage to the liver tissue. Some examples of infectious agents that can affect the liver are leptospirosis, adenovirus, histoplasmosis, flukes, or heartworms. This condition can cause symptoms such as fever, vomiting, diarrhea, jaundice, ascites, or hepatic encephalopathy. It can be diagnosed by blood tests, urinalysis, culture, or biopsy. Treatment options may include antibiotics, antifungals, antiparasitics, or antivirals .

Vascular disorders:

This is a condition where the blood vessels that supply or drain the liver are abnormal or obstructed. This can affect the blood flow and oxygen delivery to the liver, causing ischemia or necrosis of the liver tissue. It can also affect the blood pressure and fluid balance in the liver, causing portal hypertension or ascites. Some examples of vascular disorders that can affect the liver are portal vein thrombosis, arteriovenous fistula, or hepatic artery aneurysm. This condition can cause symptoms such as weight loss, loss of appetite, jaundice, ascites, or hepatic encephalopathy. It can be diagnosed by ultrasound, angiography, or advanced imaging. Treatment options may include surgery, medication, or interventional radiology.

Neoplasia:

This is a condition where abnormal cells grow and multiply in the liver, forming tumors that can be benign or malignant. Benign tumors do not spread to other parts of the body and usually do not cause any symptoms unless they compress or obstruct other organs. Malignant tumors can spread to other parts of the body and cause damage or dysfunction of the normal liver tissue. Some examples of neoplasia that can affect the liver are hepatocellular adenoma, hepatocellular carcinoma, cholangiocellular carcinoma, hemangiosarcoma, histiocytic sarcoma, or lymphoma. This condition can cause symptoms such as weight loss, loss of appetite, jaundice, ascites, vomiting, diarrhea, or neurological signs. It can be diagnosed by ultrasound, biopsy, or advanced imaging. Treatment options may include surgery, chemotherapy, radiation therapy, or supportive care .

Liver tumors or Cancer:

This is a condition where abnormal cells grow and multiply in the liver, forming tumors that can damage or destroy the normal liver tissue. Liver cancer can be primary, meaning it originates from the liver, or secondary, meaning it spreads from another part of the body. Liver cancer can cause symptoms such as weight loss, loss of appetite, jaundice, ascites, vomiting, diarrhea, or neurological signs. Liver cancer can be diagnosed by blood tests,

ultrasound, biopsy, or advanced imaging. Treatment options may include surgery, chemotherapy, radiation therapy, or supportive care.

Cholangitis or cholangiohepatitis:

This is a condition where the bile ducts and the liver are inflamed by bacterial infections, parasites, or immune-mediated disorders. It can obstruct the bile flow and damage the liver. Symptoms may include fever, jaundice, vomiting, diarrhea, and abdominal pain. It can be diagnosed by blood tests, ultrasound, or biopsy. Treatment options may include antibiotics, anti-inflammatory drugs, and liver medications.

Extrahepatic biliary obstruction:

This is a condition where the bile ducts outside the liver are blocked by gallstones, tumors, inflammation, or trauma. It can prevent the bile from reaching the intestine and cause jaundice, liver damage, and infection. Symptoms may include jaundice, vomiting, diarrhea, loss of appetite, and abdominal pain. It can be diagnosed by blood tests, ultrasound, or endoscopy. Treatment options may include surgery, endoscopy, or medication.

Conclusion

As you can see, liver disease is a multifaceted and serious condition that requires proper diagnosis and treatment. Conventional treatments can offer some relief, but also carry some risks and limitations.

Alternative treatments can provide valuable support and enhance liver function and detoxification. These treatments are based on natural, holistic and integrative principles that respect the individuality and vitality of your dog. One of the most important factors that can affect the liver health of your dog diet. How do you prepare healthy liver-friendly homemade dog food that can provide optimal nutrition and protection for your dog's liver? That is what we will discuss in the next chapter.

Chapter 3 – The Liver-Friendly Diet:

What, Why and How to Feed Your Dog with Liver Disease

“Let food be thy medicine.” – Hippocrates

In the 20th anniversary edition of this chapter, I delve into the "liver-friendly" diet, which is crucial for healing your dog's liver.

What You Need to Know About the Liver-Friendly Diet

The liver-friendly diet is a key part of treating your dog's liver disease. Its goal is to heal and protect your dog's liver. It gives your dog the nutrients he needs, such as low sodium and copper, high carbs, and moderate protein, fat, and fiber. These nutrients are gentle on your dog's liver and help it function better.

The liver-friendly diet consists of a variety of fresh foods that are both nutritious and tasty. It includes specific vegetables that detoxify and cleanse the liver, wholesome grains and nutritious potatoes and pasta for energy, high quality and easily digestible lean meats, fish, dairy, and eggs.

This diet is a miracle for dogs with liver disease. Not only will it reduce the symptoms, but it may also add precious months and years to your dog's life.

Unlike commercial prescription diets, the effectiveness of this diet has been proven by countless dogs who have triumphed over liver disease. Norman loved eating it for 2 years, and Pip thrived on it for an astounding 7 years.

When it comes to healing your dog's liver, there is no greater priority than implementing a liver-friendly diet. I urge you to read this chapter carefully and apply the liver-friendly diet blueprint to your dog's daily meals.

A Template That Adapts

The liver-friendly diet should be tailored to your dog's individual needs and condition. Use this as a starting point rather than a strict set of rules. The true value of this diet lies in its emphasis on providing fresh, easily digestible foods that are gentle on the liver. By keeping these guidelines in mind, you can make informed choices that prioritize your dog's individual needs.

The Nutrient Content and Comparison of the Liver-Friendly Diet and the Typical Homemade Diet

Table 1: Comparison of percentage of calories from different nutrients in typical homemade dog diet and liver-friendly diet

Nutrient	Typical Homemade Diet	Liver-Friendly Diet
Protein	20-50%	18-30%
Fat	10-30%	15-30%
Carbs	10-30%	25-45%
Veggies	10-20%	10-20%

To better understand how the liver-friendly diet differs from a typical homemade diet, I have prepared a table that shows the percentage of calories from each nutrient category in both diets. The percentage of calories is based on the calorie content and the density of each food item, not the weight or the volume. The table also shows the range of values for each nutrient, as they can vary depending on the ingredients and the preparation methods.

As you can see, the liver-friendly diet has a lower range of protein, a similar amount of fat, and higher carbs than the typical homemade diet. This is to help reduce the stress on the liver and prevent ammonia build-up. The veggies are similar in both diets, as they provide fiber and vitamins for the liver.

In the following sections, you will learn about the various nutrient categories and the liver-friendly foods that belong to them.

Nutrient Categories

Liver-Friendly Protein

Liver-friendly proteins support and enhance the liver's healing and performance by being high-quality and easy to digest and absorb. Some examples of liver-friendly proteins are wild white ocean fish, such as pollock, haddock, or cod; low-fat dairy products, such as cottage cheese, ricotta cheese, or plain yogurt, eggs or egg whites, organic tofu, and skinless boneless chicken or lean ground turkey.

Unless your dog has a shunt or signs of protein intolerance, such as hepatic encephalopathy (HE), you should feed your dog moderate to normal amounts of protein. Restricting protein too soon or too much can harm the liver's healing process.

Here are the guidelines for protein:

If your dog is showing signs of protein intolerance (HE), then plant and dairy-based proteins like low-sodium cottage cheese and organic tofu are recommended.

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

Red meat (especially raw meat) and organ meat should be avoided in dogs with liver disease or shunt because they are high in copper and ammonia-producing protein, both of which can cause further damage to the already weakened liver. Organ meat, like beef liver, is high in copper and can build up in the liver and cause toxicity. Animal protein can break down into ammonia, which can affect the brain and cause swelling (HE). Raw meat can also have bacteria, parasites, and toxins that the liver cannot handle and can cause infections.

Dr. Jean Dodds, a renowned veterinarian and an expert on liver health in dogs, explains why raw meat and red meat should be avoided in dogs with liver disease. She says:

“When the liver is damaged, it can’t efficiently process protein or metabolize and assimilate foods, so there is the danger that urea and ammonia, toxic byproducts of protein metabolism, can build up and affect the brain. **If your dog presents with liver disease, you do not want to feed a raw diet.** Raw meat can contain bacteria such as Salmonella and E.coli, which will likely pass through a healthy animal without causing harm. However, dogs with liver disease are at increased risk of food-borne infection since the liver is responsible for filtering bacteria. In addition, red meat is high in aromatic amino acids (phenylalanine, tyrosine, and tryptophan), which dogs with liver disease do not tolerate well. Instead, a diet rich in proteins derived from dairy products (preferably from goat and sheep sources) is recommended over meat-based sources. **Studies show that dogs with liver disease live longer and have less severe clinical signs when fed dairy-based protein diets than those containing meat-based proteins.**”

Fish like salmon, tuna, mackerel, and sardines should be avoided in dogs with liver disease or shunt because they are high in copper. Salmon has twice the amount of copper as cod, and sardines have seven times the amount of copper as cod. You should avoid tuna because it is high in mercury.

Here are the guidelines for each type of protein:

Fish

Wild-caught white low-fat ocean fish, such as pollock, haddock, or cod, are among the best protein sources for cleansing the liver. These fish are complete proteins, meaning they contain all the essential amino acids that the liver needs. They are also low in fat, which prevents fat accumulation and inflammation in the liver. Moreover, they have high-quality protein that produces less ammonia than red meat. Additionally, they have omega-3 fatty acids, which can protect the liver cells from oxidative stress and damage. White ocean fish are easy to digest and do not require much work from the liver, unlike other protein sources that may cause deficiencies or imbalances.

Dairy Products

Some dairy products, such as plain natural yogurt, low-fat low-sodium cottage cheese, or ricotta cheese, can provide protein for your dog without producing too much ammonia. However, be careful of lactose intolerance, which can cause diarrhea in some dogs. If your dog reacts badly to dairy products, you should avoid them or try lactose-free alternatives.

Another thing to watch out for is sodium, which can cause fluid retention (ascites) in dogs with liver disease. Sodium can be found in some dairy products, especially cottage cheese. You should look for low-sodium options.

Eggs

Eggs are one of the best sources of protein for dogs, especially for those with liver problems, shunts or symptoms of HE. They have high-quality protein that is easy for the liver to process and does not create much ammonia. They also have albumin, which is a protein that helps prevent fluid build-up in the belly (ascites). Eggs have many other nutrients that can benefit dogs, such as amino and omega-3 fatty acids, vitamins A and B12, folate, iron, selenium, and riboflavin. These nutrients can improve your dog's skin, coat, teeth, and bones. Eggs are also high in choline, which is a nutrient that supports the liver function and health.

When choosing eggs, look for those that come from free-range hens, as they are more humane and nutritious than those from caged hens. Some eggs are even better than others, as they come from chickens that have been fed a high-quality diet and have as much as double the amount of vitamin D, eight times the amount of vitamin E and 20 times the amount of omega-3 than standard supermarket eggs. These eggs are more expensive, but they are worth it for your dog's health. High levels of omega-3 can help dogs with HE to think more clearly and boost the liver's healing and recovery by increasing blood and oxygen flow. Look for the ones that say “omega-3” or “DHA” on the label.

I like to add eggs to all my recipes. They are like Mother Nature's multi-vitamin.

Meat

Some people may think that raw meat is the best protein source for dogs, but this is not true for dogs with liver disease. Raw meat is high in protein and may contain bacteria, parasites, and toxins that can harm the liver. Therefore, **raw meat is not recommended for dogs with liver disease.**

Instead, you can feed your dog high-quality, lightly cooked lean chicken or ground turkey. However, you should only do this after your dog has recovered from the initial stages of liver disease and is in maintenance mode. If your dog has a shunt or shows signs of hepatic encephalopathy (HE), you should avoid giving them any animal meat.

Soy

Soy is an alternative protein source for dogs with liver disease, especially dogs with shunts, because it is gentle on the liver, highly digestible, low in purines and a good source of antioxidants.

In the previous edition of this book, I advised against including soy based on the research and opinions available at that time. However, since then, I have learned more about the benefits and risks of soy products for dogs, and I want to include this information so you can make the best choice for your liver dog.

I also tried feeding soy to Norman in the beginning because it was recommended as the best protein for liver disease. I have seen positive results in dogs with HE and shunts because soy is a complete protein that provides all the essential nutrients without increasing levels of ammonia or uric acid, which causes HE.

In this section, I will share with you the latest information on soy as a liver-friendly protein. I will also cite the sources that helped me update my knowledge, such as the latest edition of Dr. Pitcairn's book, *The Complete Guide to Natural Health For Dogs and Cats*.

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 safer and healthier for your dog's liver. 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.

Is soy safe?

Soy is on all the "No Soy, No Wheat, No Corn" grain-free dog food lists. 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 [like glyphosate]. 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 (TVP), as long as they are organic or certified GMO-free."

Which type of soy product is best?

There are different types of soy products that can provide liver-friendly protein for your dog, depending on your preference and availability. Here are some examples:

- **Tofu:** This is the most common soy-based protein. It comes in various textures, from soft to firm. The firmer tofu varieties make a great meat substitute. 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):** This 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. TVP can also be mixed with

other proteins, such as chicken or eggs, to boost the protein content without raising the ammonia levels.

- **Silken tofu:** This is a soft and creamy type of tofu that is perfect for making low-fat, high-protein smoothies or snacks with fruit.

I have experimented with adding tofu and TVP to my dog Jackson's meals, and even though he's a picky eater, I was surprised to see him gobble it up. I found that mixing them with a tasty broth and small amounts of other proteins makes them smell better, taste better and more palatable for dogs.

Beans, Lentils and Legumes – alternative vegetarian protein

Beans, lentils and legumes are high in protein and fiber, which can be good for dogs, but they also have some drawbacks. They contain copper and purines, which can harm dogs with liver disease or shunt. They also have other components that can upset their stomachs, causing gas, bloating, diarrhea, or vomiting. Therefore, you should use these foods as an alternative vegetarian source of protein only if your dog does not have copper issues or HE, and only in small amounts and with caution.

If you feed your dog canned beans, make sure they are organic and low-sodium, and rinse them well before serving. Avoid any canned beans that have onions in them. If you feed your dog dry beans, soak them overnight and cook them well before serving. You can also mash the beans to help your dog eat them. This will make them easier to digest.

Beans, lentils and legumes do not have all the essential amino acids that your dog needs, so you should not rely on them as the main source of protein. You should mix them with other protein sources, such as quinoa, peas, eggs, tofu, or a little turkey. You can also use a supplement like Vegedog®, which is designed for homemade vegetarian meals. However, Vegedog® also has copper in it, so you should only use it for dogs without copper problems.

Liver-Friendly Fats and Essential Fatty Acids

Dietary fats are beneficial to liver dogs 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 the 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 it 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 fat. However, a liver-friendly 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 enzymes. This will help break down fats in the stomach and keep their digestion running smoothly.

Here are some oils and omega fatty acid supplements that you can use or avoid in your dog's liver-friendly diet:

Use these oils and supplements:

- Wild Salmon Oil (certified organic and tested for purity to avoid mercury)
- Cold Pressed Flaxseed Oil (high omega-3's 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
- Camelina Oil (rich in omega-3 fatty acids and vitamin E)

AVOID these oils and supplements:

- Cod Liver Oil (most brands are contaminated with mercury or PCBs that are harmful to the 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, is highly processed and contains GMOs)
- Palm oil (high in saturated fat, can increase the risk of fat accumulation and inflammation in the liver)
- Corn oil (high in omega-6 fatty acids, can increase the inflammation and oxidative stress in the liver)
- Soybean oil (high in omega-6 fatty acids, can increase the inflammation and oxidative stress in the liver)

Some notes on flaxseed oil, fish oil and coconut oil:

- **Flaxseed oil** is an excellent source of omega-3 fatty acids. But **don't cook with it** or let it reach room temperature. Always buy it refrigerated and **keep it refrigerated**.
- **Fish oils** can provide a variety of healthy fats. **But don't overdo it.** Too much fat can be hard on the liver, increase the risk of bleeding, interfere with some medications, or cause stomach upset or diarrhea. Instead of oil, you can use fresh whole fish (like cod) to give your dog a full array of healthy fats.
- **Coconut oil** is a medium-chain triglyceride (MCT) that is easily absorbed and metabolized by the liver. But it can also cause stomach upset, increase the risk of pancreatitis, or interfere with some medications. If you use it, **start small and increase gradually**.
- If in doubt, leave it out until you can consult with a nutritionist.

A fellow dog lover who read my book told me how Camelina Oil improved her liver dog, JRT Pip's health. She cooked for him for over seven years. She said it helped improve Pip's coat, skin and reduced scratching from allergies. I had never heard of it. I was impressed and did some research. I learned that Camelina Oil is richer in omega-3 fatty acids, lower in omega-6 fatty acids, and higher in vitamin E than sunflower or flaxseed oil. These qualities make it a great option for dogs with liver problems, as it can help reduce inflammation and prevent oxidation. I tried it myself and added it to the list of liver-friendly oils. I recommend taking a look at it. It's mainly produced and used in Canada, but you can order it online in the US.

Liver-Friendly 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 part of the natural diet of dogs, but they can be helpful for dogs with liver problems. They provide fiber, minerals, vitamins, and complex carbohydrates. Soluble fiber, in particular, can help remove ammonia from the blood so the liver does not have to work as hard. Oatmeal is a good source of soluble fiber as long as your dog tolerates it well. Use whole rolled, steel-cut, or quick oats (cooked), which have more soluble fiber than instant oats.

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

If you want to add grains to your dog's liver-friendly diet, choose the ones that have superior nutritional profiles and health benefits.

Here are some grains that I recommend: (use organic non-GMO when possible)

- oats,
- quinoa,
- millet,
- amaranth,
- buckwheat

Barley and rice are not bad for dogs with liver disease but they should be limited and adjusted according to your dog's individual needs. They can cause blood sugar spikes, mineral deficiencies, and gluten sensitivity in some dogs.

Avoid these grains that have gluten, as they can cause food sensitivity reactions, especially in dogs with GI disorders: **couscous, rye, wheat (including pasta durum, semolina), and oats that are not labeled 'gluten-free.'**

Quinoa is a great grain to use for your dog, especially if you only use grains occasionally. It has high protein, fiber, and mineral content, and it does not contain gluten or ferment. It also provides all the essential amino acids that your dog needs. Quinoa is best used occasionally for variety because it has some oxalates and copper, which can be harmful for dogs with kidney and bladder stones or copper retention. If your dog doesn't have any of these issues, then use it regularly in rotation with other carbohydrates.

I learned more about the benefits of quinoa in the last few years, and I wish I knew about it before. When I was feeding Norman, I started with rice as the main grain in his diet. But rice was the big trigger that caused him the most problems. It really upset his stomach, and that made him extremely needy. I also used oatmeal, but I made a mistake one time and bought instant oatmeal instead of quick-cooking oats. Instant oats have less soluble fiber and break down quickly into sugar. They really upset Norman's stomach and were the cause of one of my trips to the vet. I prefer quick-cooking oatmeal because I can make them fresh for each meal and avoid fermentation.

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. They also do not ferment, so they won't cause digestive issues like grains.

Dogs can digest whole-grain pasta well. You can cook pasta separately or with vegetables. For potatoes, wash and cook them without the peel. The best way to cook potatoes is baked or in the microwave. This keeps the nutrients that are lost when boiling in water. Some books say to avoid potatoes because they are related to the deadly nightshade plants and can be toxic. But this is not true. Potatoes are very safe for humans and dogs as long as you remove any green eyes, stems, leaves, or flowers. These parts of the potato plant are toxic and dangerous. Also, remove the skin of white and sweet potatoes cooked with skin on before serving.

Some people suggest feeding grains like rice or oatmeal before pasta. I have tried both and found pasta and potatoes easier to cook and store than rice and grains. You can rotate pasta, potatoes, and healthy grains in your dog's diet and see what works best for your dog.

In the 20th anniversary edition, I want to point out that when I was feeding Norman, I didn't know about the liver-toxic dangers of glyphosate from Roundup™ that is common in grains, including wheat, which makes up pasta. I also didn't know that pasta has little nutritional value unless it's enriched. I want you to be aware of this so that if you use pasta, that you use organic or gluten-free when possible. There are a lot of pasta options to choose from now.

Currently, one of the most popular diets for liver disease was created by Dr. Jean Dodds, a veterinarian who is well known for her work on vaccines and food intolerances in dogs. Her famous Liver Cleansing diet uses white potato and sweet potato because they are good sources of fiber, antioxidants, and vitamins that can support liver health. The recipe is included in chapter 4.

Vegetables

Vegetables are usually only a small part of a natural diet, used to add vitamins, minerals and fiber. 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 altogether.

Some vegetables that are good for dogs with liver disease are green vegetables such as zucchini, green beans or cucumber, along with 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, cauliflower and asparagus because they produce too much gas for a liver dog.

Avoid or limit the use of spinach, beet greens, rhubarb, and celery because they are high in oxalates, which can cause kidney stones and urinary tract problems.

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 fruits and vegetables, but it is better to choose organic ones when possible. Some foods, called the “dirty dozen,” have more pesticide residues than others. For example, strawberries, spinach, apples, blueberries, green beans, and bell peppers are some of the most contaminated foods. Be sure to thoroughly wash all fresh produce (especially non-organic) to remove residual insecticides, dyes and waxes.

Fiber

Fiber plays an important role in your dog’s liver-friendly 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 calcium to balance the phosphorus in the diet, you can add calcium carbonate, calcium citrate or eggshell powder. For cleaning teeth

– there are toothbrushes 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, that are harmful to dogs. You should not use it as a calcium source in homemade diets. If you want to use bone meal, you should find an organic and tested product. Organic bone meal comes from healthy animals and has more minerals for your dog. You should only use human-edible versions. Do not use bone meal from home and garden stores, it is not safe for dogs.

To make your own eggshell powder: Dry them overnight. Bake them for 10 minutes at 300 degrees. Grind them in a coffee grinder. Store them in a glass jar in the fridge. Use high-quality eggs, such as pasture-raised, organic, or free-range. (For more details, see Appendix F on [How to Make Eggshell Powder](#))

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**. Garlic can help your dog's digestion and prevent fleas and worms. Basil and turmeric are also good for the liver and digestion. Ginger can calm your dog's stomach. You can add these spices to your dog's meals gradually.

Most home-cooked diets are naturally low in salt, which 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.

Note: For dogs with seizure problems, avoid neurotoxic herbs: rosemary, oregano, fennel and sage.

Water

Give your liver 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 give your dog 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, or bottled water that may have plastic or toxins.**

Your dog should always have fresh, clean, and available water in a stainless steel or lead-free glass dish. You should not use plastic or ceramic dishes for water or food. Ceramic dishes may have lead and collect more bacteria. Plastic dishes may have BPA and other chemicals that 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.

Healthy Treats

Treating your dog with something tasty is probably a normal part of your day. But instead of buying those processed treats from the store, why not make your own healthy treats that can benefit your dog's health?

Both fruits and vegetables are good for your dog. You can give your dog a few bites of the fruits and veggies listed below as treats. Avoid any citrus fruits, such as oranges, lemons, or grapefruits, as they can irritate your dog's stomach. Also, you should give fruit treats at least an hour before or after meals or before bed to avoid digestion issues. Choose organic produce or wash it thoroughly before giving it to your dog if you can.

- Chopped carrots
- Pieces of apple
- Broccoli
- Cucumber
- Green beans
- Pears
- Peas
- Cherry tomatoes
- Celery
- Coconut
- Hard-boiled eggs
- Zucchini
- Blueberries
- Raspberries
- Blackberries
- Strawberries
- Bananas
- Pineapple chunks
(used sparingly due to high acidity)

Caloric Needs – How to determine the right amount to feed

The amount of food that your dog needs depends on how many calories are in the diet and how many calories your dog needs. Calories are the units of energy that your dog gets from

food. Your dog needs enough calories to maintain his body weight and avoid using his own proteins for energy (wasting). However, too many calories can cause weight gain and put more stress on the liver.

The number of calories that your dog needs varies depending on several factors, such as the type and severity of liver disease, the level of activity, the presence of stress, inflammation, infection, or other conditions, and the goal of weight loss or gain.

For example, dogs with acute liver injury or hypermetabolism need more calories than dogs with chronic or mild liver disease. Dogs that are stressed, inflamed, or infected also need more calories than normal. Dogs that are underweight or overweight need to adjust their calorie intake to reach their ideal weight.

To find out how many calories your dog needs, you can use the table below that shows the caloric requirements for different types of dogs. First, you need to know your dog's ideal body weight. Then, you need to know your dog's activity level, which can be inactive or active. Finally, you need to know your dog's weight goal, which can be maintenance, loss, or gain. Once you have this information, you can look up the table and find the number of calories per pound of body weight per day that your dog needs.

For example, if your dog's ideal body weight is 10 lbs, his activity level is inactive, and his weight goal is maintenance, then he needs around 280 calories per day. If your dog's ideal body weight is 30 lbs, his activity level is active, and his weight goal is loss, then he needs around 496 calories per day.

Dog's Weight in Pounds	Calories Needed For			
	Senior or Inactive or Neutered	Adult Active Intact	Weight Loss	Weight Gain
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

Once you know how many calories your dog needs per day, you can divide that by the number of meals you feed him, which should be 3-4 small meals a day for dogs with liver disease. This will give you the number of calories per meal that your dog needs.

In homemade diets, it's best to know how many calories are in each serving. You can look at the recipe and see how many calories it has per cup, ounce or batch. This will help you give your dog the right amount of food for each meal.

For example, if your dog needs 950 calories per day and you feed him 4 times a day, he needs about 238 calories per meal. Then, you can measure the food based on how many calories it has per cup or per gram. For example, if the food has 400 calories per cup, you need to give him 0.6 cup per meal. If the food has 4 calories per gram, you need to give him 59 grams per meal.

Don't worry too much about getting the exact amount every time. The most important thing is to watch his weight and energy level and adjust the food accordingly. Different dogs have different needs, so you may need to experiment a bit to find the best amount for your dog.

Feeding Small Meals for Liver Disease

Dogs with liver disease need to eat small and frequent meals, not large ones. This helps their liver work better and prevents vomiting and ammonia build-up. It also keeps their appetite and energy up. You can feed your dog 3-4 small meals a day, and a small fruit snack at night if needed.

Why the Liver-Friendly Diet Works

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

Scientific evidence confirms that a liver-friendly diet can provide dogs with the essential nutrients and antioxidants needed to support liver function and regeneration. When liver disease impairs the liver's detoxification, protein production, and metabolic regulation, a liver-friendly diet becomes crucial. By improving the liver's performance and preventing further damage, this diet helps your dog's liver heal.

- It has low to moderate levels of easily digestible protein to reduce the production of ammonia, which can cause hepatic encephalopathy (HE).
- It has high-quality carbohydrates and small frequent feedings to provide energy for the body without overloading the liver.
- It has fruits, vegetables, and whole grains as sources of fiber to help eliminate toxins and bile acids from the intestine. This lowers the liver's workload and reduces the risk of complications.
- It has natural antioxidants to protect the liver from damage caused by oxidative stress, inflammation, and cell death. It also helps the liver get rid of toxins in the system.
- It has low levels of copper to avoid copper accumulation in the liver. It also helps reduce inflammation in the liver.

- It has vitamins and supplements, such as digestive enzymes, calcium, and omega-3 fatty acids, to fill the nutritional gaps, improve digestion, support the skeletal structure, and improve blood flow in the liver.
- It has pure water for drinking and cooking to flush out toxins, maintain hydration, and regulate body temperature.

Experts agree and wholeheartedly recommend healthy, fresh food diets.

Now you know about the Liver-Friendly diet, a fresh food plan that can help your dog's liver function better and heal faster. But don't just take my word for it. Many experts agree and strongly recommend this type of diet for dogs with liver problems.

One of them is the author of *Natural Health Bible for Dogs & Cats*, who says that:

"Dietary therapy is a mainstay of treating the dog with liver disease, as there are few conventional medications that actually treat liver disease."

This means that what you feed your dog can make a huge difference in their health and recovery.

Another expert is Dr. Karen Becker, my favorite holistic veterinarian and an expert in animal nutrition, author of *The Forever Dog*. She says that

"Homemade fresh food can also improve the appetite, digestion, and overall well-being of dogs with liver disease or compromised liver or shunt." This means that by feeding your dog fresh food, you can help him feel better and be happier. Isn't that what we all want for our dogs?

But why is homemade food better than commercial food? The answer is simple: Fresher is Better.

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.

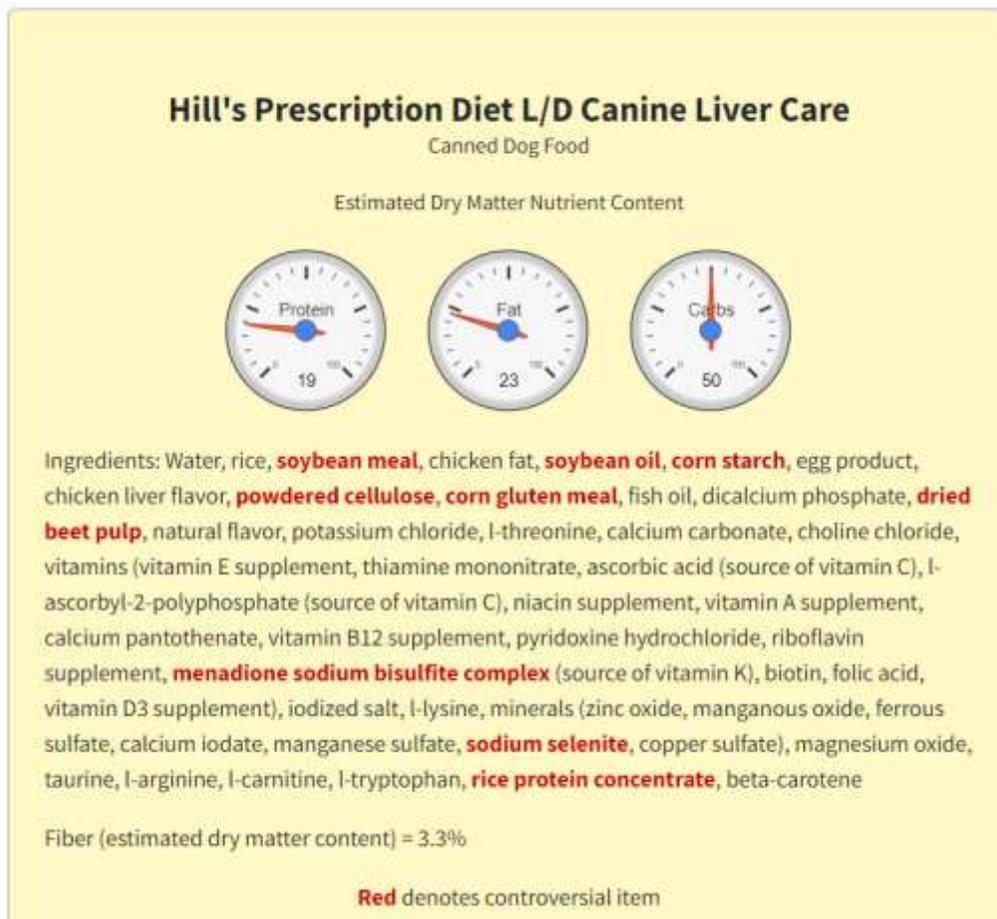
The same author of *Natural Health Bible for Dogs & Cats* explains that

"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 by-products and chemicals not desired by owners who opt for holistic care for their pets." (Author's additions in brackets.)

These are just some of the many reasons why experts support a fresh homemade liver-friendly diet. **If you want to give your dog the best chance of healing his liver and living a long and healthy life, you should try a homemade fresh liver-friendly diet today. Your dog will thank you for it.**

What's Wrong with Commercial and Prescription Dog Foods?

Do you know what's in your dog's food? If you are feeding your dog commercial food or a prescription diet, take a look at the ingredients on the bag or can. You may be surprised to see things like soybean meal, brewers rice, corn gluten meal, and menadione (synthetic vitamin K). These are some of the low-quality, controversial ingredients and chemicals that can actually harm the liver and make it work harder. You can also check out dogfoodadvisor.com, a website that rates and reviews dog food based on its ingredients and quality. You can search for your dog's food and see its ingredients, as well as which ones are controversial. (like the example below)



Now that you know what's in a liver-friendly diet and why, ask yourself: is this food good for the liver or bad for the liver? Do you think this food is going to help your dog's liver heal?

I was shocked and horrified when I learned what's really in commercial pet food. I read a book called "The Truth About Pet Food" by Susan Thixton, which exposed the secrets and scandals of the pet food industry. I also watched a movie called "Pet Fooled," which showed the lack of regulation and the impact of commercial pet food on the health of dogs and cats.

Ever since then, I have become passionate about dog food and pet nutrition. I call myself a “Dog Food Geek”. I regularly feed my healthy dogs homemade meals, but I also use commercial food as a backup when life happens, and it doesn’t work to cook.

However, my standards for commercial food are extremely high. For my healthy dog Jackson, he gets human-grade, minimally processed, high protein, low carb, fresh frozen, freeze-dried, or commercial raw or lightly cooked food. I never feed him dry or canned food. But anytime I’ve had a dog who’s not feeling well, a bout of diarrhea or vomiting, or any even minor health concern whatsoever, I ALWAYS COOK for my dog. It works! I trust myself to research and find the right food as medicine.

Cooking for your liver dog is not only a loving gesture but also a smart choice for his liver health. Here are some of the reasons why commercial pet food can damage your dog's liver.

Commercial pet food can harm your dog's liver because it:

- Has low-quality and processed ingredients, artificial vitamins and minerals, and chemicals that stress the liver and make it work harder.
- Contains synthetic vitamin K, which can be toxic and harmful to an already compromised liver.
- Uses low-quality protein sources that are contaminated with bacteria and their by-products (endotoxins), which can make your liver dog even sicker.
- Has low-quality grain products that lack the benefits of whole grains and may be contaminated with mold toxins (mycotoxins), which can cause illness.
- Does not provide the right and specific foods for each dog's individual and nutritional needs.
- Is too heavily processed and forces the liver to work harder trying to extract nutrients, which a dysfunctional liver may not be able to do, leading to further health problems.
- Contains synthetic hormones and antibiotic residues in animal meat, which can disrupt the hormonal balance and immune system of your dog.
- Contains glyphosate residues, which can damage the liver and other organs and increase the risk of cancer.
- Contains advanced glycation end products (AGEs), which are formed when food is cooked at high temperatures. AGEs can cause inflammation and oxidative stress in the liver and other tissues.
- Contains potentially toxic preservatives, such as BHA, BHT, ethoxyquin, and propylene glycol, which can affect the liver function and cause adverse reactions.

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. Giving your dog a fresh food diet has gotten easier.

JustFoodForDogs™ is a brand that offers fresh (frozen and shelf-stable) dog food diets for liver dogs. The Hepatic Support Low Fat formula has ingredients that 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, minerals and amino acids that support liver function.

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.

Why don't Vets recommend a Homemade Diet for Liver Disease?

You may be wondering if fresh homemade food is so good and commercial food is so bad. Why don't vets recommend a homemade diet to begin with?

There are a few reasons for this:

1. One reason is that homemade diets can be hard to balance and may not have the right nutrients for your dog's condition. They can also vary in quality, quantity, and consistency, which can affect your dog's liver health.
2. Another reason is that some vets may have a conflict of interest because they sell prescription food and make money from it. They may also get incentives or commissions from pet food companies to sell their products. This may bias their opinion and advice on what's best for your dog.
3. A third reason is that a UC Davis study found that most homemade diets for dogs are deficient in essential nutrients, such as calcium, zinc, copper, choline, vitamin D, vitamin E, and vitamin B12. These nutrients are important for your dog's bones, skin, nerves, immune system, and other organs. Lack of these nutrients can cause health problems like rickets, anemia, poor growth, infections, and neurological disorders. When a vet sees problems associated with a homemade diet, they tend to warn everyone against it.

Holistic veterinarians are more open to homemade diets for liver disease, because they think natural and fresh foods are better for the liver and the whole health of the animal. They also look at the individual needs and preferences of each dog and adjust the diet accordingly. However, not all holistic vets are the same, and some may still use or suggest commercial or prescription diets, depending on the situation.

But time and time again, over the last 20 years, I've heard from pet parents like you that they started cooking for their dog, and they made a full recovery and lived for many more months and even years after a terminal prognosis.

These pet parents have also told me that once their vet saw the results, they said, “Keep doing what you’re doing!”

I'm hoping that the fresh food revolution happening right now will continue and more veterinarians will encourage pet parents to feed their dogs fresh food and even hand out homemade dog food recipes for them to cook. Maybe even recommend my book.

However, it is important for the long term to make sure you are meeting all of your dog's nutritional needs and not just feeding the same food every day for months and years. To do this, you need to feed a variety of liver-friendly foods and meals and supplement the diet with vitamins and minerals that may be missing and that are key for a liver-compromised dog. I'll go more into this in the next section on HOW to prepare a liver-friendly diet.

The Liver-Friendly Diet Blueprint - How to Make a Liver-Friendly Meal

In this section, you will learn about the Liver-Friendly Diet Blueprint, a new and innovative way to create a liver-friendly diet for your dog. This is a simple and flexible way to create your own liver-friendly meals without following a strict recipe. You can customize the diet to suit your dog's preferences and needs. Of course, if you prefer to follow a recipe, you can still do that. Chapter 4 has several liver-friendly recipes that you can use as a guide. But I encourage you to read this section first and learn how to use the blueprint. You might find it easier and more fun than you think.

The Liver-Friendly Diet Blueprint: A Summary

1. **Choose Your Liver-Friendly Ingredients:** Begin by picking out ingredients that are beneficial for liver health listed in the table below.
2. **Individual Food Preparation:** Each ingredient should be prepared separately to make meal prep easy and to create a variety of combinations.
3. **Balancing Your Dog's Bowl:** Combine the appropriate portion of each protein, carbs, and vegetables together in a bowl for a balanced meal for liver disease.
4. **Adding Nutritional Supplements:** Incorporate specific supplements into your dog's liver-friendly diet to meet nutritional needs.

5. **Dishing Out the Right Amount:** Spoon out small meal-sized portions from your prepared batch, ensuring each serving is just the right amount.
6. **Nutritional Boost:** Add your dog's specific supplements into each individual meal, mix well, and serve.
7. **Proper Storage for Flexible Meal Preparation and Serving:** Keep leftovers stored in portion-sized amounts. This way, you'll always have them ready to create a variety of healthy, liver-friendly meals quickly and efficiently.

Now that you have a general overview of the liver-friendly diet blueprint, let's go into the details of how to create and customize your dog's meals.

Liver-Friendly Diet Blueprint: What to Feed, Limit, and Avoid

This table gives you a comprehensive overview of the best foods for your dog's liver health, how much to feed, what foods to limit, and what foods to avoid completely.

Category	Amount	Liver-Friendly Foods	Limit	Avoid
Protein	15-35% of the meal	white fish, chicken, turkey, egg, cottage cheese, yogurt, cheese, tofu, TVP	beef, chicken liver, nut butters, chickpeas, beans, lentils	raw meat, beef liver, duck, lamb, salmon, tuna, sardines, pork, organs
Fat	0-2 tsp or 1-2 tbsp a day	flaxseed oil, extra virgin coconut oil, extra virgin olive oil, camelina oil, primrose oil, hemp oil	sunflower oil*, safflower oil*, canola oil*, salmon oil**, ground flax seeds, ground chia seeds, ground hemp seeds	generic fish oil, cod liver oil, corn oil, vegetable oil, butter, lard, bacon fat, margarine
Carbohydrate	35 to 60% of the meal	sweet potatoes, white potatoes, oatmeal, squash, millet, amaranth, buckwheat	quinoa, pasta* (polenta), white and brown rice, barley, wheat*	wheat gluten, couscous, rye
Vegetables	20 to 30% of the meal	zucchini, green beans, carrots, cucumber, pumpkin, celery, artichoke	beets, peas, broccoli, cauliflower, brussels sprouts, cabbage, kale, radish, spinach	mushrooms, beet greens, rhubarb, asparagus, swiss chard, tomato, onion, chives
Fruit	0 to 5% of the meal	apples*, blueberries*, watermelon, papaya, bananas, pear	cranberries, raspberries, strawberries*, peaches, plums, kiwis, pineapple	raisins, grapes, lemons, limes, grapefruit, oranges

Category	Amount	Liver-Friendly Foods	Limit	Avoid
Herbs, Spices	Amount varies, see guidelines	parsley, dill, oregano, thyme, basil, turmeric, sage, licorice root, artichoke leaf	nutritional yeast, garlic, cilantro, ginger	onion powder, salt
Calcium	Amount varies, see guidelines	calcium carbonate, calcium citrate, eggshell powder		bonemeal, bones
Supplements	Amount varies, see guidelines	Multi-Vitamin, B-Complex, Vitamin E, Vitamin C, Zinc	Vitamin D, CBD	copper, Vitamin A
Water	4-8oz per 10 lbs per day	fresh filtered, reverse osmosis, distilled	tap water	plastic and ceramic bowls

Notes:

* Organic, Non-GMO

** Wild or Sustainably Harvested

Step 1: Choose Your Liver-Friendly Ingredients

The first step is to select the ingredients for your dog's meal from the Liver-Friendly Diet Blueprint.

You will need:

- One protein source that is low in sodium and copper, such as cod white fish, chicken breast, or cottage cheese.
- One carbohydrate source that is high in fiber and easy to digest, such as sweet potatoes, white potatoes, quinoa, or pasta.
- Two or three vegetable or fruit sources that are rich in antioxidants and vitamins, such as zucchini and green beans.
- One oil source that is high in omega-3 fatty acids and anti-inflammatory properties, such as flaxseed oil.

Step 2: Individual Food Preparation

In this section, I will give you instructions on how to prepare each ingredient separately. This will allow you to customize the portions and combinations of your dog's meals. It will also help you prevent food spoilage and waste.

To prepare each ingredient, follow these general guidelines:

- Wash, peel, and chop the vegetables and fruits.
- Cook the protein and carbohydrate sources until they are soft and done. You can use water or broth to cook them.
- Let the ingredients cool down before storing them in separate containers.
- Refrigerate the ingredients that you will use within 3 days. Freeze the rest in individual portions for later use. Thaw the frozen ingredients in the refrigerator before using them.

Preparing Protein (Meat, Eggs, Fish, Soy)

Meat - Start with lean meat such as skinless, boneless chicken parts (breasts or thighs) or turkey. If you're purchasing in bulk, divide it into portions suitable for single meals, daily batch or amount for a 3-day batch. Wrap each portion in plastic wrap and store them in a freezer bag.

- **Thawing the Meat** - Select one portion of the meat from the freezer and let it thaw overnight in the refrigerator.
- **Cooking the Meat** - There are several methods to cook the meat for your dog:

To keep food nutrient-rich and moist while avoiding harmful elements from overcooking, it's best to gently cook by poaching, simmering, or stewing.

Simmering: Put the thawed meat in a pot with enough water to barely cover it. Bring the liquid to a boil, then lower the heat to maintain a gentle simmer and cook the meat for the time and temperature appropriate for the type and cut of meat you are using. You can add some spices, herbs, or vegetables to the pot to enhance the flavor and nutrition of the meat and the liquid. Use a spoon to remove any fat or foam that forms on the surface. Take the meat out of the pot and let it cool before cutting or serving. Remove any bones, and chop into bite-size pieces. You can use the liquid to make a sauce or gravy for the meat or freeze it in ice cube trays and save it for other recipes.

Poaching: Place thawed meat in a pot or skillet, covering it with an inch of water. Add spices or herbs for flavor if desired. Let it cook slowly until done. Save the remaining nutrient-rich liquid. You can add it to the rest of the recipe or save it for use later.

Stewing: Cut the thawed meat into bite-sized pieces. Put the meat in a large pot or a Dutch oven and add enough water to barely cover it. You can also add some carrots, celery, or other liver-friendly vegetables to the pot. Bring the liquid to a boil, then lower the heat to low. Cover the pot with a lid and simmer the stew until the meat is tender, stirring occasionally. This can take from 1 to 3 hours, depending on the type and cut of meat you are using.

Baking: Preheat your oven to 350 degrees, place the meat on a baking tray and bake until thoroughly cooked.

- **Storing the Cooked Meat** - Store the cooked meat in a food storage container in the refrigerator, with or without the broth. The meat can be kept in the refrigerator for up to 3 days.
- **Freezing the Leftovers** - Any portion of the cooked meat that isn't consumed within 3 days can be frozen for later use. Freeze the cooked meat in portion sizes for individual meals or batch sizes.

Fish: Bake or poach fish in water, and remove any bones, skin, or scales before serving.

Eggs: Cook the eggs over easy (runny), scrambled, or soft-boiled. Remember not to add any salt, oil, or seasonings. If you want to make your own eggshell powder, save the shells for later.

Tofu: To cook tofu, first drain the water and chop it into small bite-sized pieces. You can either simmer it in water or broth until tender or mix it with other ingredients and cook together. Tofu absorbs the flavors it's cooked with, so add some broth for extra taste if cooking it alone.

Choosing the right tofu for your homemade dog food can depend on your dog's specific tastes and nutritional needs. While some dogs may not be fans of tofu's texture or flavor, others may take to it quite well. It might take a bit of trial and error with different types and recipes to find what works best.

Typically, firm or extra-firm tofu is most suitable for homemade dog food. These varieties are easier to chop, cook, and incorporate into meals, plus they offer a higher content of calories, protein, and calcium.

But if you're new to the world of tofu preparation, don't worry! I've got some easy tips to guide you.

Tofu comes in several varieties - silken, soft, firm, and extra firm. Each type has its own unique texture and water content, which can influence how you want to prepare and cook it. Let's explore some simple cooking tips for each type of tofu, along with their respective calorie and protein contents.

Silken Tofu: The softest and most delicate tofu, perfect for raw consumption or gentle addition to dishes. For example, you can mix it with fruit for a delicious snack for your dog. To serve, simply scoop it out like yogurt. A half-cup serving offers 55 calories and 5.5 grams of protein.

Soft Tofu: This tofu is firmer than silken but still tender, making it a great choice for creating a scrambled egg-like dish for your dog with other ingredients mixed in. Drain for a few minutes before use and then crumble or cut into pieces. A half-cup serving contains 76 calories and 8.2 grams of protein.

Firm Tofu: This tofu retains its shape well, making it great for marinating, frying, or baking. It can be easily cut, cooked, or mixed with other ingredients for a hearty dog meal. Before using, press it for at least 15 minutes to remove excess water and

improve its texture. A half-cup serving provides 94 calories and 10.1 grams of protein.

Extra Firm Tofu: Being the densest and driest tofu, it's ideal for dishes requiring a lot of handling or high heat, such as roasting or baking. You can use it to make larger or firmer nuggets for big dogs. Press it for at least 30 minutes before use to get a firm, crispy texture. A half-cup serving gives 120 calories and 12.8 grams of protein.

Textured Soy Protein (TVP): To prepare TVP for a meal or daily batch, follow the instructions provided on the package for rehydration, typically involving the use of hot water or broth. Be sure to only prepare the amount needed for the individual meal or daily batch to ensure freshness. After the TVP is properly rehydrated and any excess liquid drained, allow it to cool before adding it to your recipe.

Preparing Fresh Vegetables

- Pick 3 fresh liver-friendly vegetables, such as carrots, zucchini, and green beans.
- Wash the vegetables to remove any dirt, pesticides, or germs. Peel or trim them if needed.
- Cut the vegetables into small pieces that suit your dog's size and taste. For small dogs, make the pieces very fine. For medium dogs, make them coarsely chopped. For large dogs, make them bite-sized.
- Cook the vegetables for 1 to 3 minutes in boiling water or steam to soften them and make them more digestible. This also kills any harmful bacteria and parasites. Don't overcook the vegetables, as this can reduce some of the vitamins and minerals.
- Mix the cooked vegetables and store them in a sealed container in the fridge for up to 3 days. You can also freeze them into individual portions for up to 3 months.

Preparing Frozen Vegetables

- Cook frozen vegetables according to the directions on the package. Choose the lowest cooking time so the vegetables are soft but not soggy.
- Cut the cooked vegetables into small pieces that suit your dog's size and taste.
- Store them in a separate container in the fridge for up to 3 days. If you make a large batch, you can use molds that hold anywhere from ¼ cup to 1 cup to freeze the portions for single meals, daily batches or 3-day batches.

Preparing Grains, Potatoes, Pasta, and Other Items

- **Grains** – Cook longer and with more water than you might cook for yourself to enhance digestibility. Refrigerate separately in a food storage container for up to 1 day. Freeze extra in portion-size molds to be used in individual meals or daily batches.
- **Pasta** – Cook 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** – Wash, peel and chop sweet potatoes or potatoes, and boil or bake until soft. Mash or puree if needed. Refrigerate separately in a food storage container for up to 3 days. If you'd rather not peel them

beforehand, there's an alternative method: score the potatoes around the middle with a knife before boiling. Once they're cooked and have cooled down slightly, you can easily peel off the skin from each side of the cut line. If you prefer, you can also freeze the boiled potatoes with their peels on in portion sizes. When you defrost them, the skin will come off effortlessly. At this point, you can chop or mash them before adding them to your meal.

- **Nutritious Meat Broth** – To make fresh broth, you need a pound of lean meat. Slice the meat into small, cook-friendly pieces and place it in a large pot or slow cooker, covering it with water. Feel free to add liver-friendly veggies and herbs like carrots, celery, parsley, garlic, and ginger, which boost the broth's nutritional content and flavor. Boil the mixture for 5-10 minutes and skim off the fat from the top. Then, simmer for 1 hour or until the meat is tender. Afterward, strain the broth to remove solids and meat, which you can save for later meals if you wish. Allow the broth to cool entirely before refrigerating or freezing. To remove fat, let the chilled broth sit overnight, then skim off the solidified fat the next morning. Store the broth in a sealed container in the fridge for up to a week, or freeze it in portion-sized ice cube trays or molds for up to three months.

Preparing Beans, Lentils and Legumes

- **Beans & Legumes** – To reduce gas from larger varieties of beans like pinto, black, kidney, and garbanzo beans, soak them overnight, rinse three times, and discard the water. Cook until very soft, with potato or a piece of kombu (discard when done). Mash well by hand or in a food processor to improve digestion. Give digestive enzymes with meals with beans until the gut flora adapts. An Instant Pot can save time when cooking beans. If you use canned beans or chickpeas, choose organic, low-sodium or sodium-free canned beans and rinse them well before mashing and feeding. You can freeze extras in portion-size molds (leave room at the top for expansion) and thaw as needed.
- **Lentils** – Small beans and lentils do not require pre-soaking and can be fed whole. To cook lentils, rinse them well, boil them in water until soft, and drain them before serving. Refrigerate separately and freeze in portion-size molds to be thawed and used in individual meals.

Step 3: Balancing Your Dog's Bowl

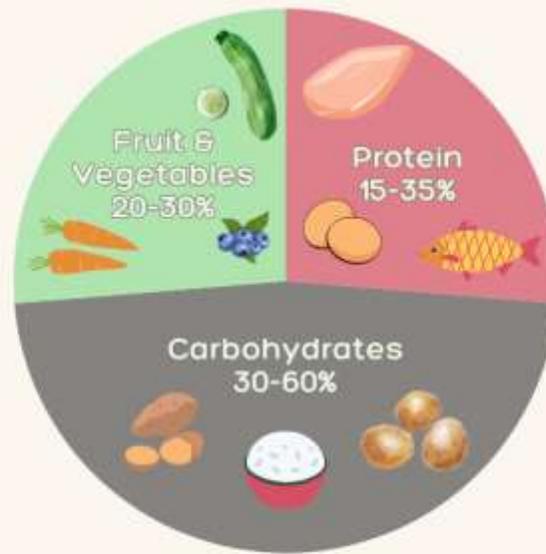
Combine the Appropriate Portion of Each Protein, Carbs, and Vegetables Together in a Bowl for a Balanced Meal

One of the challenges of preparing a liver-friendly diet is to figure out how much of each ingredient to put in the bowl. Most books show percentages of food by calories, but that can be confusing and complicated, especially if you are not using strict recipes. That's why I have created a simple and easy way to balance your dog's bowl by volume. This means you can measure the amount of food using a cup, a tablespoon, or a teaspoon. In this section, I will show you the guidelines for how much protein, carbohydrates, and vegetables to put in your dog's bowl, depending on their weight, condition, and needs.

I've created a Liver-Friendly Diet Blueprint to help you visualize the proportions of protein, carbohydrates, and vegetables in your dog's liver-friendly diet. This pie chart shows the range amounts by volume for each type of food group. You can use this blueprint as a guide to balance your dog's bowl according to their individual needs.

LIVER-FRIENDLY DIET BLUEPRINT

(as a percentage of the volume)



Note: Fats and Supplements are not included in this image

Protein: 15-35% protein foods by volume

Protein is the most crucial factor in a liver-friendly diet, as it affects the liver function, the ammonia levels, and the risk of hepatic encephalopathy (HE). Therefore, you need to carefully adjust the amount of protein in your dog's meal according to their condition and needs.

A general guideline is to **start with 25% of the meal as protein foods by volume**. However, this may vary depending on your dog's situation. Here are some possible scenarios:

If your dog has a shunt or is at high risk for HE, you may need to reduce the protein to a minimum of 15% of the meal by volume. This means that if you are feeding your dog 1 cup of food, then each meal will have about 2 ½ tablespoons of protein foods.

If your dog is doing well and the liver has recovered, you may need to increase the protein to 35% of the meal by volume. This means that if you are feeding your dog 1 cup of food, then each meal will have about ½ cup of protein foods.

If your dog is somewhere in between, you may need to adjust the protein accordingly, within the range of 15-35% of the meal by volume. You can use a measuring cup or a tablespoon to measure the amount of protein foods.

Table: Volume Amounts of Protein Foods by Percentage

Total Volume	15% of volume	25% of volume	35% of volume
1 cup	2.4 tbsp	1/4 cup	1/3 cup + 1 tbsp
2 cups	1/3 cup	1/2 cup	2/3 cup + 2 tbsp
1/2 cup	3 1/2 tsp	2 tbsp	2 tbsp + 2 tsp
1/4 cup	2 tsp	1 tbsp	4 tsp

This table shows the volume amounts of protein foods by percentage for different total volumes of food. You can use this table as a guide to measure the amount of protein foods in your dog's meal.

Carbohydrates: 30-60% by volume

The amount of carbohydrates you should feed your dog depends on their individual needs and preferences. You should **start in the middle range of 45%** of the meal.

For example, if you are feeding your dog 1 cup of food, then each meal will have 1/2 cup of carbohydrates.

If your dog has a shunt or is at high risk for HE, then you may need to increase the carbohydrates up to 60% of the meal. For example, if you are feeding your dog 1 cup of food, then each meal will have 2/3 cup of carbohydrates.

If your dog is doing well and liver has recovered, then you may need to decrease the carbohydrates down to 30% of the meal. For example, if you are feeding your dog 1 cup of food, then each meal will have 1/3 cup of carbohydrates.

Vegetables: 20-30% by volume

The amount of vegetables you should feed your dog depends on their individual needs and preferences. You should **start in the middle range of 25%** of the meal.

For example, if you are feeding your dog 1 cup of food, then each meal will have 1/4 cup of vegetables.

If your dog has a shunt or is at high risk for HE, then you may need to increase the vegetables up to 30% of the meal. For example, if you are feeding your dog 1 cup of food, then each meal will have 1/3 cup of vegetables.

If your dog is doing well and liver has recovered, then you may need to decrease the vegetables down to 20% of the meal. For example, if you are feeding your dog 1 cup of food, then each meal will have 1/5 cup of vegetables.

Fruit: 0-5% by volume

Fruit is an optional part of the liver-friendly diet. You can give your dog fruit as a snack or as a small portion of the meal. Fruit can provide some vitamins, antioxidants, and fiber for your dog.

However, fruit also contains sugar, too much can be harmful for dogs with liver problems.

Therefore, you should limit the amount of fruit to no more than 5% of the meal.

For example, if you are feeding your dog 1 cup of food, then each meal can have up to 1 tablespoon of fruit.

You can also give your dog fruit alone or mixed with other foods, such as cottage cheese and blueberries or silken tofu and apples. These combinations can help balance your dog's diet's sugar and protein levels.

Herbs & Spices Guidelines

Here are some general guidelines for herbs and spices that you can use in a liver-friendly diet.

For every 20 pounds of body weight, add this amount per day:

- Parsley: 1/2 teaspoon
- Dill: 1/4 teaspoon
- Oregano: 1/8 teaspoon
- Thyme: 1/8 teaspoon
- Basil: 1/8 teaspoon
- Turmeric: 1/2 teaspoon (plus black pepper and coconut oil)
- Sage: 1/8 teaspoon
- Licorice root: 1/4 teaspoon (not more than six weeks at a time)
- Artichoke leaf: 1/4 teaspoon

How to Add Herbs and Spices to a Liver-Friendly Diet

Introduce herbs gradually to your dog's liver-friendly diet. Your dog might not eat the food if it smells or tastes drastically different because of the herbs.

- Choose fresh or dried herbs, depending on availability and preference.
- Choose individual or blended herbs, depending on health benefits and taste.
- Add herbs when cooking or after cooking, depending on the type of herb and the cooking method. Generally:
 - Add basil, dill, oregano, rosemary, sage, and thyme when cooking, near the end of the cooking time, and use a moderate amount.
 - Add parsley, licorice root, and artichoke leaf after cooking, and sprinkle or drizzle them on top of the food.
- Add herbs by measuring or eyeballing, depending on accuracy and consistency. Generally:
 - Use 1/4 to 1/2 teaspoon of dried herbs per cup of food.

- Use 1 to 2 teaspoons of fresh herbs per cup of food.
- Chop, mince, or crush fresh herbs before adding them to the food.

Example recipe:

- In a skillet, poach turkey for 20 minutes or until done.
- Cook sweet potatoes, beets, and zucchini. Chop into small pieces.
- Combine 1 teaspoon of each: fresh parsley, grated turmeric, and coconut oil together to make a paste.
- Combine ¼ cup of turkey, ½ cup of sweet potatoes, ¼ cup of zucchini and a tablespoon of beets and mix together.
- Stir in ⅛ teaspoon of dried basil for flavor and health benefits.
- Add ⅛ teaspoon of parsley, turmeric, and coconut oil paste mixture.
- Stir the mixture well and give your dog a small amount as a meal.

This will make a delicious and nutritious liver-friendly meal that can support liver function and recovery.

How to Adjust the Proportions of Protein, Carbohydrates, and Vegetables for Your Dog's Liver Needs

When just starting out: use 25% protein, 50% carb, and 25% veggies.

If you are feeding your dog 1 cup of food, then each meal will have ¼ cup of protein, ½ cup of carbohydrates, and ¼ cup of vegetables.

For example, you can use ¼ cup of cooked chicken breast, ½ cup of cooked brown rice, and ¼ cup of steamed zucchini. This will provide a balanced and the liver-friendly meal for your dog.

If you need low protein because your dog has shunt or HE: use 15% protein, 55% carb, and 30% veggies.

If you are feeding your dog 1 cup of food, then each meal will have about 2 ½ tablespoons of protein, ⅔ cup of carbohydrates, and ⅓ cup of vegetables.

For example, you can use 2 ½ tablespoons of scrambled eggs, ⅔ cup of cooked oatmeal, and ⅓ cup of mashed pumpkin. This will provide a low-protein and high-fiber meal for your dog that can help to reduce the ammonia levels in the blood.

If your dog is doing well and you are in maintenance mode: use 1/3rd each.

If you are feeding your dog 1 cup of food, then each meal will have ⅓ cup of protein, ⅓ cup of carbohydrates, and ⅓ cup of mixed vegetables.

For example, you can use 1/3 cup of cooked turkey, 1/3 cup of cooked quinoa, and 1/3 cup of chopped mixed veggies (celery, carrots, and peas). This will provide a high-quality and nutrient-dense meal for your dog that can support the liver function and recovery.

As you prepare meals for your dog, you will learn how much of each food to put in the bowl. It may take some adjustment, but you will soon find the right balance for your dog's liver needs.

Step 4: Adding Nutritional Supplements

Incorporate Specific Supplements into Your Dog's Meal to Meet Nutritional Needs

Supplements are essential for providing adequate nutrients to your dog's homemade diet. However, not all supplements can be added to the food in the same way. Some supplements may alter the taste or texture of the food, while others may interfere with the digestion or absorption of the food. Therefore, you need to follow the specific instructions for each supplement and add them to the diet accordingly.

Here are some general guidelines for adding supplements to your dog's liver-friendly diet:

Essential Fatty Acids:

Omega-3 Fatty Acids can reduce inflammation and help your dog's liver repair and regenerate. You can add some omega-3 fatty acids to your dog's meal by using oils like flaxseed oil or supplements like Missing Link™.

However, you should not give your dog too much fat because it can have negative effects like weight gain, pancreatitis, or diarrhea.

A general rule is to use no more than 1 teaspoon of oil per 10 pounds of your dog's weight per day, or 2 teaspoons of oil per pound of food. This may vary depending on the type of oil, the type of food, and your dog's needs.

You can mix the oil with the whole batch of food. Supplements like Missing Link™ are added to a daily batch or individual meal and should not be reheated.

Multi-vitamin:

A multivitamin is a convenient way to provide your dog with a balanced and complete spectrum of vitamins and minerals. It can help to fill in any nutritional gaps and prevent deficiencies that may affect the overall health of your dog.

For example, you can use Vetri-Science™, which is a popular and trusted brand of multivitamin for dogs. You can give your dog the appropriate dosage per day. These are not added to the meal but are given as a supplement once a day.

Another option is to use a supplement that has all the right nutrients for liver disease. For example, Vetri-Science Canine Liver™ has Zinc, Vitamin E, B Vitamins, Milk Thistle and more.

Calcium:

If you feed your dog a meat-based diet, you need to supplement it with calcium. Calcium helps balance the phosphorus in meat and keeps your dog's bones, teeth, muscles, and nerves healthy. You can add calcium carbonate or eggshell powder to your dog's food to provide them with this essential mineral.

For example, for every pound of food, you can mix in:

- 1 teaspoon of calcium carbonate or
- ½ teaspoon of powdered eggshells

You can add calcium to the whole batch of food and mix it in well.

Step 5: Dishing Out the Right Amount

Spoon Out Small Meal-Sized Portions from Your Prepared Batch, Ensuring Each Serving Is Just the Right Amount

In the liver-friendly diet blueprint, I am not using calories as a guide but rather a simple percentage of body weight. This is because calories can be hard to measure and vary depending on the ingredients and preparation of the food. The percentage of body weight is easier to use and more consistent. However, you can still use the calories as a reference or a check if you want to be more precise or compare different foods.

The amount of food you should feed your dog depends on their body weight, activity level, age, and health condition. A general guideline is to feed your dog 2%-3% of their body weight per day.

A general guideline is ½ - ¾ cup of food per 10lbs per day. For example:

- For a 10lb dog, feed 1/2 to 3/4 cup of food per day.
- For a 20lb dog, feed 1 to 1.5 cups of food per day.
- For a 30lb dog, feed 1.5 to 2.25 cups of food per day.
- For a 50lb dog, feed 2.5 to 3.75 cups of food per day.

The Power of Small Portions

Feeding your dog small meals can help his liver work better and avoid complications. It can also keep his appetite and energy up. You should give your dog 3-4 small portions of food per day, every 4 hours or so. You can also give him a small fruit snack at night if he likes it.

Every dog is different. You may need to change the amount and frequency of feeding based on your dog's weight, energy level, and appetite. Here are some tips to help you:

- If your dog leaves food in his bowl, you may be feeding him too much. Try to reduce the portion size or the number of meals.

- If your dog seems hungry all the time, you may need to feed him more. Try to increase the portion size or the number of meals.
- Check your dog's weight and body shape regularly. If your dog is losing weight, you may need to feed him more. If your dog is gaining weight, you may need to feed him less.
- Monitor your dog's condition and consult your vet if you have any concerns or questions.

Step 6: Nutritional Boost

Add Your Dog's Specific Supplements into Individual Meal, Mix Well, and Serve

In addition to oils, multivitamin, and calcium, your dog might need other supplements too, depending on their health needs.

Here are some examples of other supplements and when to add them:

- Add digestive enzymes to individual meals just before you feed your dog, but not at the same time as probiotics.
- Add probiotics to individual meals just before you feed your dog, but not at the same time as probiotics.
- Add flavored liquid milk thistle to individual meals. Don't add powdered milk thistle to the meal because it's bitter, and your dog might not eat their meal.
- For pills like vitamin E and milk thistle, you can hide them in the food or give them to your dog right before or after eating.
- For homeopathic remedies, give them to your dog when their stomach is empty, and wait 15 minutes before feeding them.

Step 7: Proper Storage for Flexible Meal Preparation and Serving

Don't keep cooked food in the fridge for more than three days. Freeze leftovers in portion-sized containers, molds, trays or bags. Label them with the date and ingredient name. When freezing, leave some space for expansion and use them within 1-3 months.

To make liver-friendly meals for your dog in minutes, defrost the ingredients you need and warm them up in a skillet or a microwave. Mix them together to make a quick meal or daily batch.

Liver-Friendly Meal Examples

To help you plan your meals and batches using the Liver-Friendly Blueprint, I have prepared some examples for you. These examples show you how to balance the Protein/Carb/Veg ratio and measure the ingredients by volume. **All the foods are cooked before serving.**

25/45/30: Just starting out

¼ cup Chicken breast,
½ cup of rice,
⅛ cup of carrots,
⅛ cup green beans,
⅛ tsp flaxseed oil,
Vetri Science Canine Multi-vitamin (daily)

15/60/25: Shunt or HE, low protein

⅓ cup Lean Ground Turkey,
1 ¼ cup Sweet Potato,
¼ cup Zucchini,
¼ cup Green Beans,
1 tbsp Beets
1 tsp coconut oil
¼ tsp turmeric
¼ tsp parsley
Pinch of black pepper
¼ tsp eggshell powder,
Vetri-Science Canine Liver (daily)

1/3rd of each: Maintenance

⅓ cup of Lean Ground Beef,
⅓ cup Sweet Potato,
¼ cup Normandy mix vegetables
1 tbsp beets
½ tsp eggshell powder
¼ tsp Missing Link
Vetri-Science Canine Liver (daily)

35/30/35: Vegetarian, High Fat

⅓ package Organic Firm Tofu (4oz)
2 large eggs scrambled
¼ cup quinoa
⅓ cup spinach
⅓ cup peas
¼ tsp turmeric powder
¼ tsp garlic powder
¼ tsp flaxseed oil
100 IU Vitamin E daily
15mg Zinc Picolinate daily
B-Complex daily

Optional - beef or chicken broth for flavor

1/3rd of each: Maintenance - quick meal

2 eggs hard-boiled or scrambled

½ cup cooked oatmeal

Optional ½ cup low sodium broth (used to make the oatmeal)

¼ cup carrots

¼ cup green beans

Optional ¼ tsp eggshell powder or calcium carbonate

The Healing Power of Food

The liver-friendly diet is not only about avoiding foods that harm the liver but also about choosing foods that heal the liver. The foods I recommend in the liver-friendly blueprint are rich in nutrients, antioxidants, and anti-inflammatory compounds that support liver function, digestion, and overall health. This table of food items shows what each food item contains and the function or benefit of that food item in general and in relation to liver disease. By following the liver-friendly diet, you can help your dog recover from liver damage, prevent further complications, and improve their quality of life.

Food Item	What It Contains	Main Benefits
Apples	Pectin, antioxidants, fiber, vitamin C, potassium, quercetin	Cleanses the liver, lowers cholesterol, and boosts immunity
Artichokes	Cynarin, silymarin, antioxidants, fiber, vitamin C, folate, magnesium, potassium	Supports liver function, bile production, digestion, detoxification, and cholesterol regulation
Barley	Beta-glucan, antioxidants, fiber, vitamin B1, vitamin B3, selenium, phosphorus, copper, manganese	Lowers cholesterol, supports liver health, and regulates blood sugar
Basil	Eugenol, antioxidants, vitamin A, vitamin K, vitamin C, manganese, iron, calcium	Enhances liver function, digestion, and immunity
Beets	Betaine, antioxidants, fiber, folate, manganese, potassium, iron	Improves liver health, blood circulation, and detoxification
Blackberries	Anthocyanins, antioxidants, fiber, vitamin C, vitamin K, manganese, copper	Improves liver function, brain health, and immune system
Blueberries	Anthocyanins, antioxidants, fiber, vitamin C, vitamin K, manganese	Prevents liver damage, improves memory, and lowers blood pressure
Carrots	Beta-carotene, antioxidants, fiber, vitamin	Protects the liver from oxidative stress, enhances vision, and supports skin health

Food Item	What It Contains	Main Benefits
	A, vitamin K, biotin, potassium	
Celery	Apigenin, antioxidants, fiber, vitamin K, vitamin C, vitamin A, folate, potassium	Improves liver function, lowers blood pressure, and fights inflammation
Cranberries	Proanthocyanidins, antioxidants, fiber, vitamin C, vitamin E, vitamin K, manganese	Prevents urinary tract infections, supports liver health, and reduces oxidative stress
Eggs	Protein, choline, biotin, selenium, vitamin B12, vitamin D	Provides essential amino acids, supports liver cell regeneration, and prevents fatty liver disease
Garlic	Allicin, antioxidants, vitamin B6, vitamin C, manganese, selenium	Stimulates liver enzymes, lowers cholesterol, and fights bacteria
Parsley	Chlorophyll, antioxidants, vitamin C, vitamin K, folate, iron, calcium	Cleanses the blood, reduces inflammation, boosts immunity, and prevents kidney stones
Pineapple	Bromelain, antioxidants, vitamin C, vitamin B6, manganese, copper	Aids digestion, reduces inflammation, and fights infections
Potatoes	Starch, fiber, vitamin C, vitamin B6, potassium, manganese, copper	Provides energy, supports liver function, and balances electrolytes
Prunes	Sorbitol, antioxidants, fiber, vitamin A, vitamin K, potassium, iron, boron	Promotes digestion, prevents constipation, and strengthens bones
Raspberries	Ellagic acid, antioxidants, fiber, vitamin C, vitamin K, manganese, copper	Inhibits cancer growth, boosts metabolism, and regulates blood sugar
Squash/Zucchini	Carotenoids, antioxidants, fiber, vitamin A, vitamin C, vitamin B6, manganese, potassium	Supports liver health, eye health, and weight loss
Sweet potato	Beta-carotene, antioxidants, fiber, vitamin A, vitamin C, vitamin B6, manganese, potassium	Improves liver health, vision, and skin health
Turmeric	Curcumin, antioxidants, anti-inflammatory compounds, manganese, iron, potassium	Protects the liver from toxins, reduces inflammation, and prevents cancer

As you can see from the table, garlic is one of the best foods for your dog's liver. But that's not all. Garlic has many other amazing properties that can help your dog in various ways. Here are some of the health facts about garlic that you may not know.

Health Fact

Garlic is a natural wonder that can cleanse and heal your dog's body. It is a liver booster, as it helps break down and remove waste from the blood. It aids your dog in absorbing nutrients and expelling toxins through the whole digestive tract. Garlic has a detoxifying effect, which can help the liver function better.

Garlic also supports the good bacteria in the gut and fights off the bad ones. It is ideal for the colder seasons when your dog needs to detox and balance their digestive system.

Garlic can also prevent blood clots, lower cholesterol, widen blood vessels, stop tumor growth, stimulate the lymphatic system, and act as an antibiotic, anti-fungal, and anti-parasitic agent. Garlic is especially useful as a dewormer for pets. Garlic can even fight cancer cells and lower blood sugar and blood pressure. Garlic is truly amazing for your dog's blood and overall health.

Garlic is a gift from nature that can enhance your dog's well-being. Try adding some garlic to your dog's diet and see the difference for yourself. The recommended dosage is 1/3rd teaspoon per 10 lbs per day. Garlic is only toxic to dogs in extreme amounts, like 40 cloves a day.

Try the Liver-Friendly Diet Today: Your Dog Will Love You for It

You have learned a lot in this chapter about the liver-friendly diet and how it can help your dog with liver disease or shunt. The liver-friendly diet is not only a way to manage your dog's condition, but also a way to improve their quality of life. By following the liver-friendly diet, you can help your dog recover from liver damage, prevent further complications, and enhance their well-being. Your dog will love you even more for it.

This is the main message of the 20th-anniversary edition of this book. In the previous editions, I only gave you a simple guide to healthy homemade dog food and 10 liver-friendly recipes. But now, I have added much more information and options for you to choose from. I have made it simple and easy for you to follow the liver-friendly diet blueprint, but also powerful and effective for your dog's health and healing.

Of course, the final decision on what to feed your dog is yours. You should do what you feel comfortable with and what your dog responds well to. You know your dog best, and you want the best for them.

But don't stop here. There is more to discover in the next chapter. You will find out how to make the Fresh & Flexible Liver-Friendly Meal Options, which are examples of how to apply the diet in practice. You will also read recipes from veterinarians, see long-term balanced recipes, samples from BalanceIt™, and the original recipes that have helped thousands of dogs live longer and happier.

The next chapter is full of recipes that will make your dog's mouth water and their liver happy. So, are you ready to try the liver-friendly diet today? Let's get started!

Chapter 4 – The Liver-Friendly Diet In Action:

A Variety of Recipes and Options

*“Because of its continuous and lifelong impact, nutrition might be the most important environmental factor for health. Indeed, food is one of the most potent and influential ways to build or destroy health in our companions; **it can either heal or harm.**” - The Forever Dog.*

Welcome to the chapter where you will see the liver-friendly diet in action. In this chapter, you will find a variety of recipes that are sure to help heal your dog’s liver. These recipes are designed to provide your dog with the best nutrition and flavor while also supporting their liver function and enhancing their overall well-being.

In this 20th-anniversary edition of my book, I have added some new and exciting features to this chapter. These include:

- **A new Fresh & Flexible Liver-Friendly Meal Option:** This is a new feature that I have created to show you how easy and versatile the liver-friendly diet can be. This option allows you to use simple and common ingredients that you can easily find and cook and that offer a balanced and moderate mix of nutrients and flavors for your dog. You can use this option as a quick and convenient substitute for a formal recipe, or you can add it to the other recipes in this chapter to create more variety and options for your dog's meals.
- **Veterinarian-approved recipes:** These are recipes that have been specifically formulated by veterinarians for dogs with liver disease. They provide the most accurate and precise nutritional information and guidelines. You can trust these recipes to be safe and effective for your dog.
- **Examples from recipe builder BalanceIt™:** These are recipes that have been created using a recipe builder tool called BalanceIt, which allows you to create your own recipes using a variety of ingredients. You can either follow these recipes exactly while adding the BalanceIt Canine™ supplement or use them as a springboard for your own creations.
- **Balanced versions of 3 of the original recipes:** These are recipes that I have modified and improved from the original recipes that I published in the first edition of this book. I have used specific supplements to balance these recipes and to make them more suitable for long-term feeding.
- **The original recipes:** These are the recipes that I have used and shared with you in the first three editions of this book. These are the recipes that have helped Norman and countless other dogs overcome liver disease and live a healthy and happy life. These recipes are still valid and useful, but they may not be as balanced and optimal as the new recipes. You can use these recipes to see where I started and how I

progressed, and you can also compare them with the new recipes to see the differences and improvements.

Now that we've talked about the different kinds of recipes in this chapter, let's get to the fun part and take a close look at these recipes themselves.

Fresh & Flexible Liver-Friendly Meal Options

This sample recipe contains 20-25% protein, 40% carbohydrates, and 30-40% vegetables. It makes enough food for a moderately active 40-pound dog for 1 day.

Ingredients:

Protein Choose one	Carbohydrate Choose one	Vegetables Choose 2 or 3	Fats Choose one
1 ½ c white fish	3 c oatmeal	1 c green beans	2 tsp flaxseed oil
1 c chicken breast	2 c sweet potato	1 c zucchini	2 tsp camelina oil
1 c ground turkey	2 c white potato	1 c broccoli	1 tsp salmon oil
1 c ground beef	2 c rice	¼ c beets	1 tsp Nordic
4 hard-boiled eggs	2 c quinoa	1 c carrots	Naturals®
1 ½ c cottage cheese	2 c barley	¼ c pumpkin	2 tsp Missing Link®
2 c tofu	3 c pasta	¼ c blueberries	
2 c TVP		¼ c apples	

Instructions:

1. Choose one of the liver-friendly proteins.
2. Choose one of the liver-friendly carbohydrates.
3. Choose 2 or 3 vegetables or fruit.
4. Choose 1 of the liver-friendly oils.
5. Cook all the foods separately.
6. Let the cooked food cool after preparation.
7. Combine the protein, carbs, and vegetables together in a bowl.
8. Add the calcium to the entire batch. (¼ tsp per 1 cup of meat)
9. Add the fat (oil or supplement) and mix thoroughly.
10. Spoon out a small meal-size portion from the batch (about ¼ to ½ cup for medium size dog)
11. Add your specific supplements to the individual meal, mix and serve.

Store the extra food in the fridge for up to three days or freeze it in separate containers with the right portion amount for each daily batch (for example, one and a half cups of chicken). When you need to prepare food for the day, take out the frozen food portion and let it thaw, then mix it all together with oil, calcium and supplements and serve it to your dog.

Adjusting Your Liver-Friendly Meal for Specific Needs:

If your dog needs a low-fat diet, cut the oil in half or leave it out.

If your dog needs a low-protein diet, cut the protein down to ($\frac{3}{4}$ cup or 2 eggs).

If your dog needs a low-sodium diet, don't use cottage cheese.

If your dog has HE or shunt, use cottage cheese, tofu, or TVP as the protein.

Variety-The Most Important Ingredient

One of the most important aspects of a homemade diet is variety. **Jan Allegretti, D. Vet. Hom.** says in her new book *The Fresh & Flexible™ Meal Plan*.

“the single most important ingredient in any diet...is variety, variety, variety.”

Don't stick to one recipe that you are comfortable with. Try different proteins, carbs and vegetables that are good for your dog's liver. They have different vitamins and minerals that your dog needs for their health. You don't have to balance every meal perfectly. You can use supplements like a multivitamin to ensure you are getting all the basics covered and a few key liver nutrients and balance the rest over time.

Variety doesn't mean mixing everything into one recipe. It means offering different foods in different meals.

Your goal is to give your dog a variety of fresh foods that are liver-friendly. You can change the proteins, carbs and veggies every week to see how your dog likes them. If your dog does well with them, you can change them every day for more variety.

Sample Meal or Daily Batch – The Quickie

1 piece of cooked cod (about $\frac{1}{4}$ cup, 1.5 oz or 50g)

1 scrambled egg

$\frac{1}{4}$ cup of cooked sweet potato

$\frac{1}{4}$ cup of cooked Normandy Mixed veggies (carrots, broccoli, cauliflower)

$\frac{1}{4}$ tsp of Missing Link® powder

$\frac{1}{4}$ tsp of eggshell powder

Daily multi-vitamin

The Fresh & Flexible Meal Prep:

My approach to meal prep is simple yet efficient. I start by cooking several portions of proteins, carbs and veggies, then freeze them in individual serving sizes. For example, I use frozen cod for this recipe, which conveniently comes in small 2oz pieces. I bake several small sweet potatoes and cook a bag of frozen Normandy mixed veggies.

Once the cooking is done, I move on to meal prepping. I chop each ingredient and store them as individual servings. In this particular meal, I slice the sweet potatoes into serving-sized portions, which for me is about a third of a small sweet potato, rather than chopping them into bite-sized pieces. I chop the veggies in a food processor and then portion them into quarter-cup molds.

I don't peel the sweet potatoes at this point. It's very easy to pull the skin off after they defrost and then chop them up for the meal.

When it's time for a meal, I defrost a portion each of cod, sweet potato, and veggie mix. I poach the cod fresh. I peel the skin off the sweet potato and cut it into bite-size pieces. I mix the cod, sweet potato and veggies together. Then I start scrambling an egg. When it's almost done, I add the mix of cod, sweet potato and veggies and finish scrambling it all together. Once it cools off, I mix in some Missing Link® and eggshell powder. And voila! A quick, easy, and fresh meal or daily batch - my signature "Quickie."

Now, I don't necessarily cook everything simultaneously or even on the same day. I prepare ingredients as I need them or when I run out. I switch things around, substituting chicken, turkey or beef for cod and quinoa for sweet potatoes. I'll make oatmeal fresh. I cook zucchini or green beans and mix them with other veggies or cook beets and include a little. I also use TVP, enhancing its flavor with broth from the meat I cook. Occasionally, I use dehydrated veggies that only require hot water to prepare, substituting them for cooked veggies.

This is one of the ways I cook for my dog today. Jackson is a picky eater and doesn't like to eat the same thing all the time. He also prefers fresh meals over ones that are being warmed up from the fridge.

These are just a few tips for how to make this liver-friendly meal quick and easy. Do whatever works best for you.

Nutritional Supplements:

As you already know, homemade diets for dogs with liver issues need some extra help from supplements. In this section, I will tell you which supplements to use and how much to give your dog.

For the fresh & flexible meal option, you will need these basic supplements or similar ones:

Calcium: This is important for your dog's bones and teeth. You can use:

- Eggshell powder (1 ½ teaspoons per pound of meat, or ¼ tsp per cup)
- Calcium carbonate (1 teaspoon per pound of meat, or ½ tsp per cup)
- Calcium citrate (2 teaspoons per pound of meat, or 1 tsp per cup)

Multi-vitamin: This is to make sure your dog gets all the essential vitamins and minerals.

You can choose one of the Vetri-Science™ multi-vitamins for dogs, such as Vetri-Science™ Canine Plus. If your dog weighs more than 20 lbs, you can also use a human-grade multi-vitamin-mineral supplement, but make sure it does not exceed 200% of the human RDA. If your dog weighs less than 20lbs, you can give them half a tablet. If the supplement is made from whole foods, you only need to give it every other day.

Essential fatty acids: These are good for your dog's skin, coat, and immune system.

You can use a whole food supplement like Missing Link® instead of adding oil like flaxseed oil. For omega-3's DHA & EPA you can use a high-quality fish oil supplement like Nordic Naturals Pet Omega's. Follow the label instructions for the dosage.

Liver support: These are to help your dog's liver function and heal. You can use the supplements recommended by your veterinarian or these.

- Vetri-Science™ Canine Liver instead of the Vetri-Science™ Canine Plus multi-vitamin (do not use both)

OR a combination of individual supplements that include Zinc and B-complex.

- Zinc, in the form of Zinc Picolinate or Zinc Citrate (5mg per 10lbs of body weight)
- B-Complex (dosage according to the supplement instructions)

Other supplements: You can also give your dog digestive enzymes or probiotics if they need them.

Veterinarian-Approved Liver Disease Recipes

These veterinarian-approved recipes are examples of recipes that are specifically designed for dogs with liver disease. These recipes are not just food; they are nutritionally balanced meals made by experts who understand what dogs with liver disease need to survive.

One of the key features of these recipes is they follow the guidelines for a “Complete & Balanced” model of a therapeutic diet, ensuring your dog receives the right amount of protein along with other key nutrients for liver disease. These recipes use household staples such as eggs, rice, chicken, and cottage cheese.

However, you may also notice some ingredients that might raise an eyebrow. Cod liver oil, bonemeal, canola oil, corn oil, and even human multivitamins are frequently used. This is a nod to the era in which these recipes were born - the early 2000s. Back then, human multivitamins were our best bet for supplementing our dogs’ diets, and concerns over the inflammatory impacts of excessive omega-6 were not yet on the radar.

Given what I’ve said in Chapter 3, it's clear that while these recipes may be "complete and balanced," they are somewhat outdated. Some ingredients may not be optimal based on current research and understanding. This does not negate their value, however.

These recipes serve as valuable learning tools and examples of balanced meals. They can stimulate ideas for your own homemade dog food creations and provide proof to your veterinarian that you're serious about providing balanced meals for your dog. But rather than consider them as definitive guides to follow verbatim, think of them as stepping stones on your journey towards understanding and crafting the best diet for your liver dog's specific needs.

Canine Low Protein Diet for Liver Disease

*Revised by Dr. Claudia Kirk, Diplomate of the American College of Veterinary Nutritionists,
April 18, 2005*

Ingredients:

¼ lb of ground beef (not lean chuck)
2 Cups cooked rice
1 hard-cooked egg, finely chopped
3 slices of white bread, crumbled
1 tsp powdered bone meal for feeding (if you can't find this, substitute calcium carbonate)
¼ tsp light salt
1 Centrum vitamin-mineral supplement
1 tsp corn oil
100 IU vitamin E capsule
1 gram fish oil nutritional supplement
1 tsp Metamucil

Instructions:

1. Cook rice in advance.
2. Cook beef in skillet, stirring, until lightly browned.
3. Mix cooked beef with the remaining ingredients. Store refrigerated.
4. The mix is somewhat dry; moisture and palatability can be improved by adding warm water or low-sodium chicken broth.

Nutrition:

Yield: 598 grams (1.25 pounds) and 936 kcal/batch, 750 kcal/lb

Analysis (% Dry Matter):

Protein 19%

Fat 19%

Carbohydrate 54%

Sodium 0.5%

Notes:

Feed enough to maintain normal body weight (approximately ¼ lb food per day per each 5 lb body weight).

Supplements:

SAM-e, ursodiol, and L-carnitine, as indicated by your veterinarian.

Chicken & Cottage-Cheese Diet for Liver Shunts

Recommended by the University of Tennessee's College of Veterinary Medicine

Ingredients:

2 cups of white rice,
1 cup of 2-percent-fat cottage cheese,
4 ounces of dark meat chicken,
4 tablespoons of canola oil, and
2 ounces of mixed vegetables.

Notes:

Feed the dog a diet that is easily digestible and has a low fiber content. This helps to prevent the loss of fluids from the intestines through absorption by the fiber.

Supplements:

The recipe also includes the addition of eight scoops of a canine multivitamin supplement and L-Methionine, an amino acid that has been found to have a beneficial effect on liver health in humans and animals.

Pippa's Liver Malfunctioning - TCM therapeutic diet

by Cheryl Schwartz, DVM

Traditional Chinese Medicine (TCM) is a system of medicine that uses food and herbs to treat various health problems. A therapeutic diet is a way of choosing and combining foods and herbs that suit your dog's condition and needs. This recipe is for general liver malfunctioning. This recipe gives specific sources of protein, grain/starch, and vegetables to be used to help the liver function better and balance the energy and blood.

Protein sources should be from

- hard-boiled egg and
- non-oily fish, such as cod. If meat is used,
- rabbit is useful because it has yin qualities, and speeds up the metabolism to encourage the qi to move.
- Small amounts of white meat chicken may be added for its qi tonification and qi-moving ability.

Grain/starch sources should be from

- whole wheat (such as from bread or flakes)
- millet
- brown or white rice, thoroughly cooked. If whole grains are too difficult to break down,
- white flour pasta can be used.

Vegetables should include

- grated beet
- spinach
- chard
- kale
- squash (small amounts, if no bile is being vomited)
- broccoli
- cabbage

Instructions:

1. Cook (boil, bake, or poach) your choice of protein.
2. Cook some grains, starches, or pasta in a separate pot.
3. Cook (steam, boil, or microwave) vegetables.
4. To make this TCM diet, you need to mix the foods in the following way:
For every 2 cups of food, use no more than 1/3 cup of protein, such as eggs or cod.
Use 1/4 to 1/2 cup of vegetables, such as broccoli or spinach.
Use the rest of the food as cooked grains or starches, such as rice, oats, or pasta.
Make sure the protein is only about 15-30% of the total food volume.

Supplements:

B-Complex, Bioflavonoids, Kelp powder, Digestive enzymes,
Mineral supplement from Thorne – with or without copper

Xiao Yao Wan is an ancient Chinese herbal medicine for liver Qi stagnation. Dr. Swartz says it's the classic formula for harmonizing the spleen/pancreas, stomach and liver.

Milk Thistle Seed Extract standardized to contain 80% silymarin

Diets for Dogs with Hepatic Disease by Dr Strombeck

One of the pioneers of homemade diets for dogs with specific illnesses is Dr. Donald Strombeck. He is now a professor emeritus of veterinary medicine at the University of California, Davis. In 1999, he published a book called *Home-Prepared Dog & Cat Diets - The Healthful Alternative*, which contains over 200 recipes for various health conditions, including liver disease. His recipes have been handed out by many holistic veterinarians and have helped thousands of dogs and cats recover from their illnesses.

Dr. Strombeck's recipes for dogs with Hepatic Disease are based on scientific principles and clinical experience. His recipes are:

- Low in protein but high in quality. He uses cottage cheese, tofu, and eggs as protein sources and avoids meat, fish, and cheese.
- Low in fat but high in essential fatty acids. He uses vegetable oils, such as corn or soybean oil, as fat sources and avoids animal fats, butter, and margarine.
- High in complex carbohydrates but low in simple sugars. He uses rice, pasta, oatmeal, and potatoes as carbohydrate sources and avoids corn syrup, honey, and table sugar.
- Supplemented with vitamins and minerals. Dr. Strombeck adds a multivitamin and mineral supplement, such as a human multivitamin, to the diet and adjusts the dosage according to the dog's weight and condition. He also recommends extra vitamin C, vitamin E, and zinc for dogs with liver disease and avoids vitamin A and copper, which can worsen liver damage.

Dr. Strombeck's recipes for dogs with Hepatic Disease are easy to make and can be customized according to the dog's preferences and needs. They contain the amount of cooked or prepared ingredients for the size dog listed. These are daily amounts that can be divided into two or more meals. You can find more details and recipes in his book: *Home-Prepared Dog & Cat Diets - The Healthful Alternative*.

Cottage Cheese, Tofu and Rice Diet (Moderate Sodium)

½ cup cottage cheese, 1 percent fat
2/3 cup tofu, raw firm
1 ½ cups rice, long grain, cooked
1 tablespoon chicken fat
½ teaspoon salt substitute – potassium chloride
3 bonemeal tablets (10 grain or equivalent)
1 multivitamin tablet

Provides 651 calories, 36.9 grams protein, 21.8 grams fat, .280 percent sodium

Supports caloric needs of a 20-pound dog

Two to three ounces or more of raw potato (23 kilocalories/ounce) can be added to increase bowel movement frequency.

Cottage Cheese and Rice Diet (High Sodium)

- 1 ½ cups rice, long-grain, cooked
- 1 cup cottage cheese, 1 percent fat
- 1 tablespoon chicken fat
- ¼ teaspoon salt substitute – potassium chloride
- 3 bonemeal tablets (10-grain or equivalent)
- 1 multiple vitamin tablet

Provides 598 calories, 34.5 grams protein, 17.1 grams fat, and .647 percent sodium.

Supports caloric needs of an 18-pound dog.

Two to three ounces or more of raw potato (23 kilocalories/ounce) can be used to increase bowel movement frequency.

Tofu and Rice Diet (Low sodium)

- 1 1/3 cup tofu, raw firm
- 1 ½ cups rice, long-grain, cooked
- 2 teaspoons chicken fat
- ¼ teaspoon salt substitute – potassium chloride
- 3 bonemeal tablets (10-grain or equivalent)
- 1 multiple vitamin tablet

Provides 700 calories, 43.1 grams protein, 24.1 grams fat, and .012 percent sodium.

Supports caloric needs of a 22-pound dog.

Two to three ounces or more of raw potato (23 kilocalories/ounce) can be used to increase bowel movement frequency.

Home-Prepared Cat & Dogs Diets (second edition)

Recipes for Liver Disease by Patricia Schenck

Patricia Schenck, a certified veterinary nutritionist, has updated and enhanced Dr. Strombeck's recipes using computer software to make them meet the AAFCO standards and health recommendations. The new second-edition versions of Dr. Strombeck's diets are very similar to the original ones, but they have more specific amounts of supplements to be used.

This is just one of 10 recipes. All the recipes are available on the Wiley.com website. See [resources for link](#).

Chicken & Rice Recipe

Ingredient	Quantity	Measure
Chicken, breast, without skin, cooked	5	ounce
Rice, white, long-grain, cooked	2	cup
Broccoli, chopped, cooked	2	cup
Canola oil	7	tsp
Salt substitute (potassium chloride)	1/4	tsp
Bone meal powder	2	tsp
Salt, iodized (sodium chloride)	1/8	tsp
Multivitamin & mineral tablet, kids complete	1	each
Zinc 100 mg tablet	1/2	tablet
Arginine powder, 2.5 g per tsp	1/4	tsp
Kelp, 150 mcg iodine per tablet	2	tablet

Nutrition:

Yield: 824 g; 1047 kcal as prepared, or 1.27 kcal/g

Analysis by percentage of calories:

Protein: 25.34%

Fat: 16.87 %

Carbohydrate: 47.58%

Hilary Watson's Liver Recipes from her book *Complete & Balanced*

Hilary Watson is a certified animal nutritionist with more than 30 years of experience in the field of pet nutrition. She is also the author of groundbreaking books that provide complete and balanced recipes for dogs and cats. She uses her own human-grade supplement called Hilary's Blend, which contains all the essential nutrients that dogs need, as well as chicory root extract, a natural fiber that stimulates healthy bacteria in the gut. She was the first to develop a supplement to be added to homemade dog food and the first to create an online recipe balancing tool.

Hilary Watson has created eight homemade recipes for dogs with liver disease, based on her article "Hepatic Encephalopathy in Dogs" and "Dietary Management of Canine Liver Disease," which explains how dietary intervention can help dogs with liver disease. Her newsletter, which contains all of the recipes, is listed in the [resources](#). Here are 3 of her recipes.

Low Protein Liver #3 Recipe

250 g Hard-boiled eggs
122 g Yogurt, low fat
160 g Peas from frozen
45 g Brussels sprouts
245 g Apple with skin
163 g Pears with skin
10 g Hilary's Blend
5 g Cod liver oil

Nutrition:

Yield: 88 kcal/100g
Analysis by percentage of calories:
Protein: 22%
Fat: 35%
Carbohydrates: 43%

Moderate Protein & Fat Liver #5 Recipe

126 g Catfish
75 g cheddar cheese
122 g Yogurt, low fat
160 g Peas from frozen
80 g Egg noodles
76 g Brussels sprouts
5 g Safflower oil
180 g Apple with skin
160 g Pears with skin
10 g Hilary's Blend
5 g Cod liver oil

Nutrition:

Yield: 111 kcal/100g

Analysis by percentage of calories:

Protein: 23%

Fat: 39%

Carbohydrates: 38%

High Fat, Mod Protein Liver #8 Recipe

203g Chicken Liver
85 g Cheddar cheese
123g Tofu
390 g White rice
110 g Carrots, raw
5 g Safflower oil
55 g apple with skin
15 g Hilary's Blend
5 g Cod liver oil
9 g Salmon oil

Nutrition:

Yield: 154 kcal/100g

Analysis by percentage of calories:

Protein: 26%

Fat: 44%

Carbohydrates: 30%

Sample BalanceIT™ Recipes for Liver Disease

BalanceIT.com is a web-based recipe builder that helps you formulate balanced homemade diets for healthy dogs and cats. Using a recipe builder can be the easiest way to feel comfortable with creating a recipe when starting out. You can choose the ingredients you want to use, and it will calculate the amounts and the nutrients for you. To create a balanced recipe, you will also need to add their supplement. BalanceIT.com has its own supplements that you can use, or you can use other supplements that are suitable for your dog's condition.

BalanceIT.com is a great way to start creating liver-friendly recipes for your dog. You can use it to experiment with different protein, carbohydrate, vegetable, and fat sources and see how they affect the protein level and the calorie content of the diet. You can also adjust the recipe according to your dog's weight and preferences. BalanceIT.com will give you the daily food portions and the ingredient quantities for your dog.

Here is an example of how I use BalanceIT.com to create a new recipe for a dog named Jade. I chose chicken breast, quinoa, sweet potato, zucchini, green beans, and beets as the ingredients. BalanceIT.com gave me the option to choose the protein level, and I picked the low-protein option. Then, BalanceIT.com gave me a recipe with the amounts of each ingredient and the supplements that I needed to add. It also told me the daily calorie recommendation and the food portion for Jade, who weighs 35 pounds. Now, I have a blueprint for a recipe to start with. When creating a custom diet, I go the extra step of using Pet Diet Designer software to determine the exact amounts of specific nutrients to add for liver disease, such as zinc, vitamin E, and B-complex.

You can use BalanceIT.com as an easy way to start creating your own recipe. First, select ingredients that are liver-friendly and let it determine the amounts for you. Then, to balance the recipe, you can use their supplement BalanceIt® Canine Plus or their copper-free supplement for dogs with liver disease, called BalanceIt© Canine-Cu. They even have an option to tell you what human supplements to use instead of theirs.

Some of my clients have shared recipes with me that their vets gave them. They were just basic recipes from BalanceIt.com. Nothing special. If they can use BalanceIt.com to give you a recipe, then you can do it yourself. Just pick the ingredients that are best for you and your dog, and let BalanceIt.com do the rest.

Here are some examples of BalanceIt.com recipes.

Simba's Balance-It White Fish Recipe

By: Willows Veterinary Centre & Referral Service

Simba had been diagnosed by Anna Threlfall at Davies Veterinary Specialists with liver disease (low-grade hepatitis) and a suspected food-responsive intestinal disorder. Willows formulated these balanced home-cooked diets to manage these conditions in Simba. Protein sources (white fish and turkey) are novel to Simba or known to be tolerated.

Ingredients for white fish recipe:

60 grams of cooked (on a low heat) white fish (measure cooked amount)
385 grams of boiled (without salt) skin-free sweet potato (measure cooked amount)
45 grams of boiled (without salt) carrots (measure cooked amount)
½ teaspoon of corn oil
3 ¾ teaspoons (7.5 grams) of BalanceIT Canine supplement

Simba's Balance-It Turkey and Rice Recipe

Ingredients for recipe 2:

40 grams of pan-fried (without oil) fat-free turkey mince (measure cooked amount)
235 grams of cooked (without salt) long-grain white rice (measure cooked amount)
55 grams of boiled (without salt) green beans (measure cooked amount)
1 ½ teaspoons of corn oil
3 ½ teaspoons (7.25 grams) of BalanceIT Canine supplement

Instructions

1. Add the oil to the cooked sweet potato or rice, fish or turkey and carrots or beans.
2. Add the BalanceIT supplement at the end and mix well before feeding.
3. If using refrigerated or frozen food, add the BalanceIT supplement after the re-heating process.

Notes:

The two diets have been formulated to provide identical amounts of calories, protein and fat. Please feed only one diet at a time so that you can monitor for any dietary intolerances.

The amounts specified are the total amounts Simba needs to be fed over one day. Divide this amount into two to three meals as necessary. Please use kitchen scales to accurately measure these items. You can prepare larger amounts and refrigerate (for up to 3 days) or freeze (up to 2 weeks). Do not add, remove or substitute ingredients without checking.

Monitor appetite, stools and weight on these diets.

Supplements:

- Balance-It® Canine is required to make this a balanced diet. Order at balanceit.com. (you can start the diet without the supplement initially.)
- Gomega (made by Vetplus) fish oil supplement: Give one pump of liquid once daily.
- Jarrow Pet Dophilus probiotic supplement can be continued.

Norman's Balance-It Low Protein Recipe

This is an example of what the automatic recipe builder does when asked to include: Eggs, Cottage Cheese, Quinoa, Sweet potato, Broccoli, Carrots, Cauliflower, Zucchini, Nordic Naturals Omega-3 Pet Supplement. BalanceIt added the lentils, canola oil, and Balance IT® Canine supplement to make it balanced. This is calculated for a 30lb dog.

Ingredients:

67 g	or	2 3/8	oz	Egg, whole, cooked, scrambled
141 g	or	4 7/8	oz	Cheese, cottage, low-fat, 1% milkfat
15 g	or	3 1/4	tsp	Oil, canola
1.01 g	or	1 1/10	mL	Nordic Naturals Omega-3 Pet Liquid
150 g	or	3/4	cup	Sweet potato, cooked, baked in skin, without salt (BalanceIT.com; flesh fed only)
124 g	or	5/8	cup	Lentils, mature seeds, cooked, boiled, without salt
116 g	or	5/8	cup	Quinoa, cooked
29 g	or	1/4	cup, chopped	Broccoli, cooked, boiled, drained, without salt
28 g	or	1/4	cup grated	Carrots, raw
47 g	or	3/8	cup (1" pieces)	Cauliflower, cooked, boiled, drained, without salt
79 g	or	7/16	cup, sliced	Squash, summer, zucchini, includes skin, cooked, boiled, drained, without salt
8.12 g	or	3 1/4	teaspoon	Balance IT® Canine (2.5 g/tsp)

Instructions:

1. All ingredients should be purchased and prepared according to the method of cooking listed within the ingredient name.
2. Measure or weigh and then chop large pieces.
3. Combine all ingredients and mix well.
4. If batch cooking, mix in all heatable supplements now before refrigerating/freezing.
5. The addition of Balance-It Canine supplement is not optional as this provides needed essential nutrients and prevents nutrient deficiencies.

Supplements:

- Balance-It Canine is required to make this a balanced diet. Order at balanceit.com. (you can start the diet without the supplement initially).
- Nordic Naturals Omega-3 Pet Liquid

Nutrition:

Yield: 803 kcal/batch
Analysis (% Calories):
Protein 22.2%
Fat 31%
Carbohydrate 46.8%

Max's Balance-It Recipe

Ingredients:

	Grams	Amount
Pumpkin, canned, without salt	214.4 g	7/8 of a cup
Barley, pearled, cooked (BalanceIT.com)	157.0 g	1 cup
Chickpeas (garbanzo beans, bengal gram), mature seeds, cooked, boiled, without salt	123.0 g	3/4 of a cup
Ground turkey, 85% lean, 15% fat, pan-broiled crumbles	88.6 g	3 1/8 oz
Spinach, cooked, boiled, drained, without salt	67.5 g	3/8 of a cup
Cauliflower, cooked, boiled, drained, without salt	54.2 g	1/2 of a cup
Broccoli, cooked, boiled, drained, without salt	39.0 g	1/4 of a cup
Carrots, raw	30.5 g	1/4 of a cup
Nordic Naturals Omega-3 Pet Liquid	8.6 g	1 7/8 teaspoon

You MUST also add the following supplement(s) to prevent essential nutrient deficiencies:

5 1/4 teaspoons (10.50 grams) of **Balance IT® Canine** once a day

1 bottle of Balance IT® Canine will last about 57 days

Instructions:

1. All ingredients should be purchased and prepared according to the method of cooking listed within the ingredient name.
2. Measure or weigh and then chop large pieces.
3. Combine all ingredients and mix well.
4. Add Balance-It Supplement to the entire batch before refrigerating or freezing.

Supplements:

- Balance-It Canine is required to make this a balanced diet. Order at balanceit.com. (you can start the diet without the supplement initially).

Nutrition:

Per Above Recipe: 827 kcal/batch;

Analysis (% Calories):

Protein: 19%

Fat: 31%

Carbohydrates: 50%

Balanced Long-Term Liver-Friendly Recipes

Balancing your dog's diet with the right nutrients is important long-term. The good news is that it's not too difficult. If your dog has several limitations due to food sensitivities or you don't want to provide the variety needed to fill all the nutritional requirements to balance the diet over time. Then, using one of these balanced recipes is a good place to start. Finding the right balance can be a bit tricky, which is why it's recommended to start with the recipes in the book or work with a nutritionist. It's important to avoid guessing or using the same general recipe day in and day out.

The following recipes have been carefully analyzed for optimal nutritional balance for a dog with liver disease, using a software program called Pet Diet Designer.

I'll start by introducing balanced versions of three core diets: the Basic Liver Cleansing Diet, Dr. Dodds Liver Cleansing Diet and the Low Protein Diet.

Balanced - Basic Liver Cleansing Diet

This liver cleansing diet has been formulated based on research and various examples and balanced using pet diet designer software.

Preparation Instructions

1. Wash the potatoes well
2. Bake potatoes in the oven or microwave until soft
3. Wash the zucchini and cut with carrots and steam or boil until soft
4. Hard boil the eggs
5. Poach cod fillet in a frying pan with water until fish is white (or bake in the oven)
6. Mash potatoes and mix with powders (garlic powder and calcium)
7. Add cod, eggs, and vegetables and mix until well blended.

Mix one serving with Missing Link® and digestive aid according to the instructions on the supplement labels. Give Vetri-Science® Canine Plus multivitamin once a day. Give Zinc supplement as directed and serve.

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

Ingredients

Amount	Unit	Ingredient	Gram
10	oz	Fish, cod, Atlantic, cooked, dry heat	283.33
1.5	cup	Sweet potato, cooked, baked in skin, without salt	300
1.5	cup	Potatoes, white, flesh and skin, baked	487.5
1.5	cup, sliced	Squash, summer, zucchini, includes skin, cooked, boiled, drained, without salt	270
1.5	cup slices	Carrots, cooked, boiled, drained, without salt	234
2	large	Egg, whole, cooked, hard-boiled	100
0.25	tsp	Spices, garlic powder	0.78
1	tbsp	Missing Link - Hip & Joint Formula*	16
1	tsp	NOW, Calcium Carbonate Pure Powder	3.4
2	capsules	Vetri-Science Canine Plus Bite-Sized Chews*	7
15	mg	Zinc – picolinate	0.02

*** Note:** Vetri-Science Canine Plus Bite-Sized Chews are a multivitamin supplement that should be given to your dog daily but not added to the food. Missing Link - Hip & Joint Formula is a powder supplement that should be added to each meal but not to the entire batch. Please follow the instructions on the supplement labels for the correct dosage for your dog.

Yield: *About 7 cups. (1367 calories, 30% protein, 12% fat, 51% carb, 5% fiber), 183 kcal/cup*

Feeding Guide

Body Weight		Energy Intake	Amount to Feed		
lbs	kg	kcal/day	grams/day	oz/day	cups/day
1	0.45	50	62	2.2	0.27
5	2.3	166	206	7.3	0.91
10	4.5	280	347	12.2	1.53
15	6.8	379	470	16.6	2.07
20	9.1	470	583	20.6	2.57
30	13.6	638	790	27.9	3.48
50	22.7	935	1159	40.9	5.11
75	34.0	1268	1571	55.4	6.92
100	45.4	1573	1949	68.7	8.59

Substitutions

This recipe is meant to be followed as-is with no substitutions. Any change or substitution of ingredients or supplements will change the nutrient profile of this recipe.

Balanced – Dr. Dodd’s Liver Cleansing Diet

This liver cleansing diet has been formulated by W. Jean Dodd’s, D.V.M. and balanced using pet diet designer software.

Preparation Instructions

1. Wash the potatoes well
2. Bake potatoes in oven or microwave until soft
3. Wash the zucchini and cut up with green beans and steam or boil until soft
4. Drain zucchini and green beans
7. Poach cod fillet in a frying pan with water until fish is white (or bake in the oven)
8. Combine and mix with all additional ingredients (eggshell powder, hemp oil) until well blended.

Mix one serving with digestive aid and give supplements and medication as directed and serve.

Give B-Complex, Vitamin E and Zinc supplements as directed and serve.

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

Ingredients

Amount	Unit	Ingredient	Gram
2	cup	Fish, cod, Atlantic, cooked, dry heat	280
1.5	cup	Sweet potato, cooked, baked in skin, without salt	300
1.5	cup	Potatoes, white, flesh and skin, baked	487.5
1.5	cup, sliced	Squash, summer, zucchini, includes skin, cooked, boiled, drained, without salt	270
1.5	cup	Beans, snap, green, cooked, boiled, drained, without salt	187.5
0.75	teaspoon	Dried Egg Shell Powder - Homemade	1.5
0.25	capsules	B-Complex 50	0.12
1	capsules	Solgar Vitamin E 100 IU	5
15	mg	Zinc – picolinate	0.02
2	tsp	Nutiva Hemp Oil, Cold Pressed	10

*** Note:** Vitamin E supplement should be given to your dog daily but not added to the food. Please follow the instructions on the supplement labels for the correct dosage for your dog.

Yield: About 8 cups. (1211 calories, 29% protein, 11% fat, 54% carb, 5% fiber) 178 kcal/cup

Feeding Guide

Body Weight		Energy Intake	Amount to Feed		
lbs	kg	kcal/day	grams/day	oz/day	cups/day
1	0.4536	50	63	2.2	0.28
5	2.3	166	212	7.5	0.93
10	4.5	280	356	12.6	1.57
15	6.8	379	482	17.0	2.13
20	9.1	470	599	21.1	2.64
30	13.6	638	811	28.6	3.58
50	22.7	935	1190	42.0	5.25
75	34.0	1268	1613	56.9	7.11
100	45.4	1573	2001	70.6	8.82

Substitutions

This recipe is meant to be followed as-is with no substitutions. Any change or substitution of ingredients or supplements will change the nutrient profile of this recipe.

Balanced – 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). This diet is balanced using pet diet designer software.

Preparation Instructions

1. Cook rice as directed.
2. Bake or microwave potatoes with skins and cut them into 1” pieces.
3. Wash and cut up carrots and zucchini. Steam or boil until very tender.
4. Drain water from carrots and zucchini.
5. Hard boil eggs
6. Combine and mix with all additional ingredients (cottage cheese, garlic powder, calcium powder) until well blended.

Mix one serving with the recommended amount of Nordic Naturals Omega-3 supplement and digestive aid and give supplements and medication as directed and serve.

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

Ingredients

Amount	Unit	Ingredient	Gram
1	cup (not packed)	Cheese, cottage, low-sodium, low-fat, 2% milkfat	226
2	large	Egg, whole, cooked, hard-boiled	100
1	cup	Rice, brown, long-grain, cooked	195
0.5	cup	Potatoes, white, flesh and skin, baked	162.5
1	cup, sliced	Squash, summer, zucchini, includes skin, cooked, boiled, drained, without salt	180
1	cup slices	Carrots, cooked, boiled, drained, without salt	156
0.25	tsp	Spices, garlic powder	0.78
1	capsules	Vetri Liver Canine Bite-Sized Chews - 1 per 30 lb	3
0.75	tsp	Animal Essentials Seaweed Calcium	2.25
1	tsp	Nordic Naturals Omega-3 Pet	5

*** Note:** Vetri-Science Liver Bite-Sized Chews is a supplement that should be given to your dog daily but not added to the food. Nordic Naturals Omega-3 supplement should be added to individual meals. Please follow the instructions on the supplement labels for the correct dosage for your dog.

Yield: *About 5 cups. (838 calories, 24% protein, 25% fat, 46% carb, 3% fiber) 184 kcal/cup*

Feeding Guide

Body Weight		Energy Intake	Amount to Feed		
lbs	kg	kcal/day	grams/day	oz/day	cups/day
1	0.4536	50	61	2.2	0.27
5	2.3	166	204	7.2	0.90
10	4.5	280	344	12.2	1.52
15	6.8	379	466	16.5	2.06
20	9.1	470	578	20.5	2.56
30	13.6	638	783	27.7	3.47
50	22.7	935	1149	40.7	5.08
75	34.0	1268	1557	55.1	6.89
100	45.4	1573	1932	68.4	8.55

Substitutions

This recipe is meant to be followed as-is with no substitutions. Any change or substitution of ingredients or supplements will change the nutrient profile of this recipe.

Notes about Amounts and Weights

Until you get used to the amounts of each ingredient, I suggest you measure them with a food scale (in grams). You can buy one from a grocery store or a big discount store for a low price.

The recipes show the weights of the cooked ingredients (unless they say otherwise) and how much of each food you need in common amounts, like ounces and grams.

You should weigh the ingredients, not measure them by volume. For example, shredding two cups of carrots will weigh about eight ounces or one cup. Use a scale in grams to be more accurate.

The final weights of the cooked ingredients may change depending on how much water they have and how long you cook them. But weighing them is still better than measuring them by volume.

Notes about Zinc Supplements

Zinc is good for your dog's liver, as it stops too much copper from getting into their body. Most homemade recipes do not have enough zinc because the foods that have zinc also have copper, which is bad for dogs with liver disease. You need to add a zinc supplement to your dog's diet. Or a liver-support supplement that has zinc in it, like Vetri-Science™ Canine Liver.

The best forms of zinc for your dog are zinc orotate and zinc picolinate, as they are easy for your dog to absorb and do not cause stomach problems. You can buy these forms of zinc online or use human zinc supplements that have small doses (10-25 mg). Give your dog 25 mg of zinc per 50 pounds of body weight. Don't worry about the exact amount, zinc toxicity is rare and occurs at doses above 50 mg per pound of body weight. Give zinc between meals, not with food, preferably before bedtime.

Original Recipes

This section contains the 'original recipes'. These are the same recipes featured in the first three editions of this book. They've helped me and many others manage our dogs' liver disease. Even though they may not be as perfectly balanced as the new recipes, they continue to be effective in healing and supporting dogs' liver health.

These original recipes prove that simple, homemade meals can make a big difference. They're the exact recipes that helped my dog Norman get better. They feature the famous Sunny's Miracle Diet that gave me hope when I started looking for ways to save Norman in the beginning. You'll see Dr. Dodd's Liver Cleansing recipe, which has helped countless dogs with liver failure. There's also a healthy pasta stew that was Norman's main food for quite a while and a few quick, fresh meals for when you're out of time and have no food ready in the fridge.

These recipes show just how beneficial simple, fresh food can be when it's combined with a few extras like digestive enzymes, calcium, and a couple of supplements. It's not hard or scary - it's actually quite easy. I didn't know anything about cooking homemade dog food when I started. I just had Sunny's Miracle Diet and learned as I went along.

These recipes worked wonders; they were gentle on Norman's stomach without causing any GI issues. Remarkably, he never experienced hepatic encephalopathy (HE), ascites, or copper retention while eating them. In fact, after I began feeding him homemade food, his liver problems ceased altogether, and his liver enzymes went back to and stayed normal. This food even came out perfectly, resulting in perfect poop. We'll talk more about 'perfect poop' in upcoming chapters. But for now, I want to inspire you. You can do this! You too can create nutritious, healing meals for your dog right in your own kitchen.

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**
- ¼ 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 ¼ cup of non-fat cottage cheese with the meal.

Reheat:

Put the serving in a 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 (¼ cup at a time) of regular oatmeal until all water is absorbed.
6. Put one lukewarm serving in a food bowl.
7. Add ½ 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 – ¾ to 1¾; medium – 1¾ to 2½+; large - 2½ to 3¼+. (Feed twice a day)*

Basic Liver Cleansing Diet

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

- 1½ Cups of new white potatoes
- 1½ Cups of sweet potatoes
- 1½ Cups of zucchini
- 1½ Cups of carrots
- 2 Large Eggs
- 10oz Pound of cod fillet
- ¼ Teaspoon garlic powder

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 carrots and steam or cook until very tender.
4. Hard boil the eggs
5. Poach the cod fillet in a frying pan with water until the fish is white.
6. Combine and mix until well blended.
7. 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: 8 cups of food. (1305 calories, 32% protein, 11% fat, 52% carb, 4% fiber)

Serving suggestions (in cups): small – ¾ to 1¾; medium – 1¾ to 2½+; large - 2½ to 3¼+.
(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

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

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 1/2 cup of chopped carrots as directed. Combine all vegetables in a container.

Enticers:

Add 4 tablespoons of chicken or beef broth.

Store the unused meal in the refrigerator

Yield: 1 meal 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 3-4 times a day)

Reheat:

Place serving of macaroni and vegetables in a 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 ½ 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 ½ 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 – ½ to ¾; medium – 1 to 1½+; large 1½ to 2+. (Feed 3-4 times a day.)*

***Ratio of vegetable pasta to chicken:** 2:1*

Example of 1 serving for a medium-sized 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 cups of rice instead of pasta.

Reheat:

Put the serving in a microwave-safe bowl and warm for 30 seconds or just long enough to reach room temperature.

1. 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.
2. Once the fat is cooked off the chicken, add 1½ tablespoons 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. In a large stock pot over medium-high heat, bring 1 gallon of water, pasta and vegetables to boil.
5. Add 1½ 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 – ½ to ¾; medium – 1 to 1½+; large - 1½ to 2+. (Feed 3-4 times a day.)*

Ratio of vegetable pasta to chicken: 2:1
Example of 1 serving for a medium-sized dog: ½ cup of vegetable pasta and ¼ 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.

- 1½ Cups of new white potatoes
- 1½ Cups of sweet potatoes
- 1½ Cups of zucchini
- 1½ 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 – ¾ to 1¾; medium – 1¾ to 2½+; large - 2½ to 3¼+.
(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**
- ½ Cups of potatoes**
- 1 Cups of zucchini**
- 1 Cups of carrots**
- 2 Cup of cottage cheese**
- ¼ Teaspoon garlic powder**
- 1 Tablespoon extra-virgin olive oil**

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

Substitutions:

Substitute low-fat plain yogurt, ricotta cheese or eggs for the cottage cheese. Substitute macaroni for potatoes or rice.

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

Serving suggestions (in cups): small – ¾ to 1¾; medium – 1¾ to 2½+; large - 2½ to 3¼+. (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**
- ½ Cup of cooked potatoes**
- ½ Tablespoon extra-virgin olive oil**

Substitutes:

You can substitute ½ 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 ½ cup potatoes in a 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 a medium-sized dog.

Serving suggestions (in cups): small – ¾ to 1¾; medium – 1¾ to 2½+; large - 2½ to 3¼+.
(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 a food bowl. Allow to cool.
5. Then combine digestive aid with 1 serving and give medication as directed before serving

Yield: 1 meal for a medium-sized 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)

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**
- 1/2 Cup of cooked rice**
- 1 Medium size potato**
- 1/2 Carrot**
- 1/4 Cup green beans**
- 1/4 Teaspoon garlic**
- 1/2 Tablespoon extra-virgin olive oil**

- 1 Cook rice according to directions.
2. Boil ground turkey in a saucepan.
3. Cut the potato, carrot and green beans in small pieces put in a saucepan and boil until Tender.
4. Drain and mix with olive oil and garlic Allow to cool.
5. Then combine digestive aid with 1 serving and give medication as directed before serving

Yield: 2-4 meals for a medium-sized 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)

How I Fed Norman with Three Essential Components

My approach to creating homemade dog food in the beginning was largely influenced by a simple healthy, homemade dog food model that I tailored to specifically cater to dogs with liver disease. My goal was to deliver a balanced, straightforward diet for Norman, which consisted of three primary components: protein, carbohydrates, and vegetables. Each meal was formulated with a ratio of 1/3 protein, 1/3 carbohydrates, and 1/3 vegetables. For proteins, I specifically chose liver-friendly options such as eggs, chicken, and dairy. I incorporated simple carbohydrates like pasta and potatoes or grains and included vegetables for fiber and vitamins. To ensure digestibility and comprehensive nutrition long-term, I supplemented with digestive enzymes, calcium in the form of a Healthy Powder, Missing Link® and the only dog multi-vitamin at the time, by Vetri-Science™.

This homemade feeding strategy proved to be both manageable and effective and in my opinion, offered superior nourishment compared to commercial diets for dogs with liver disease.

Conclusion

This chapter is like a cookbook for your liver dog. I've given you a comprehensive collection of recipes to choose from. There are recipes that vets designed and give their thumbs up to, examples from a recipe builder called BalanceIt™, and even a new easy-to-make meal option

that's flexible for your schedule. Plus, I've updated and improved some of the original recipes to make sure they're as balanced as can be.

These recipes aren't just yummy for your dog, they're also carefully made to help heal their liver. They're versatile, which means you can pick and choose based on what your dog likes and what they need for their health. I've even kept the original recipes from earlier editions that have stood the test of time and proven their worth over the last two decades. They've helped thousands of dogs live normal lives despite their liver problems.

The feeding philosophy behind all these recipes is a well-structured diet. That means they're designed to give your dog the optimal level of protein, carbs, and veggies, along with the key nutrients for their liver.

By following this philosophy, you can provide your dog with the best nutrition for their health and healing. You can also expect to see improvements in your dog's liver enzyme levels, reduced symptoms, and enhanced quality of life.

But remember, these recipes are just a starting point. I encourage you to try them out and see the difference they can make for your dog. Feel free to tweak them to fit your dog's tastes and needs.

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 that 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 anti-hyperglycemic 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 [Planet Paws](#) - 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: www.hopeforhealing.com/milk-thistle-dosage-calculator/

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-sized dogs (30 pounds) unless otherwise noted. Ask your veterinarian about the right dosage for your dog.

Supplement	Benefits and Comments	Suggested Dosage	Safety Issues
<i>Vital</i>			
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.
<i>Valuable</i>			
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.
<i>Useful</i>			
Vitamin C	Liver Disease may decrease the amount of Vitamin C in the system. Unless Copper Retention is an issue.	200 mg 1x/day	Long-term use could cause kidney stones. High doses may cause diarrhea.

Supplement	Benefits and Comments	Suggested Dosage	Safety Issues
L-Arginine	Helps reduce ammonia blood toxicity, produced in the digestion of protein. It can build up when the liver isn't properly functioning.	500mg 1x/day on an empty stomach	None.
Choline (or lecithin)	Helps liver and gallbladder functioning and regulation. A powerful fat emulsifier. Especially recommended for pets with fatty liver disease.	1,200 ppm with meal	Rare side effects – anemia.
Garlic (allium)	Detoxifies liver, bloodstream.	1 raw clove per day or 10 mg of allium daily with meal.	Too much is toxic. Not for pets with anemia or if surgery is scheduled. Stop use within a minimum of 1 week before and after surgery. May cause excessive intestinal gas.
Turmeric	A powerful antioxidant, has protective effects on the liver, like Silymarin, and beneficial effects on the gastrointestinal tract including decreased gas formation and spasm.	1 tsp/day	Do not use in pets with bile duct obstruction, gallbladder stones, or gastrointestinal upset.
Selenium	Good detoxifier and natural antioxidant that works with Vitamin E.	0.11 mg/kg of food	Safe at recommended doses.
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.
Calcium Carbonate	To balance the protein Calcium: Phosphorus levels. Add to diet with meat protein.	900mg per pound of food	None
Di calcium Phosphate	To regulate the intake of Calcium. Eggshell powder is a good source.	Consult your Vet	

Supplement	Benefits and Comments	Suggested Dosage	Safety Issues
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 Encephalopathy or HE	Consult your Vet, should be given with meal with water	Side effects – stomach cramping, diarrhea
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

Your dog needs a high-quality, complete multi-vitamin and mineral supplement to get all the nutrients they need. Canine Plus by Vetri-Science™ is a good example of such a supplement.

Listen to your veterinarian's advice when you pick a vitamin-mineral supplement for your dog. Not all dog vitamins are the same quality, just like human vitamins. You want the best product with all the vitamins, antioxidants, and minerals to help your dog recover their health. You are not giving your dog a multi-vitamin to keep them healthy; you are giving it to them to make them healthy. **Don't skip this important step. This is NOT Optional!**

If you don't give your dog a good multi-vitamin, your homemade dog food may lack some vital nutrients and cause more health problems.

Dietary Supplement

The Missing Link® is the supplement I used in Norman's diet to give him the right balance of omega-3 and omega-6 fatty acids, along with natural fiber, flaxseed lignans, phytonutrients, calcium, phosphorous and more. It is one of the original whole-food dietary supplements for dogs. Whole foods are easier for the liver to process than synthetic supplements. There are many other whole food supplements to choose from now.

Digestive Enzymes

Digestive enzymes are required for a variety of functions. Enzymes aid in food digestion and absorption and maximize the utilization of nutrients found in natural home-prepared diets. Prozyme™ and Shake-N-Zyme™ 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

Your dog's diet needs to have the right balance of calcium and phosphorus. These are minerals that work together for your dog's bones, teeth, and nerves. Most animal protein

foods are high in phosphorus but not enough calcium. You need to add some extra calcium to balance it out. You can use calcium carbonate or eggshell powder for this.

Some supplements, like multi-vitamins, Healthy Powder, and Missing Link®, also have calcium and phosphorus, but they may not be enough for your dog's protein intake. You should follow the recipe that tells you how much and what kind of calcium to add. Different calcium sources have different amounts of calcium in them, so they are not interchangeable.

Amount of Calcium and Phosphorus Per Teaspoon:

- Calcium Carbonate: 1200mg Calcium, 0mg Phosphorus
- Calcium Citrate: 400mg Calcium, 0mg Phosphorus
- Bone Meal: 800mg Calcium, 300mg Phosphorus
- Di Calcium Phosphate: 805mg Calcium, 645mg Phosphorus
- Eggshell Powder: 1800mg Calcium, negligible phosphorus

Things to Avoid for Your Dog's Liver Health

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, or birch sugar (a sugar substitute found in many “sugar-free” foods like peanut butter)
- Chocolate
- Fatty foods
- Lunch meat
- 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, and sweetbreads; seafood including oysters, shrimp, clams, mussels, lobster, scallops, mackerel, herring, salmon, sardines; any product that lists yeast (e.g. brewers yeast, nutritional yeast)

- If your dog has ascites, minimize or avoid foods high in sodium: eggs, sweet potatoes, regular cottage cheese.

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, or 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 potty. Notice the amount, color, consistency, odor (if unusual) and frequency of 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 include 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 has 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, diet changes, excess grass or green veggies	Small bowel, biliary or liver issues
Black, tar-looking, dark blood	Bleeding of Upper GI tract (side effect of charcoal)	Stomach, small bowel
Red blood, clots	Bleeding of Lower GI tract	Colon, anus
Pasty, light	Bile Insufficiency	Liver, pancreas
Bulky, gray, containing undigested food, like rice or carrots.	Insufficient digestion/absorption	Small bowel, liver, pancreas
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 much fat in the diet	Small bowel, pancreas
Shiny or jellylike	Contains mucus	Colon or infection
Odor		
Smelling like food or sour milk	Rapid transit through bowel and insufficient digestion/absorption (likely due to overfeeding)	Small bowel, pancreas
Foul-smelling	Insufficient digestion, suggests fermentation of stool	Small bowel, pancreas
Amount		
3-4 small stools within a short time, with straining	Inflammation of the Colon (Colitis)	Colon
3-4 bulky stools within 24 hours	Insufficient digestion/absorption	Small bowel, pancreas
Changes in the Dog		
Weight loss	Insufficient digestion/absorption	Small bowel, pancreas
Normal weight and appetite	Large bowel condition	Colon
Vomiting	Enteritis, Gastritis, Pancreatitis	Small bowel, stomach, colon (in rare cases)

(Adapted from Dog Owner's Home Veterinary Handbook)

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.

Dog Vomit Color Chart

Color	Most Common Cause	What To Do (Always tell the 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 with magenta tinge	Bleeding ulcer	Seek immediate attention

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 produce 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, Behavioral 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 ([listed in recipes](#)) 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. ([See Supplements for cognitive support.](#))

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 Tums™ 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. 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 drunk 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 takes 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 soy or milk-based protein. Look at recipes that are marked as "Low Protein." Also ask your vet about giving 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.

- 1) 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

Pain is a common problem for dogs, especially as they get older or suffer from certain diseases. Pain can affect your dog's quality of life, mood, and behavior. It is important to recognize the signs of pain in your dog and seek veterinary help if needed.

Some of the behavioral signs that your dog may be in pain are:

- **Reluctance to go for walks or play:** Your dog may not show interest in their usual activities or may seem depressed or withdrawn. Your dog may also hide or sleep more than usual. This can indicate that your dog is feeling tired, sore, or unhappy.
- **Difficulty getting up or moving:** Your dog may have trouble getting up from lying down or sitting. Your dog may also move slowly and deliberately or avoid stairs or jumps. This can indicate that your dog has a problem with their bones, joints, muscles, or nerves.
- **Tension or aggression when touched:** Your dog may look tense, stiff, or uncomfortable when you touch them. Your dog may also growl, snarl, or snap to warn you away. This can indicate that your dog is feeling pain, fear, or stress in the area you are touching.
- **Avoidance of contact or interaction:** Your dog may move away from you when you sit by them or try to interact. Your dog may also ignore your calls, commands, or gestures. This can indicate that your dog is feeling irritable, anxious, or defensive due to pain.

Some of the physical signs that your dog may be in pain are:

- **Loss of appetite:** Your dog may not eat as much as usual or refuse food altogether. This can indicate that your dog is feeling nauseous, has a sore mouth, or has abdominal pain.
- **Obsessive grooming:** Your dog may lick or scratch a specific area of their body excessively. This can indicate that your dog is trying to soothe an injury, an infection, or an inflammation.
- **Lameness:** Your dog may limp, walk stiffly, or have difficulty getting up or lying down. This can indicate that your dog has a problem with their bones, joints, muscles, or nerves.
- **Shivering, shaking, or trembling:** Your dog may shiver, shake, or tremble without being cold. This can indicate that your dog is feeling anxious, fearful, or stressed. It can also indicate that your dog has a fever, an infection, or a neurological disorder.
- **Pained noises:** Your dog may whimper, whine, yelp, groan, or cry when they move, breathe, or are touched. This can indicate that your dog is experiencing acute or chronic pain.
- **Panting:** Your dog may pant excessively or breathe rapidly without being hot or exercising. This can indicate that your dog is feeling stressed, anxious, or uncomfortable. It can also indicate that your dog has a respiratory problem, a heart problem, or a metabolic disorder.

- **Lethargy:** Your dog may sleep more than usual, be less active and enthusiastic, or have a delayed response to stimuli. This can indicate that your dog is feeling tired, depressed, or unwell. It can also indicate that your dog has an infection, anemia, or a hormonal imbalance.
- **Antisocial behavior:** Your dog may avoid playing with other dogs, show a grumpy temperament, or become aggressive. This can indicate that your dog is feeling irritable, fearful, or defensive. It can also indicate that your dog has a behavioral problem, a cognitive problem, or a mental disorder.
- **Weird posture or gait:** Your dog may hold their ears flat, lower their posture, or shake their head. Your dog may also walk with a limp or drag their feet. Your dog may favor one side when walking or standing. This can indicate that your dog has a problem with their ears, eyes, spine, or limbs.
- **Coat changes or muscle wastage:** Your dog may have changes in their coat, such as dullness, dryness, or shedding. Your dog may also have muscle wastage, which means losing muscle mass or strength. This can indicate that your dog has a chronic or systemic problem that causes pain, inflammation, or weakness.

Some of the common causes of pain in your dog are:

- **Injury:** Your dog may get hurt by accident, by another animal, or by a human. Injuries can cause wounds, bruises, sprains, fractures, or internal damage.
- **Pancreatitis:** Your dog may develop inflammation of the pancreas. Pancreatitis can cause abdominal pain, vomiting, diarrhea, fever, or shock.
- **Bone cancer:** Your dog may develop cancer in their bones, which can cause pain, swelling, lameness, or fractures. Bone cancer can also spread to other organs and cause more problems.
- **Arthritis:** Your dog may develop inflammation of the joints, which can cause pain, stiffness, swelling, or reduced mobility. Arthritis can affect any joint, but it is more common in the hips, elbows, knees, or spine.
- **Periodontal disease:** Your dog may develop infection and inflammation of the gums and teeth, which can cause pain, bleeding, bad breath, or tooth loss. Periodontal disease can also affect the heart, kidneys, as well as the liver.
- **Slipped disc:** Your dog may develop a problem with the discs that cushion the vertebrae in the spine, which can cause pain, weakness, paralysis, or loss of bladder or bowel control. Slipped disc can occur due to trauma, aging, or genetic factors.
- **Ear infection:** Your dog may develop infection and inflammation of the ear canal, which can cause pain, itching, discharge, or odor. Ear infection can also affect the balance, hearing, or behavior of your dog.
- **Cystitis:** Your dog may develop inflammation of the bladder, which can cause pain, difficulty urinating, blood in the urine, or frequent urination. Cystitis can be caused by infection, stones, tumors, or stress.

If you notice any of these signs or causes of pain in your dog, you should consult your veterinarian as soon as possible. Your veterinarian can diagnose the problem, prescribe the appropriate treatment, and advise you on how to manage your dog's pain safely. You should also provide your dog with a comfortable and supportive environment, plenty of water and nutritious food, and gentle and loving care. By doing so, you can help your dog cope with pain and improve their well-being.

Pain Management for Dogs with Liver Disease: Conventional and Natural Options

Managing pain for a dog with liver disease can be challenging, as some pain medications can be harmful to the liver. However, there are some options that can help your dog feel more comfortable and improve their quality of life.

Conventional Options for Pain Management in Dogs: Benefits and Risks

- **Nonsteroidal anti-inflammatory drugs (NSAIDs)** like Rimadyl™, Metacam™, or Previcox™ and their generic forms. These drugs can relieve pain and inflammation, but they can also cause gastrointestinal ulcers, bleeding, kidney damage, and liver toxicity.
- **Opioids** like Morphine, Tramadol, or Fentanyl. These drugs can provide strong pain relief, but they can also cause sedation, respiratory depression, constipation, and liver damage.
- **Steroids:** These are drugs that can reduce inflammation and pain in the joints, but they can also cause infection, bleeding, or cartilage damage. Steroids can also affect liver function and cause liver damage, especially in dogs with chronic liver disease or failure.
- **Hyaluronic acid:** This is a natural substance that is found in the synovial fluid of the joints, which helps cushion and lubricate the cartilage. Hyaluronic acid injections can help restore the viscosity and elasticity of the synovial fluid and reduce pain and inflammation in the joints. Hyaluronic acid injections are generally safe and well tolerated, but they may not work for everyone.
- **Adequan™:** This is a brand name for a drug that is used to treat arthritis in dogs. It is an injectable form of polysulfated glycosaminoglycan (PSGAG), which is a natural substance that is found in the cartilage and synovial fluid of the joints. Adequan works by reducing inflammation, stimulating the production of joint fluid, and protecting the cartilage from further damage. Adequan™ is safe for dogs with liver disease and is generally well tolerated.
- **Monoclonal antibody:** This is a type of protein that can bind to and inhibit the activity of another protein that causes pain. The first monoclonal antibody approved for dogs with osteoarthritis is Librela™, which targets a protein called nerve growth factor (NGF). Injections can help control pain associated with osteoarthritis in dogs when at least two doses are given 28 days apart. Librela™ injections do not seem to have a direct effect on liver function or health.

Natural and Holistic Approaches to Pain Relief in Dogs: Advantages and Limitations

- **Acupuncture:** This is a technique that involves inserting thin needles into specific points on the body to stimulate the nervous system and release natural painkillers. Acupuncture can help reduce pain, inflammation, and stress and improve blood flow and immune function.

- **Massage:** This is a technique that involves applying pressure and movement to the muscles and soft tissues of the body to improve blood circulation and reduce tension and stress. Massage can help relax the muscles, ease the pain, and enhance the mood of your dog.
- **Herbal remedies:** These are natural substances that are derived from plants that can help reduce pain, inflammation, and stress.
- **Homeopathic remedies:** These are natural substances that are diluted and prepared according to the principles of homeopathy. Some examples of homeopathic remedies for pain are Arnica, Hypericum, Ruta, and Bryonia.
- **Joint supplements:** These are nutritional substances that are added to the diet to support joint health and help relieve pain in dogs with arthritis by improving the function and structure of the joints and by reducing the production and activity of inflammatory mediators that cause pain. Some supplements may or may not be safe for dogs with liver disease, depending on the type and severity of the condition and the underlying cause. Those that contain vitamin A, copper, or iron can cause liver toxicity or overload if given in high doses or for a long time.
- **CBD:** This is a natural cannabinoid extract that can help reduce pain, inflammation, and stress and improve blood flow. CBD may or may not be safe for dogs with liver disease, depending on the type and severity. Some studies have shown that CBD can affect liver enzymes and can also interact with some medications. Dogs with liver shunts should not use CBD. Use CBD with caution, start with a low dose and monitor your dog's response. Look for high-quality CBD products that are tested for purity and potency.

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 pill-hiding 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 broth squeezed into a ball
- Small teaspoon of pumpkin
- Cheese spread

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 [Whitehouse Veterinary Hospital](#), suggests, "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 Essential Oil Based Flea and Tick Control Products ON 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 in the environment, 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 only for healthy animals in high-risk environments. 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®, Spectra 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 the 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) ALL areas where your pet lives at the same time – 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

- PetGuard™ 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.
- Wondercide™ is an essential oil-based product that can be safely used in the yard 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 Pet™ 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 Naturals™ Neem "Protect" Spray. Avoid using natural flea products that contain essential oils, such as Wondercide™, Vet's+Best™, Richard's Organics™, or Kin+Kind™. Although most essential oils are safe for healthy dogs, they can be toxic to dogs with liver disease, as they can overload the liver and cause damage.

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 IGRs are **hydroprene, methoprene and pyridine**. IGRs 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

Heartworm prevention is not recommended for dogs with liver disease, unless you have no other choice. Heartworm prevention can harm your dog's liver and cause a relapse of the disease. You should only use it if your dog's liver enzyme blood levels are normal and you live in a high-risk area for heartworms. Even then, you should use it less often than usual. Give it to your dog every six weeks instead of every month, and only during the mosquito season. Also, keep an eye on your dog for any signs of a relapse, such as coughing, fatigue, or weight loss. To protect your dog's liver, give your dog milk thistle before and after the treatment, or better yet, give it regularly.

Some heartworm preventatives also treat fleas and ticks, but you should avoid them as well. They can be very dangerous for your dog's liver and health. Do not use Trifexis™, a medication that combines heartworm, flea, and tick prevention. It can cause liver toxicity, 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 Tums™ (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 a 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 a Herbal Remedy – *Garlic (Allium sativum)*. For strictly stomach problems, give ½ 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 ½ cup of cold water for 8 hours and then strain. For intestinal problems, give 1 garlic soft gel 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 the list of [food sensitivity/intolerance tests](#) 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 | • Fruits |
| • Wheat | • Tomatoes |
| • Rice | • Carrots |
| • Milk | • Yeast |
| • Cheese | • Various spices, additives, and dyes |
| • Eggs | • Flavorings in chewable vitamins |
| • Nuts | • 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 knowing that I didn’t give up hope and I know that I didn’t give up hope and 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. He was happy and healthy, thanks to the natural treatments I gave him. However, he also had severe arthritis that got worse over time. Eventually, I had to make a very difficult decision about his quality of life.

As the months passed by, his arthritis became more severe and debilitating. He could barely walk around, so I was carrying him everywhere. He could barely stand up long enough to eat. When he reached the point where he could no longer stand up on his own and needed help going outside to potty, I knew it was time to do something.

One option I considered was getting him a doggie wheelchair. However, I knew that Norman had a lot of dignity, and I didn't want to keep him here just for me. I thought about it for days, praying and talking 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 held Norman in my arms as he took his last breath and crossed 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 one of the hardest things I've ever done. But I knew it was time, and it was the best thing for him.

Please don't let Norman's passing dishearten you in any way. Remember, he survived nearly 2 years after his initial diagnosis of cirrhosis, even though he was given only a month to live. Moreover, I have seen 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 canine companions.

"Every once in a while, a dog enters your life and changes everything." — Unknown.

Norman changed my life. He inspired me to write this book. Caring for him awakened a passion for dogs that I didn't know I had. I have continued to learn more and more about homemade diets, canine nutrition, natural remedies and supplements.

I used my knowledge and received further training to become a pet nutrition specialist and a dog trainer. I help dogs and their owners with custom diets, natural supplements, and behavior and training issues. I specialize in dogs with liver disease and food sensitivities. I have my own business called Pawtastic Pet Solutions, where I work as an Integrative Pet Specialist and Certified Professional Dog Trainer. I'm also a puppy expert and doodle lover. My life is now all about dogs! I never would have expected this to happen all because of a dog named Norman or my book.

I have corresponded with countless other pet parents like you about taking care of their liver dog. All the people who write to me are 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. Those who don't have this connection don't know what they're missing.

*"Dogs come into our lives to teach us about love.
They depart to teach us about loss.
A new dog never replaces an old dog,
it merely expands the heart." - Erica Jong.*

Norman still comes into my mind from time to time. Sometimes, I slip and call my current dog Jackson, Norman, by mistake. He even appeared in my dreams last night as I was working on the 20th-anniversary edition. Norman is no longer by my side, but his paw prints will forever be on my heart.

Norman was more than a dog, he was my greatest teacher and my constant inspiration. His life was a gift that touched and healed thousands of other dogs with liver disease. I hope his story inspires you to never give up hope, to try a homemade diet, to be a 2.0 pet parent, and to seek the best holistic treatment for your canine companion. Their lives are precious, so cherish every moment you have with them.

Hoping for your dogs' healing and happiness,

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-Science™) (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.

Original Healthy Powder

Amount	Ingredient	Comment
2 cups	Nutritional (torula or brewers) yeast	Rich in B vitamins, iron and other nutrients. (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.
¼ cup	Kelp powder	Iodine and trace minerals. Be careful of iodine amount
¼ 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.

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	
¼ 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 ¼ teaspoon per meal).

In the fourth edition of *Dr. Pitcairn's Complete Guide to Natural Health for Dogs & Cats*, Dr. Pitcairn replaced the use of the Healthy Powder and Calcium with a supplement called *Vegepet™*. I have not updated the original recipes that say to use Healthy Powder.

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: Quick-Start FAQs & Checklist

Over the last 20 years, I have been approached by hundreds of people with dogs with liver disease. I've rewritten this quick-start guide to help you find the answers to some of the common questions that I've been asked.

I've listed the FAQs with summary answers, along with where to get the full answers in my book. Then, I'll give you a checklist of actions to take.

This guide is not meant to be medical advice but to point you to the section in my book that will answer your burning questions and get you started as quickly as possible.

The format of this guide is:

Question: The question that you may have about your dog's liver condition or treatment.

Summary Answer: A brief answer that gives you the main idea or the basic information that you need to know right now.

Checklist of actions: A list of steps or tasks that you should do or follow based on the answer.

Where to get the full answer: The chapter or page number in my book where you can find more details, explanations, and examples about the answer.

Is liver disease in dogs treatable and manageable?

If you are looking for hope for your dog who has been diagnosed with liver disease, or a shunt, or just elevated liver enzymes, you have come to the right place. I know how scary and overwhelming this situation can be, as I have been through it myself with my dog Norman.

But I want to tell you, **THERE IS HOPE!** Liver disease does not have to be a death sentence for your dog. It is treatable and manageable. There are many ways to help your dog heal and recover from liver damage.

In this book, you will find out how I did it with my dog Norman 20 years ago and how you can do it too. You will also find updated information and resources to help you along the way. This book has been used by thousands of other pet parents like you, and many dogs have gone on to live for 2, 4, and even 9 years after a terminal diagnosis.

The reason why this miracle is possible is because of two facts. First, the liver is an amazing organ that can regenerate and restore its function, even after being damaged by toxins, infections, medications, or genetic disorders. Second, there are natural remedies, homemade

food, detoxification, and lifestyle changes that can support liver health and well-being. These two facts are the reason why there is hope and what has helped thousands of dogs with liver disease live longer and happier lives.

When I wrote the first edition in 2003, liver disease was the 5th leading cause of death in dogs. Now, it's not even on the list! That should give you further hope.

- Read the rest of the FAQs to get your specific questions answered.
- Read Chapter 1-Norman's Story, to be inspired by his story of healing.

How can I help my dog if they have liver failure, cirrhosis, or liver toxicity and the vet says there is nothing else they can do? (They have symptoms like yellow skin, eyes, and gums, confusion, seizures, swollen belly, and off-the-charts liver enzymes)

I know how devastating and hopeless this situation can feel, but I want to tell you that there is hope.

Here's a checklist with the most important steps you can take in the first few weeks to help your dog and give them a chance to recover.

- Stop feeding your dog any commercial dry food (even prescription diet). These foods are difficult to digest and often contain toxins that can harm your dog's liver and make their condition worse.
- Instead, you should feed your dog an easy-to-digest home-cooked meal and let food be the best medicine. Start with Dr. Dodd's Liver Cleansing Diet. This diet is designed to provide your dog with the nutrients they need to support their liver function and detoxification while avoiding the ingredients that can aggravate their liver disease.
- You should feed your dog 4-6 very small meals per day, every 4-6 hours, to reduce the toxin levels in their blood and reduce the workload of the liver.
- Give your dog a double dosage of Milk Thistle and a standard dosage of Vitamin E with food. These are natural supplements that can help protect and repair your dog's liver cells, reduce inflammation, and improve liver function. You should break the Milk Thistle dosage into 3 doses and give them to your dog every 6-8 hours. You should give Vitamin E with food and the last dose of Milk Thistle in the evening or before bed.
 - Standard dosage of Milk Thistle for liver disease is 100-200mg per 10lb, which can be divided into 2-3 doses per day (concentrated extract, 80% Silymarin). You can safely give the higher dosage of 200mg per 10lb for 3 weeks during the initial crisis.
 - A standard dosage of Vitamin E is 100IU per day.
- Use a human brand of Milk Thistle extract that is standardized to 80% silymarin. Human brands of milk thistle are more reliable and effective than pet brands, as they

- are more regulated and standardized and contain higher concentrations of silybin, the active ingredient that supports the liver function. Pet brands are often low-quality and diluted and are only suitable for dogs that need a mild detoxification, not a therapeutic treatment. Don't use a liquid milk thistle unless your dog is very small.
- If your dog isn't eating, hold off on giving your dog SAM-e (Denamarin, Denosyl, Zentonil) as it must be given on an empty stomach and can make your dog nauseous and not want to eat. You can resume this once your dog is eating.
 - Do not give your dog flea, tick or heartworm treatments.
 - Do not give your dog vaccinations.
 - Avoid chemical cleaners in the home. Use green cleaning products instead, or make your own.
 - Avoid using lawn care products. Chemicals used in lawn care products, such as fertilizers and herbicides, will further tax your dog's liver, and these products have been linked to cancer in dogs. Discontinue using any pest control services.
 - Do not give your dog a bunch of other supplements, as they may make things worse. Do not use any supplements that say they treat ALL liver conditions, as they usually contain a mixture of herbs. Remember, the liver has to process everything.
 - Depending on the severity and type of liver disease, other medications may be needed to manage symptoms. These are safe and effective: lactulose, sucralfate, anti-nausea medications, antacids, ursodiol/actigall, and metronidazole (Flagyl).
 - Be careful with medications and supplements for your dog. Some can harm their liver. Ask your vet about any drug or supplement they give your dog. Some drugs that can cause liver damage are:
 - Steroids, for autoimmune liver diseases, but can cause fatty liver, inflammation, and infections .
 - Antibiotics, like amoxicillin, clavulanate, and neomycin, can cause liver inflammation and injury.
 - Anti-seizure drugs, like carbamazepine and phenobarbital, can cause liver damage, especially with long-term or high doses.
 - Cholesterol-lowering drugs, like simvastatin, can cause liver injury and dysfunction.
 - Anti-inflammatory drugs, like Rimadyl, can cause liver damage.
 - Cancer drugs, like methotrexate, can cause liver toxicity and fibrosis.
- Check the label, insert or online for liver warnings on all medications.
- Provide distilled water for your dog for the first 4 weeks. You should give your dog a fresh bowl of distilled water every day and make sure they drink enough water to stay hydrated and flush out toxins from their body. Your dog should drink about 8oz of water per 10 lbs of weight. You should also take your dog outside to urinate frequently to release the toxins in their urine and prevent them from building up in their system. If they are not drinking water, they could get dehydrated. If this happens, take your dog to the vet for IV treatment to flush toxins.

- Get a notebook or journal and start making notes and tracking everything. Write down what your dog eats, what supplements you give them and when. Write down any symptoms your dog has with date and time. Record any changes in your dog's condition and behavior. Collect all test results and keep them together in a folder or binder.
 - Be patient and supportive with your dog. If your dog is not eating, don't panic. Let them rest and recover. They don't feel well and may have nausea or loss of appetite. Keep offering them water and make a very simple meal for them, such as eggs and potato or oatmeal and pumpkin. No meat and no commercial dog food. If they do not eat for over 24 hours, go to the vet.
 - If you are upset, keep your distance so your emotions do not affect your dog. Stay calm and positive when you are around them. Be gentle and praise them for being such a good boy or girl.
 - Give them lots of love and attention. Spoil them rotten! (but no junk food)
 - In a month, go back to your Vet to get blood levels rechecked and shock your veterinarian with their remarkable improvement.
- Read everything! You need all the information you can get to help your dog.
 - Read Chapter 3 and 4 about homemade diet.
 - Read Chapter 5 about supplements and dosage.

What should I give my dog if they have high liver enzymes?

Two natural supplements that you should give your dog if they have high liver enzymes are:

- Milk Thistle. Use a supplement standardized extract to 80% silymarin.
- Vitamin E with food and 1 dosage of milk thistle in the evening or before bed, as it improves the effectiveness of lowering enzymes.

These are antioxidants that can help protect and repair your dog's liver cells, reduce inflammation, and improve liver function. The combination of both milk thistle and Vitamin E have shown to be more effective than milk thistle or SAM-e alone.

- Read about these and other supplements and their dosages in Chapter 5.

Can I give my dog milk thistle along with SAM-e (Denamarin, Denosyl, or Zentonil) for liver support?

Yes, you can give your dog milk thistle along with SAM-e for extra liver support. Milk thistle has more benefits than just SAM-e or silybin.

SAM-e is a natural compound that can improve liver function and mood. Denamarin is a combination of SAMe and silybin. Silybin is the active component of milk thistle that can protect the liver from toxins and inflammation.

However, Denamarin does not have all the benefits of the whole herb milk thistle, which contains other compounds that can also support the liver. So, giving milk thistle along with Denamarin can be beneficial, as it can provide additional support for the liver and enhance the absorption and effectiveness of silybin.

- Give your dog the standard dosage of milk thistle at night with food and vitamin E, and give Denamarin or SAM-e in the morning without food. Don't give them together or within 3 hours of each other.
- Read about these and other supplements and their dosages in Chapter 5.

Why should I avoid feeding my dog commercial prescription dog food? Are there any fresh food commercial options that are good for liver disease?

You should avoid feeding your dog commercial prescription dog food because it is a one size fits all diet. Commercial prescription dog food may not suit your dog's specific liver condition and needs. For example, it has low protein, but not all dogs need that.

Here are several other reasons why you should avoid commercial prescription dog food:

- Commercial prescription dog food has low-quality ingredients, chemicals, and synthetic vitamins that can harm the liver.
- Commercial prescription dog food may have contaminated protein sources that can cause illness in dogs.
- Commercial prescription dog food has low-quality grains, like brewers rice, that lack nutrients.
- Commercial prescription dog food is hard for your dog to digest and puts more stress on the liver. The liver may not be able to get the nutrients from the food or may have to work harder to do so.

Yes, there are fresh food options that are good for your dog's liver health. For example, Just Food For Dogs® Hepatic Support is a fresh food that is similar to Dr. Dodd's Liver Cleansing Diet.

- Read Chapter 3 about the Liver-Friendly Diet.

How is the treatment for a shunt different from the treatment for liver disease?

Here is a list of the main differences in the treatment for shunt:

- The best treatment for shunt is surgery to correct the abnormal blood vessel that bypasses the liver. If surgery is not an option, then medical management and low protein diet is recommended.
 - Vitamin E should be avoided before surgery, as it can increase the risk of bleeding.
 - Medical management is used to reduce the symptoms of shunt. Medications such as lactulose, antibiotics, and anticonvulsants are used to lower the ammonia levels and prevent confusion and seizures associated with hepatic encephalopathy (HE).
 - Lactulose is a common medication for shunt, and it should be given with every meal rather than twice a day to prevent HE episodes.
 - A very low-protein diet is essential for shunt, as too much protein can cause (HE). The protein sources should be non-animal, such as dairy, soy, or eggs, and the amount should be gradually increased until the dog can tolerate it.
 - Use the recipes that are labeled low-protein or shunt or replace animal-based protein like chicken or turkey with cottage cheese, tofu, or eggs.
 - Picky eating is common in dogs with shunt, so they need extra care and motivation to eat. Make simple meals with separate ingredients so you can avoid wasting food if your dog rejects something. Warm up the food and make it smell appetizing. Try different ways of feeding your dog, such as hand-feeding, serving on a plate, or adding broth.
 - The diet is the most critical part of the medical management for shunt, as HE is the most dangerous complication. If you are not comfortable with making a homemade diet, you should consult a nutritionist to get a customized diet plan for your dog.
- Read about low protein diets in Chapter 3.
 - Look for low-protein recipes in Chapter 4.
 - Supplements like Milk Thistle and SAM-e are still recommended, see more in Chapter 5.
 - Lifestyle changes and special care are still recommended, see Chapter 6.

What should I do if my dog is not eating?

If your dog has been eating and suddenly stops or has not eaten in over 24 hours, call your vet right away. They may need IV fluids to prevent dehydration and flush toxins.

If your dog is a picky eater in general, then read Chapter 6 – section called “Help Me! My Dog Won’t Eat”.

- Give your dog supplements with B12 or B complex, or ask your vet for B12 shots to boost their appetite.
 - If your dog is hanging their head over their bowl and not eating, they may be nauseous in which case ask your vet for anti-nausea medication.
 - Make mealtime fun and stress-free. Feed your dog by hand and act like their food is a treat.
 - Avoid mixing medications in your dog's food. Stop giving your dog SAM-e, as it can cause nausea. You can resume SAM-e after your dog starts eating again.
 - Feed your dog simple meals with low protein and high carbohydrates, such as eggs and potatoes or oatmeal and chicken or broth. Don't feed your dog just meat, such as just chicken.
 - Give your dog a digestive aid to help with their stomach problems. Once their tummy settles, they may start eating again. You can also add digestive enzymes and some cooked potatoes, sweet potatoes, or oatmeal to each meal to help your dog digest the food and remove toxins.
- Read 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.
 - 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.
 - Read Chapter 7: “Gastritis or Stomach Problems,” to better understand common stomach problems. Look for clues to identify the underlying cause and appropriate treatment.
 - Read Chapter 6 – section called “Help Me! My Dog Won’t Eat.”

What should I do if my dog wants to eat all the time?

If your dog wants to eat all the time, it may be a sign that they are not getting enough nutrients or calories from their diet. You can try the following steps to improve their nutrition and appetite:

- Determine the amount of calories your dog needs and estimate the amount of calories your dog is getting. If they aren’t getting enough calories then adjust their diet to give enough calories. A couple ways to do this are to: add another small meal, or increase amount of all meals.
- Determine the amount of protein in your current diet. Increase the amount of protein in small increments in each meal, gradually and carefully.
- If they are getting enough calories and enough protein, then feed your dog more frequently, but in smaller portions. Dogs with liver disease need to eat several small meals a day. You can add another small meal either at night before bed or in the middle of the day, in addition to the regular meals. This will help your dog get enough food without overloading their liver or stomach.

- Add a digestive enzyme to each meal to help your dog absorb the nutrients better. Your dog may have trouble digesting the food due to their liver condition, and a digestive enzyme can help break down the food and make it easier for your dog to assimilate.
- Give your dog milk thistle and Vitamin E with food.
- Read Chapter 3 to learn about the types of food that are good for your dog's liver and how many calories they should be getting.
- Read Chapter 4 to find some easy recipes to start with. These recipes are designed to provide your dog with the essential nutrients and calories they need to support their liver function and health.

What should I do if my dog is vomiting at night or in the morning before eating?

Vomiting when the stomach is empty either during the night or early in the morning before eating may be a sign of gastritis, stomach problems or low bile production. You can try the following steps to help your dog:

- Make your dog a homemade diet that is easy to digest.
- Feed them several small meals a day and give them a small meal or snack before bed.
- Add digestive enzymes to their meals to help with digestion.
- Ask your veterinarian about your dog's bile system and if they need extra bile to help with digestion. Low bile production can cause vomiting and poor digestion. Your vet may prescribe a medication such as Ursodiol.
- Read Chapter 3 to learn about the liver-friendly diet.
- Read Chapter 4 to find some easy recipes to start with. Try to offer your dog something that they will eat, and that will not irritate their stomach.
- Review Chapter 1, especially the sections "Norman's Next Crisis..." and "Trial and Error..." to learn how to identify and avoid the food items that can worsen your dog's liver condition and cause vomiting.
- Read Chapter 7 to understand the common stomach problems that your dog may have, such as gastritis or ulcers.

How do I talk to my vet about homemade diet and supplements?

Talking to your vet about homemade diet and supplements can be challenging, as some vets may not be familiar or supportive of these alternative treatments. However, you will be seeing your vet regularly, so it's important to be open and let them know about your desire to feed fresh food and use natural supplements as complementary treatment to support your dog's liver.

Here are a few suggestions:

- Express how much you love your dog and that you've read about some success stories with dogs with liver disease who ate a fresh, liver-friendly homemade diet with milk thistle and other supplements.
- Tell them that it gave you hope, and you feel like you have nothing to lose by trying this.
- Tell them some of these recipes are created by veterinarians and using recipe balancing solutions like BalanceIt.

The most important thing is to be your dog's advocate and get the treatment and answers that you want for your dog. You know your dog better than anyone else.

How do I monitor my dog's liver disease and check the results of the treatment?

At this critical stage of liver disease, things can change for the better or for the worse.

You can monitor your dog's liver disease by watching their symptoms and behavior, rechecking their blood levels and performing your own checkup. Then, compare the changes and improvements in your dog's condition over time.

One way to know if your dog's liver disease is getting worse is to check if the original symptoms persist or if new symptoms appear. This may indicate that the liver is not responding to the treatment or that there are other complications.

- You should watch your dog like a hawk and look for any signs of worsening liver disease, such as:
 - 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 (HE)
- Take notes and track your dog's progress in a notebook or journal.
- If you notice any of these signs, you should take your dog to the vet as soon as possible to check their liver function and find the cause of their symptoms.
- Have blood levels rechecked monthly or as often as your vet recommends.
- Read Chapter 1 to learn more about what to look for and what to write down.

- Read Chapter 6 to learn more about each symptom, what to look out for, what to track and how to give your dog a checkup during this critical stage.

Conclusion

This Quick Start FAQ is designed to help you get started with the information that I share in my book. I know that you may feel overwhelmed and confused by the diagnosis of liver disease in your dog, and you may not know where to begin. That's why I created this checklist and FAQ.

I hope it provides you with the information and resources you need to care for your dog and improve their liver function and quality of life. I also hope that you will find inspiration and hope from the success stories of other dogs who have benefited from the natural and holistic approach that I recommend.

I urge 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 will feel better knowing you did everything you could to help, save, or prolong your dog's life.

Appendix E: 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 a baking sheet and let dry overnight.
- 8) 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, Dr. Dodd's Liver Cleanse Diet needs about ½ 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

- 1) 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/>
- 4) Vegedog™ is available online. <https://compassioncircle.com/vegedog/>

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- 17) Watson, Hilary. *Complete & Balanced - 101 Healthy Home-made Meals for Dogs*. 2nd ed., HW Veterinary Nutrition Inc., 2009.
- 18) Yeager, Selene. *The Doctors Book of Food Remedies*. Rodale, 1998.
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- 2) Dr. Michael T. Murray, "Nature's Liver Remedy: Milk Thistle Extract," Ask the Doctor
- 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," <http://www.pet-grub.com>
- 5) The Senior Dogs Project, "A Review of Signs of a Potentially Life-threatening Reaction to Rimadyl," <http://www.srdogs.com/Pages/rimadyl.ade.steps.html>
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- 7) W. Jean Dodds, DVM, "Dr Dodd's Liver Cleansing Diet," <https://hemopet.org/cleansing-diets-2/>
- 8) Janet Tobiassen Crosby, DVM, "How is a Bile test performed, and what does it mean?" http://vetmedicine.about.com/od/diseasesandconditions/f/FAQ_bileacidstst.htm
- 9) Dr. Sara Ochoa, DVM, a veterinarian at Whitehouse Veterinary Hospital - <https://www.whitehousevethospital.com/>
- 10) [Excel spreadsheet with recipes from the book Home-Prepared Dog and Cat Diets by Patricia A. Schenck](http://wiley.com/go/schenck) (<http://wiley.com/go/schenck>)
- 11) Watson, Hilary. "Understanding Protein in Canine Liver Disease and HE." Canine Nutrition Newsletter, Oct. 2010, pp. 1-4.
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Canine Liver Disease Resources

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

More Resources

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

Veterinarian & Pet Nutritionists, and Fresh Food Consultants/Software

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

- Directory of American College of Veterinary Nutritionists: <https://acvn.org/>
- Directory of fresh food consultants: <https://freshfoodconsultants.org/>
- Hemopet (Dr. Dodds) - <https://www.nutriscanlabs.org/pages/online-consults>
- Monica Segal - <https://www.monica-segal.com/>

- Spot on Canine Nutrition - <https://www.spotoncaninenutrition.com/>
- Functional Canine - <http://www.functionalcanine.com/> (food intolerances)
- Dr. Rebecca L. Remillard, Veterinary Nutritional Consultations, Inc. - <https://www.petdiets.com/>

Dog Food Formulation Software to create your own recipes:

- Animal Diet Formulator (AAFCO, FEDIAF) - <https://animaldietformulator.com/> (monthly subscription)
- Pet Diet Designer (NRC) - <http://www.petdietdesigner.com/en/> (one-time 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 <https://hopeforhealing.com/dog-calorie-calculator/>

Food Sensitivity/Intolerance Test Kits

- The gold standard in food intolerance tests is NutriScan - <https://www.nutriscanlabs.org/products/nutriscan>
- Dog Allergy Test <https://www.easy-dna.com/dog-allergy-test/>
- [5Strands Pet Food & Environmental Intolerance Test](#) on Amazon
- [Allergy Test My Pet](#) on Amazon
- [AnimalBiome Gut Microbiome Health Test](#) on Amazon

Diagnosing Liver Disease

- <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, from 2003, when they lived in Wimberley, Texas.

<http://www.hopeforhealing.com/norman-video/>

About the Author



Cyndi Smasal wants to help you and your dog live a long and happy life together. She is an Integrative Canine Specialist with over 20 years of experience in natural holistic health and nutrition for dogs. She learned everything she could about this topic when her own dog, Norman, was diagnosed with terminal cirrhosis. She was able to extend his life by 2 years with a homemade diet and natural supplements. She wrote two books to share her knowledge and experience with other dog lovers: 'Hope for Healing Liver Disease in Your Dog' and 'Help Me! My Dog Won't Eat'.

Cyndi has a degree in Computer Science from the University of Texas at San Antonio. She used her skills and knowledge to work in the high-tech computer industry for 15 years. However, she realized that her true passion was helping dogs and their people, so she made a courageous career change in 2012. She became a certified professional dog trainer and started her own business, Pawtastic Pet Solutions.

Cyndi lives in San Antonio, Texas, with her adorable companion, Jackson, an Australian Labradoodle. She met Jackson when he was a 3-day-old puppy and felt a deep connection with him. He is her constant companion, who loves to learn new skills and test new recipes that Cyndi creates for her clients. Cyndi would like to believe that Jackson is Norman in a new body, who continues to teach her and guide her. He reminds her of the dog, Bailey, in the movie 'A Dog's Purpose', who finds his way back to his original owner in a reincarnated dog body.

Cyndi's purpose in life is to empower devoted pet parents like you by sharing valuable information, so you can provide your dogs with long, joyful, healthy lives and cherish a truly rewarding companionship. She invites you to join her on this journey she calls being a 2.0 pet parent.

Cyndi Smasal, CPDT-KA

<http://www.cyndismasal.com>
<http://pawtasticpetsolutions.com>

About the 20th Anniversary Cover

The Dogs Who Beat Liver Disease

One of the most rewarding things about writing this book was receiving dozens of letters and pictures over the last 20 years from pet parents whose dogs overcame liver disease with the help of my book. I wish I could put them all on the cover, but I had to choose just five. These are real dogs with real stories of hope and healing. Here are their names and a little bit about them.

Pip is the Jack Russell Terrier who defied the odds and lived for nine years after a terminal diagnosis. His full story is told by his mom in the Foreword.

Joey is the White Retriever with a rose in his mouth. He had liver issues most of his life, but his mom never gave up. His blood levels and his quality of life improved with the natural and holistic treatments in this book.

Solo is the Merle Dachshund who lived a long happy healthy life, long after the Vet expected. His mom used the treatments to help him heal and recover. She also found the online liver group and went on to help countless more dogs with liver disease.

Kenzie is the white and tan Papillion who was suffering from liver failure and told she wouldn't survive the night. Her mom gave me this picture three months after using my book to save her life.

Ringo is the Black Lab with a grey muzzle. He lived to reach the age of 18, thanks to the treatments in this book.

These are just a few of the dogs who beat liver disease with the help of this book. I wrote it to save dogs' lives, and I hope it will do the same for you and your dog. Their stories are a source of hope and healing.

