

## Dog Health Survey

As the ranks of vegetarians in the United States and around the world grow in number, many are applying the same ethical considerations and health benefits to their companion dogs who are omnivores just as we are. The ethical advantages are no different than for human vegetarians — a break with the slaughterhouse and with cruelty to animals raised for food. The health benefits would appear to be equally compelling, since the meat found in dog food generally consists of that deemed unfit for human consumption.

Yet a cloud of controversy hangs over the issue of whether a dog can live healthfully on a vegetarian (meatless) or vegan (animal product-free) diet. Though discussed at length in the popular media, no one seems able to offer more than anecdotal evidence to support one view or the other. In an effort to settle the question and quell the nagging doubts of those who choose to provide their companion dogs with a vegetarian diet, a survey was initiated to gather and analyze data on the diet and health status of a large number of vegetarian dogs. Participants were solicited through PETA's newsletter, and data on 300 dogs over a period of one year were received. The survey included questions on the dogs' diets and health history, as well as general information, such as age, breed, and sex.

In retrospect, it is clear that a control group of meat-eating dogs should also have been surveyed for purposes of comparison. Since this was not done, and since a computer search for health statistics on North American dogs turned up no helpful statistics, the data in this study are descriptive in nature rather than conclusive about the canine vegetarian diet, but they do offer helpful insights and general assurances, such as, for example, the fact that 82% of dogs who had been vegan for five years or more were in good to excellent health.

### GENERAL PROFILE OF PARTICIPANTS

Responses to the survey came from 33 states and Canada. Of the 300 dogs involved, 158 (52.7%) were female and 142 (47.3%) male. Most dogs were spayed or neutered (266, or 88.7%), and, of those who were not, 22 were male and 12 female. Dogs ranged in age from young puppies to 19 years old, with the following breakdown:

Up to 3 years old:	4 - 6 years old:	7 - 9 years old:	10 - 12 years old:	13 - 15 years old:	16 years old or more:
68 (22.7%)	74 (24.7%)	78 (26%)	36 (12%)	34 (11.3%)	10 (3.3%)

There were slightly more mixed-breed participants than purebred: 167 (55.7%) vs. 133 (44.3%). Specific breeds ran the gamut from akitas to yorkies, with a larger number of terriers (22), retrievers (22), beagles (7), and Dobermans (6). As for diet, more participating dogs were vegan (196 or 65.3%) than vegetarian (104 or 34.7%).

## HEALTH PROFILE: RESULTS AND DISCUSSION

### Overall

Early on in the analysis of the data, it became evident that it would be necessary to be able to differentiate dogs who were in "good to excellent health" from those who were not. This question had not specifically been asked in the survey, but some participants volunteered the information. Others who wrote comments such as, "Happy, active demeanor, very shiny coat, lean, energetic," or "Beautiful coat and teeth, no bad odors, energetic, good weight," but didn't specifically state, "good to excellent health," were nevertheless put into the "good to excellent health" category, since their exclusion would have been based only on phrasing, not on the substance of such responses.

Other dogs receiving this designation were those who had only minor health problems, such as "tartar buildup," those with no health problems whatsoever, those who had one previous isolated incidence of a problem, such as, "unexplained seizure three years ago," and those who were only injured through an accident, such as accidental poisoning or breaking a leg in a car accident. The total number of dogs labeled "in good to excellent health" was 229 (76%).

The following chart illustrates the breakdown of vegans and vegetarians by the length of time they maintained a meatless diet:

DURATION (DIET)	UP TO 2 YRS	3-5 YRS	6-8 YRS	9+ YRS
VEGAN	94 (31.3%)	58 (19.3%)	12 (4%)	16 (5.3%)
VEGETARIAN	67 (22.3%)	29 (9.7%)	15 (5%)	9 (3%)
TOTAL	161 (53.7%)	87 (29%)	27 (9%)	25 (8.3%)

There appeared to be a distinct advantage to being a vegan or vegetarian for a larger percentage of one's life—all of the following percentages are greater than for the entire surveyed population:

Of the 12 lifelong vegetarians in the study, 100% were in good to excellent health.

Of the 26 dogs who had been vegan or vegetarian for 90% of their lives, 22 (84.6%) were in good to excellent health.

Of the 65 dogs who had been vegan or vegetarian for 75% of their lives, 53 (81.5%) were in good to excellent health.  
 Of the 142 dogs who had been vegan or vegetarian for 50% of their lives, 120 (84.5%) were in good to excellent health.

There also appeared to be a health advantage to veganism over vegetarianism: 82% of dogs who had been vegan for five years or more were in good to excellent health, while only 77% of dogs who had been vegetarian for five years or more were in good to excellent health.

### Deaths

Twenty-eight deceased dogs were included in the survey. Excluding the three dogs who either died in accidents or were euthanized for aggression, the median age of death was 12.6 years. The average length of time as a vegan or vegetarian was 5.7 years. Causes of death were as follows:

Cancer	Heart Problems	"Old Age"	Miscellaneous (renal, spinal, liver cirrhosis, arthritis, and unknown)	Accidents	Euthanasia for Aggression
8 dogs	7 dogs	5 dogs	5 dogs	2 dogs	1 dog

### Specific Health Problems

#### INFECTIONS

##### Overview

The most common health problem was infections of all kinds. Thirty-five dogs (11.7%) suffered some type of infection, with ear infections the most common (16 dogs), followed by urinary tract infections (eight dogs), eye infections (six dogs), and other miscellaneous infections (seven dogs). Interestingly, there was an inverse relationship between length of time as a vegan or vegetarian and incidence of infections:

- No dog who had been vegan for more than four years or vegetarian for more than 5.2 years contracted infections.
- No dog who had been vegan for more than 3.5 years had an ear infection.
- No dog who had been vegetarian for more than four years had a urinary tract infection.
- No dog who had been vegan for more than four years had an eye infection.

### Urinary Tract Infections

Eight dogs in the study (2.6%) had a history of urinary tract infections. According to one veterinarian, this figure is somewhat higher than the expected rate of infection (about 1%). It has been suggested that a vegetarian diet could possibly result in an increase in the alkalinity of a dog's urine, thereby creating prime conditions for urinary tract infections. This theory could not be confirmed, so it was decided to do a quick test of the alkalinity (pH) of the urine of all the vegetarian dogs of the PETA staff.

#### Alkalinity (pH) Test of PETA Staff Dogs' Urine

Thirty-three dogs were tested with the following results:

pH	5.8	6.0	6.2	6.5	6.8	7.0	7.5	7.7	8.0	8.2	8.5
females	0	5	1	0	1	0	1	0	0	1	3
males	1	4	2	3	0	2	2	1	1	1	4
				Normal pH							

Fourteen dogs had a urinary pH which could be considered too alkaline (above 7.0), while 18 had a pH within the normal range. Five dogs out of the 33 (15.2%) had a history of urinary tract infections, but surprisingly, two of the five had a pH within the normal range (6.2 and 6.8). Conversely, there were 11 dogs with excessively alkaline urine who had no history of urinary tract infections.

Of those dogs with urinary tract infections, four were female and one male. This is in keeping with the larger dog survey, which found that, of the dogs with a history of urinary tract infections, six were female and two male (i.e., females appear to be more prone to them).

In spite of the inconsistencies in the data, it might be advisable to test vegetarian dogs' urine at intervals, given the relatively high percentage of dogs whose urine was highly alkaline and the high percentage of dogs with a history of urinary tract infections.

Any dog with highly alkaline urine could be closely monitored for urinary tract infections, and any dog who contracted one could be put on cranberry capsules to prevent recurrence of the problem.

### SKIN PROBLEMS

A close second to infections was skin ailments. Thirty-four dogs (11.3%) suffered from some form of skin irritation (hot spots, flea allergy, dermatitis, etc.), but eight of these were considered to be minor.

## **ARTHRITIS**

The third-ranking health problem was arthritis, 22 dogs (7.3%) having this condition. Seven of the 22 dogs had gotten arthritis because of old injuries, such as broken bones. Of the remaining 15 dogs, 13 were 10 years old or older.

## **BENIGN GROWTHS**

Fourteen dogs (4.7%) had benign growths, tumors, warts, or cysts. There did not appear to be any pattern to this particular condition.

## **HEART PROBLEMS**

Twelve dogs (4%) had heart problems, and seven of the 12 had died as a result of those problems. Five of the dogs who died of heart problems were 13 to 15 years of age, which is not out of the ordinary. Nevertheless, this category of health condition still appears to be a potential trouble spot (the only serious one) in the study for vegetarian dogs. The problem lies in the fact that, although for 12 dogs out of 300 to have heart problems is probably not statistically unusual (and, in fact, two of the 12 only had slight heart murmurs), the trend for heart disease is the opposite of that for infections, i.e., there was a direct correlation between heart disease and length of time as a vegan or vegetarian: All dogs with heart disease had been vegan for at least four years or vegetarian for at least 10 years.

The most common heart problem and the one of greatest concern was dilated cardiomyopathy (five dogs had this disease, in which the heart muscle enlarges, becomes flabby, and can no longer function). All dogs with dilated cardiomyopathy had been vegan for at least four years. Dilated cardiomyopathy has until recently been considered a terminal illness, but, of the five dogs in the study who had it, three recovered by taking supplements of either L-carnitine or taurine (amino acids). There is a good deal of evidence correlating dilated cardiomyopathy with both genetic factors and a deficiency in either L-carnitine or taurine. (This phenomenon has been seen to a greater extent in cats.)

Prevention of dilated cardiomyopathy appears to be possible through regular supplementation with these two amino acids.

## **OVERWEIGHT**

Eleven dogs (3.6%) were considered by their guardians to be overweight. However, all 11 dogs were nonetheless described as in good to excellent health or energetic.

## **DIGESTIVE PROBLEMS**

Ten dogs (3%) were identified as having digestive problems. Of these 10, nine were 7 years old or older. The significance of this fact will be discussed in greater depth in the conclusion of this study in connection with digestive enzymes and related problems in later life.

## **HYPOTHYROIDISM**

Eight dogs (2.6%) had hypothyroidism (underactive thyroid). However, no dog who had been vegan for more than three years had hypothyroidism, and no dog who had been vegetarian for more than four years had it. This seems to indicate that the longer a dog is on a meatless diet, the less the likelihood of hypothyroidism.

## **DEAFNESS AND HEARING LOSS; BLINDNESS OR VISION LOSS**

Eight dogs (2.6%) were deaf or had hearing loss, but seven of the eight were 13 years old or older. Similarly, seven dogs (2.3%) were blind or had vision loss, but six of the seven were 13 years old or older. The younger blind dog was a collie with congenital blindness.

## **CANCER**

Eight dogs in the study (2.6%) were afflicted with cancer. Of these eight, six were 9 years old or older. (Two were 7 years old.) The inverse correlation between duration of vegan or vegetarian diet and incidence of cancer appears significant: No dog who had been vegan for more than five years and no dog who had been vegetarian for more than 5.5 years had cancer.

## **Specific Foods**

Dietary supplementation was also considered, but because of the vast array of supplements administered in every possible combination (herbs, vitamins, enzymes, minerals, oils, garlic, nutritional yeast, various brand-name products, etc.), very little in the way of patterns emerged.

## **NUTRITIONAL YEAST AND GARLIC**

However, dogs eating nutritional yeast and/or garlic did seem to fare somewhat better than the rest of the dogs in the survey. Of the 125 dogs eating nutritional yeast, 102 (82%) were in good to excellent health, compared to 72.6% of dogs who did not eat nutritional yeast. Of dogs eating garlic (84), 70 (83%) were in good to excellent health, compared to 80% of those not eating garlic. Dogs eating either nutritional yeast or garlic also had a much higher incidence of good or improved coats than that of the larger population surveyed — for nutritional yeast eaters, 44%; for garlic eaters, 47.6%, as opposed to only 22.9% of dogs not eating nutritional yeast and 17.8% of dogs not eating garlic.

## **SOY FOODS**

The only other specific food item that seemed significant was soy food products. Since all the commercial vegetarian dog foods eaten by the dogs in the study contained soy, very few dogs had no soy products in their diets — only 39 (13%). However, these 39 dogs were in substantially better health than the others. Ninety percent of the dogs who ate no soy products (35 dogs) were in good to

excellent health as compared to 74.3% of dogs who did eat soy products. Also, the incidence of skin problems was much lower in the dogs who ate no soy — only two dogs (5.1%) had skin problems compared with 10.7% of the dogs who ate soy products. Dogs who did not eat soy products relied heavily on grains (oats, rice, bread, and pasta), legumes (chick peas, lentils, split peas, and beans), vegetables, potatoes, and sunflower seeds.

## **SUMMARY**

A number of interesting trends arose from this survey, which merit further attention. Based on the statistics and patterns of this study, the evidence suggests that:

- the longer a dog remains on a vegetarian or vegan diet, the greater the likelihood of overall good to excellent health;
- the longer a dog remains on a vegetarian or vegan diet, the less likely he or she is to get infections, cancer, and hypothyroidism;
- a vegetarian diet may increase the alkalinity of a dog's urine, promoting susceptibility to urinary tract infections, which can be prevented using cranberry capsules;
- the longer a dog remains on a vegetarian or vegan diet without supplementation of L-carnitine or taurine, the greater the likelihood is that he or she could come down with dilated cardiomyopathy;
- veganism is more beneficial than vegetarianism;
- dogs without soy foods in their diet appear to be in better health than those who eat soy;
- and nutritional yeast and garlic appear to be beneficial to overall health and to coat condition.

## **CONCLUSIONS**

Many of the health problems of vegetarian dogs (skin problems, arthritis, and digestive problems) could probably be substantially alleviated with the addition of digestive enzymes to the food. Recently, many veterinarians have been recommending the addition of digestive enzymes because it is thought that cooked food, devoid of enzymes, depletes the body of its own enzymes, causing health problems as the dog grows older. Additionally, if a dog is having difficulty digesting plant proteins, these incompletely digested proteins can be reabsorbed, resulting in allergies and arthritis. Digestive problems can also result when intestinal flora are upset by incomplete digestion.

Dogs eating a vegetarian diet may be more prone to urinary tract infections because of an increase in the alkalinity of the urine. It is a simple matter to test the pH of a dog's urine, and any dog with alkaline urine can be monitored for signs of a urinary tract infection. Dogs who get urinary tract infections should then be given cranberry capsule supplements to prevent any recurrences.

Heart problems are going to require further study. All dogs who had heart disease had been vegan for at least four years or vegetarian for at least 10 years. Five of the dogs who died of heart disease were 13 to 15 years old, which is not out of the ordinary. The main problem to be aware of is the incidence of dilated cardiomyopathy (five dogs had this disease, one only 5 and one 9 years old) and the possible measures to prevent or even cure this ailment. Supplementation with either L-carnitine or taurine appeared to arrest the progress of and cure this condition in the three dogs who recovered from it, and presumably, these two amino acids would be beneficial in the prevention of the disease.

Overall, the results of this study favor the proposition that dogs can live healthfully on a vegan or vegetarian diet. The tendency was for health problems to decrease with length of time on a meatless diet, with the exception of dilated cardiomyopathy, which can be prevented with a simple amino acid supplement. This should be encouraging for people who prefer that their dogs not consume condemned meat or the flesh of animals who have suffered in the factory farming process. Comparison with a control group of meat-eating dogs would render this study even more meaningful.

### **Addendum to Vegetarian Dog Health Survey**

In the results of the Vegetarian Dog Health Survey, the issue of dilated cardiomyopathy (DCM) was raised and it was suggested that vegetarian diets be supplemented with L-carnitine or taurine. Since then, researchers investigating the connection between DCM and diet at the University of California-Davis, North Carolina State, the University of Guelph, as well as a veterinary cardiologist in Richmond, Va., have been interviewed and more information has emerged. Here's a summary:

- Even though L-carnitine and taurine are found in meat, DCM is also a problem for meat-eating dogs, because L-carnitine and taurine get washed away in the processing of the meat in commercial dog food.
- L-carnitine and taurine are not interchangeable. They are very different and a deficiency in one or the other may lead to DCM in some dogs.
- Optimal dosages for prevention of DCM are 250 mg of taurine and 250-500 mg of L-carnitine for a 45-lb. dog daily (adjust doses according to weight). Therapeutic dosages are much higher (1 g of L-carnitine per 10 pounds of body weight per day, about one-half as much for taurine).
- Most L-carnitine and taurine supplements are synthetic, because it's cheaper to produce them that way.

DCM has other causes, too, such as viruses, poisons, and genetics. Genetics is a higher risk factor for Dobermans, cocker spaniels, boxers, golden retrievers, Dalmatians, and all large or giant breeds.

Although only a few dogs will get DCM (approximately 2 percent), the disease comes on devastatingly quickly, produces very few noticeable symptoms, and is most often fatal. Yet, in cases of amino acid deficiency, it can be prevented. So, regardless of what you feed your dogs, supplement their diets with both amino acids, which should be readily available at your local health food store, and spread the word to others who live with dogs.

### **Comments From Survey Participants**

#### **Part 1: Health Transformations in Dogs Who Switch to Vegetarian Diet**

"Barney's general health has significantly improved since I discontinued feeding him a meat-based diet (previously Science Diet or other quality food). The vomiting and gagging has improved, so I reduced medication to about 10%." — Beverly W., Eastlake, Ohio

"For three years prior to this diet, she had abdominal pains, vomiting, bloody stools, was given antibiotics/steroids by vet — did no good — made her feel worse — she no longer has this problem!" — Judy C., Phillipsburg, Kan.

"Before he was vegetarian, he had diarrhea every two to three months. Stool sample was always negative and vet said some dogs are just sicker than others. Since I've had him on veggie diet, he has not been sick at all. This has been approximately one year. He used to eat Science Diet." — Andy S., Chicago, Ill.

"Used to have instances of momentary paralysis and had to be given an aspirin to help her come out of it (lasted five to 15 minutes). Hasn't had any episodes in the last year." — Andrea and Mike B., Ft. Myers, Fla.

"Dog had severe case of osteochondritis dissecans in hind hocks at five months. After operation at Angell and months of aspirin and Feldene treatment, hocks were swollen to the size of golf balls. Following change of diet to natural and vegan and homeopathic treatment, dog is completely normal. She used to be unable to walk around the block and now she will run with my horse for hours with no adverse effects." — Elizabeth F., Bristol, R.I.

"Since becoming vegetarian, she has had a lot more energy..." — Peggy J., Arlington, Texas

"Prior to vegan diet — vomiting acidic yellow substance, ear infections, skin allergies ... vet recommended low-fat high-fiber diet. Tried him on Prescription d/d (Hill's) Lamb & Rice, which caused severe diarrhea. Put him on vegan diet and almost all symptoms disappeared." — Diane W., Rockville, Md.

"They became more playful and energetic with vegan diet." — Carol B., Mountain View, Calif.

"Floyd ... stays at a good slimmer weight since going veg. Loves the food."  
"[Weasel] loves the food — was a picky eater before going veg." — Lanie W., Visalia, Calif.

"He has always had a thyroid problem so he's on thyroid medication. This diet has decreased the amount of supplemental thyroid he must take." "She used to throw up occasionally but since becoming vegan no longer throws up." — Beatrice K., Sunrise, Fla.

"Much better since we switched to vegan diet. Better coat, more energy, revitalized!!!" — Elmo M., Laundale, Calif.

"Two months prior to eating a vegan diet, my dog had cystitis twice, with blood in his urine. He has been tested since and no longer has blood in his urine or cystitis. Since being on a vegan diet, my dog is no longer overweight and lethargic. He looks and plays like a dog half his age. About two to three years before this, he had stopped playing with sticks, balls, etc. It is almost unbelievable to see the positive change in him." — David F., Rumford, R.I.

"Before switching, Rosie developed bloody diarrhea directly related to 'typical' commercial feeding. After almost losing her to bloody colitis, I began cooking for her, but she could not tolerate the levels of pesticides and preservatives that most people ingest in meat and meat products. So I gradually and gently helped her 'evolve' to become vegan — she loves it!!!" "Before switching, Alfie developed severe and persistent itching, diabetes, and an assortment of difficulties directly related to 'typical' commercial foods. After he was on so many drugs from the vet, I investigated [a] holistic approach. Began with meat diet but Alfie cannot tolerate regular meat products and he refuses to eat 'dog bones.' If he eats them, he vomits. So — gradually and gently he became 'veg.' He and Rosie are the picture of health." — Lorraine S., Woodland Park, Colo.

"Since changing from dry [meat-based] dog food to fresh vegetarian food, his skin and coat are great, no signs of the arthritis, [and] he seems happier (especially at mealtime)." — Melissa and Treb H., Santa Ana Heights, Calif.

"Had itchy scaling on top of back by tail. Cleared up after diet change to vegetarian only." "Bowel problems, loose stool, and dry and flaky skin cleared up only after vegetarian diet." — Lela B., West Line, Ore.

"Skin problems cleared up completely on above [vegan] diet." "When we first got her, she had terrible breath, filthy teeth, dry coat, and was overweight. All cleared up on above [vegan] diet." — Alisa M., Fairfax, Va.

"Since I switched her to a vegetarian diet, she lost weight and has greatly increased her energy level — her coat also has improved." "I have noticed an improvement in his coat." — Tara P., Thousand Oaks, Calif.

"Skin/allergy problems better on vegan diet." — Julie D., Rochester, N.Y.

"[He had] diarrhea before the vegetarian diet. This diet has really eliminated the problems he used to experience from a super-sensitive digestive tract." — Diane A., Douglassville, Pa.

"She's kept weight off on vegan diet." — Laura W., Milan, Ill.

"When he became a vegan 18 months ago, his arthritis quit bothering him." — Paula S., Bristow, Okla.

"Prior to switching to vegan [diet] he was very picky — had to be hand fed." — Deborah H., Leicester, N.Y.

"When I adopted this dog, her coat was dull and she was underweight — she has been vegetarian since I got her — her coat is now soft and beautiful, and she is a normal weight." "She was raised vegetarian — this dog is so healthy, and 'playful' is an understatement — this dog never tires of playing (ball, frisbee, etc.)" — Joanie W., Albuquerque, N.M.

"Heidi's coat is shinier and she seems younger and healthier than other dogs her age or even younger." — Frank and Mary H., Athens, N.Y.

"He seems healthier on a vegan diet." "Both dogs seem energetic and happy (much more energetic than most meat-eating dogs I know)." — Heidi S., Sedona, Ariz.

"She used to have dermatitis with alopecia — cleared up after changing to vegetarian diet." — Michael B., Sunrise, Fla.

"She is extremely healthy and happy since going on the vegetarian food." — Pamela D., Oak Creek, Wis.

"Gus is without a doubt in the best health and condition ever — he positively glows! And his attitude is better as well; he's very playful and attentive. Gus improved when I removed corn from his diet, but he improved remarkably when I removed meat from it as well." — Barbara L., Boise, Idaho

"Before he became vegetarian, he had skin problems (flaking and allergies) constantly. These have tapered off to about 25% of what he experienced before." "She also experienced skin problems (itching and rashes) before becoming vegetarian, which have since improved dramatically." — Lori G., Sterling, Va.

"Chronic stomach problems have disappeared since becoming vegetarian. Eats better and has more energy." — Sheldon and Victoria E., Los Angeles, Calif.

"He is less lethargic, less allergic, thinner, more energetic and active. Good appetite, good stools, looks younger." — Veronica M., Naples, Fla.

"Had frequent skin problems before being put on a vegetarian diet." — Susan J., Woodland Park, Colo.

"Before feeding her the Vegedog recipes, she got lams chunks. She would not eat the lams unless we mixed in some of our food (we are vegans, too). Now she eats the Vegedog as fast as she can! She loves it!" — Anne H., Wilmington, Del.

"She has had vomiting instances for years, very brief, for no apparent reason, but these have almost disappeared." — Betty Z., Healdsburg, Calif.

"Yes, her energy level has doubled since becoming vegan. In fact, since witnessing her boost in energy, my whole family has started converting to vegetarianism." — Mark B., Gaithersburg, Md.

"He used to have bad breath and 'doggy' odor, even when eating better-quality commercial meat-based pet food. He also had a wart on one eyelid which has shrunk and disappeared. His stools do not have a disagreeable odor and decompose more rapidly than before." — Karla B., Binghamton, N.Y.

"This dog had a neurologic parasite diagnosed three years ago. This illness was causing him to have seizures. [We] treated this through a vegan diet only; Bandit has regained his health." — Therese R., Halstead, Pa.

"Until she became vegan, she had a lifetime, chronic skin problem (waxy, smelly)." — Courtney A., Wake Forest, N.C.

"Main problem with eyes came specifically from fat content in Eukanuba which she had been eating regularly. The vet took Crash off of any and all animal products, including cheese, eggs, tuna, fish, meat, and poultry. There has been a marked improvement since [my] dog has become vegan. Fat in eyes [is] dissolving." — Barbara B., Cambria, Calif.

"He became a vegan due to dry flaky skin and hot spots — nothing helped. As a last resort, I tried a vegan diet — skin condition improved dramatically. He had pliable skin and no longer suffered from flaking, scratching, and hot spots." — Joyce F., Los Angeles, Calif.

## **Part 2: Health Status of Dogs Who Are Lifelong Vegetarians or Have Been Vegetarians for at Least Three Years**

"Vet says she's in great shape." (4 1/2-year-old Yorkie mix, lifelong vegan) — Courtney A., Wake Forest, N.C.

"Except for dental problems from bad overbite, she was in excellent health up until the last three to four months." (14-year-old Scottie/poodle mix, vegan for 5 years) — Courtney A., Wake Forest, N.C.

"He is in better health than his meat-eating sibling." (7-year-old Great Dane, vegan for five years) — Sharon H., Silver Spring, Md.

"Came to live with us with heartworms and many health problems. Started on vegan diet. Once his problem cleared up, he never had another." (8-year-old poodle mix, vegan for five years) — Sharon H., Silver Spring, Md.

"She has never had any health problems." (10-year-old Labrador retriever mix, vegan for five years) — Sharon H., Silver Spring, Md.

"No less active than when I first got her at the age of 1 1/2 years. She has never been sick." — (11 1/2-year-old pit bull mix, vegetarian for 10 years) — Gail S., McMinnville, Ore.

"Active, spunky, demanding — no different than when she was young." (12 1/2-year-old bassett/beagle mix, vegetarian for 11 years) — Gail S., McMinnville, Ore.

"He has a very good, thick coat of hair, very few fleas. For being a Great Dane at the age of 7 years, he is in very good health and will live many more years. Most Great Danes die at age 7." (7-year-old Great Dane, vegan for five years) — Kathy A., Carlotta, Calif.

"She has never had any health problems at all. ... Very few fleas. As frisky as a puppy. Great coat and teeth. Shiny eyes." (7-year-old terrier, vegan for five years) — Kathy A., Carlotta, Calif.

"She runs three to five miles daily." (9-year-old Doberman pinscher, vegetarian for four years) — Cathy G., Honolulu, Hawaii

"She has more energy than any dog I know — people constantly ask if she's a puppy, and she's 7." (7-year-old German shepherd/hound mix, vegan for 4 1/2 years) — Lisa F., Chapel Hill, N.C.

"He has a huge appetite, is very strong, and has abundant energy. Teeth and gums, bones, muscles, and coat are all in excellent condition." (4-year-old hound, vegan for 3 1/2 years) — Amy M., Gaithersburg, Md.

"Extremely energetic, healthy, thick coat." (6-year-old terrier mix, vegetarian for four years) — Elaine J., Ewa Beach, Hawaii

"Trim and totally healthy." (8-year-old terrier mix, vegan for three years) — Robert A., Empire, Mich.

"She is very healthy and has had no health problems. Our vet says she is in excellent condition and beautiful, too!" (4 1/2-year-old German shepherd, lifelong vegetarian) — M.C.W., Roselle Park, N.J.

"He looks great and has a lot of energy, fur is beautiful, loves to run." (5-year-old mixed breed, vegan for 3 years) — Isabell S., Beverly Hills, Fla.

"A lot of energy, loves to run and play, fur is beautiful." (4 1/2-year-old shepherd mix, vegan for three years) — Isabell S., Beverly Hills, Fla.

"Very good [health]. Thick, shiny coat." (6-year-old Lhasa apso, lifelong vegetarian) — Marie B., Horsham, Pa.

"He has always been a high-energy, healthy dog." (5 1/2-year-old Gordon setter, lifelong vegetarian) — John S., Warrenton, VA

"Darlene is very active, vibrant, happy, and seems to be thriving on this diet. She looks and acts much younger than her age. Her coat is shiny and beautiful." (12-year-old shepherd mix, vegetarian for four years) — William B. and Linda B., Barto, Pa.

"Geneva is happy, lively, playful, etc. She loves this diet!" (6-year-old whippet mix, vegetarian for three years) — William B. and Linda B., Barto, Pa.

"Very healthy. Walks 45 minutes every day. Beautiful coat." (18-year-old shepherd mix, vegetarian for 13 years) — Joyce F., Los Angeles, Calif.

"Extremely healthy and active, excellent coat, perfect health." (6-year-old shepherd mix, vegetarian for five years) — Joyce F., Los Angeles, Calif.

"He is happy, healthy, and strong as a horse. He exercises in the pool all year long. I'm waiting for him to slow down a little — still plays like a puppy. I think that this dog will outlive me. He runs around the house and yard all day long." (6-year-old Staffordshire bull terrier, vegan for two years, vegetarian for three years) — Sue S., Houston, Texas

"He constantly had skin problems. ... I just began a vegetarian diet. ... For the past 10 years, his skin has been a lot better." (12-year-old Shih Tzu, vegan for 10 years) — Doreen M., Agawam, Mass.

"Very active, extremely intelligent, playful, ... very strong, obedient." (6-month-old collie/shepherd mix, lifelong vegetarian) — Michelle I., Willard, Wis.

"Looks wonderful — loves his food — great disposition." (4 1/2-year-old golden retriever, vegetarian for four years) — Barbara K., Stamford, Conn.

"Glowing — minimal fleas — teeth clean — smells good. We go outside every day — on weekends, eight miles." (7-year-old collie/German shepherd, vegan for 3 1/2 years) — Lorelei D., Houston, Texas

"Great health, shiny coat, absolutely no tartar on teeth." (11-year-old Labrador retriever/German shepherd mix, vegan for five years, vegetarian for two years) — Susan F. and Jeremy O., Clinton, Wash.

"Great health." (6-year-old mixed breed, vegan for 4 years) — Susan F. and Jeremy O., Clinton, Wash.

"Excellent health." (5-year-old miniature spaniel mix, vegan for four years) — Susan F. and Jeremy O., Clinton, Wash.

"All our four dogs are happy, energetic, have clean teeth, and bright, shining coats!" (9-year-old toy poodle, two 5-year-old cocker spaniels, and 2-year-old German shorthair pointer/hound mix, all vegetarian for five years or life) — Tom and Lorraine T., Rockport, Maine

"He is the healthiest animal that I have ever had and the smartest." (2 1/2-year-old beagle/dachshund mix, lifelong vegan) — Carol S., Statesville, N.C.

"Walks with me 2 1/2 miles a day and shows no sign of slowing down." (14-year-old pointer mix, vegan for eight years) — Barbara B., Concord, N.H.

"My dogs are healthy with beautiful fur coats. They are alert and haven't 'suffered' at all." (9-year-old Labrador retriever/shepherd mix, vegan for seven years, and 7-year-old Doberman pinscher, vegan for five years) — Adrienne K., East Hampton, N.Y.

"Very energetic; we go on two- to three-mile walks five times a week." (9-year-old "mini," vegetarian for four years) — Joy M., San Jose, Calif.

"He is in very good health. His veterinarian says his health belies his age. He is extremely active." (9-year-old wire fox terrier, vegan for six years) — Lorraine M., Manchester, Conn.

"My dogs have no fleas (quite a miracle in Florida) and beautiful skin and coats (my vet said they are the only Bichons he has ever seen that did not have skin problems or allergies), very healthy, alert, energetic, good appetite, etc." — Diane D., Sarasota, Fla.

"Her overall health is very good. Life is a continually joyous adventure for her and she welcomes it with zest." (6 1/2-year-old Komondor, vegetarian for three years) — Evelyn E., Alendale, Ariz.

"Excellent health, acts like a puppy. Shiny coat, good-natured." (10-year-old Alaskan husky/wolf, lifelong vegetarian) — Casper V., Mansfield, Ohio

"Excellent health." (4-year-old Shetland sheepdog, vegetarian for 3 1/2 years) — Jan L., Austin, Texas

"Superb coat, energy, no fleas." (8-year-old golden retriever, vegan for two years, vegetarian for six years) — Richard B., Eugene, Ore.

"Unlimited endurance, great coat, no fleas, lean, extremely strong, fast — a superdog ... a great representative of the vegan lifestyle." (1-year-old golden retriever, lifelong vegan) — Richard B., Eugene, Ore.

"Was quite active to right near the end." (12 1/2-year-old golden retriever, lifelong vegetarian) — Richard B., Eugene, Ore.

"Strong, hearty dog, great coat, fleas don't trouble her. She's still chasing balls, has a good appetite, and a good stool." (13-year-old shepherd mix, vegan for six years, vegetarian for six years) — Karen P., Wheaton, Md.

"Very energetic, great disposition, wonderful coat, good stool, great appetite." (6-year-old cocker spaniel, vegan for five years) — Karen P., Wheaton, Md.