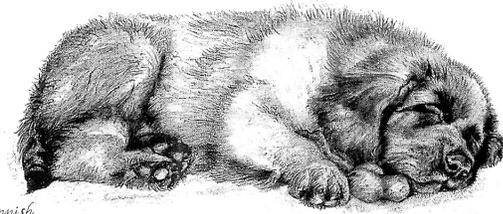


Leonberger Club of America
Health Research and
Education Committee



LEO Watch

THE NEWSLETTER FOR HEALTHY LEOS
VOLUME 2, SPRING 2002

From:
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Summary of the 2000 Health Survey Findings

Mission statement of the HREC: The purpose of the Health Research and Education Committee is to identify health concerns, determine their impact on the breed, research those problems, make recommendations to the Breeding Committee and to the Board, and to educate the Membership.

OVERVIEW OF RESULTS OF THE LCA HEALTH SURVEY - 2000

The Health, Research, and Education Committee of the LCA conducted the second health survey in 2000. A complete report on the 1995 health survey can be found in the LeoLetter Volume 12, Number 3, 1996.

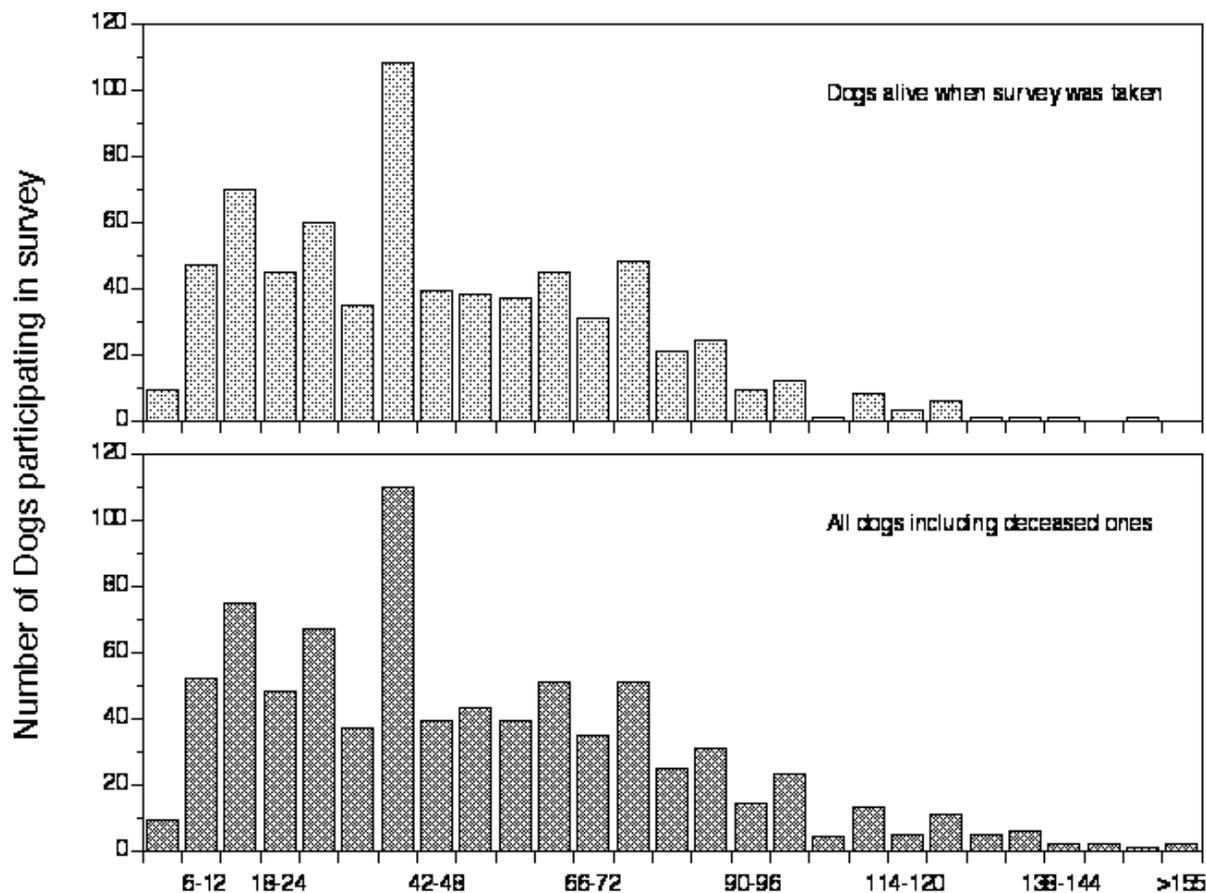
In the 2000 survey we received **803** completed reports of 2051 registered dogs at that time, representing **nearly 40%** of the total number of registered dogs. Excluding older dogs with LCA numbers below 500, we had 694 (45%) surveys returned. We are happy with this very good feedback! The national return rate for canine health surveys is 7-8% and the return rate of the Spinone Club of America is 13% (the Spinone Club has just a little smaller population size than the Leonberger Club). We had one litter with a return rate of 100% (v. Stutensee I-litter, 9 out of 9) and 20 litters with a return rate of 75% or more. Congratulations! Other litters had only one or two returned. We hope breeders will continue to encourage their puppy buyers to participate in this endeavor. Below is the list of litters with at least 50% participation and at least 4 surveys returned. In addition, the five top kennels of returned surveys are listed.

Kennel		Litter	Surveys returned	Litter size	%	Kennels with best participation	Individual litters
v. Stutensee	AF	I	9	9	100	v. Stutensee	C, E, I, J,
Forever Green's	AV	C	8	9	89	Forerver Green	B, C, E
von Jagen	AY	A	7	8	88	v. Gemütlich Den	A,B,C
Dragonslair	CE	B	7	8	88	Pointe aux Pins	D, E
Forever Green's	AV	E	6	7	86	v. Drevas	A, B
Cherrywoods	BC	F	6	7	86		
Pointe aux Pins	BE	D	5	6	83		
Leo Hunde von Shambis	BI	C	5	6	83		
Vanguard's	DE	A	9	11	82		
von Alpanse	BR	E	8	10	80		
von Klingelberg	AC	F	4	5	80		
von Stutensee	AF	J	4	5	80		
vom Paradies Tal	DW	A	4	5	80		
von der Heckenrose	AE	O	7	9	78		
von Drevas	BZ	A	9	12	75		
Pointe aux Pins	BE	E	6	8	75		
of Gemutlich Den	BT	A	6	8	75		
of Mandy's Lair	CQ	B	6	8	75		
Mountain Vista's	DF	A	6	8	75		
von Stutensee	AF	E	8	11	73		
von Gemutlich Den	BT	C	8	11	73		
Forever Green's	AV	B	5	7	71		
Bobev's	CO	A	8	12	67		
von Seeloewen	DD	A	6	9	67		
von Stutensee	AF	C	7	11	64		
of Emerald City	CP	B	7	11	64		
Waggsworth	AM	C	5	8	63		
von Drevas	BZ	B	6	10	60		
High Pointe's	CN	C	6	10	60		
Maple Grove's	DH	A	6	10	60		
vom Weidenbaum	AN	A	7	12	58		
of Cochise	BA	I	7	12	58		
of Gemuetlich Den	BT	B	6	11	55		
Whistler's Woods	CS	A	6	11	55		
Nunapik's	DI	A	7	13	54		
of North Star	BV	A	6	12	50		

Survey Population Data

Average age of all dogs reported was 48 months with 63% being 5 years and younger and 11% of the dogs surveyed 12 months and younger. In comparison, at the 1995 survey 80% of the dogs surveyed were 5 years and younger and 23% 12 months and younger. Therefore, the population of the 2000 survey is a little older than that of the first survey. This allows us to more accurately assess what health problems Leonbergers experience later in life and allows us to better estimate the expected life-span of our dogs, which is still far too short.

The following graphs show the age distribution of the dogs entered in the survey. The dogs are grouped in six months intervals. The spike of three year old dogs correlates to a higher number of dogs registered three years ago.



Health as Viewed by Leonberger Owners

In general, Leonberger owners felt that their dogs are very healthy!! This really speaks for itself and we are very happy to announce it, too!

- ❖ 63% described their dogs health as excellent
- ❖ 25% as very good
- ❖ 7.5% as good
- ❖ only 2.5% as fair
- ❖ only 2% as poor.

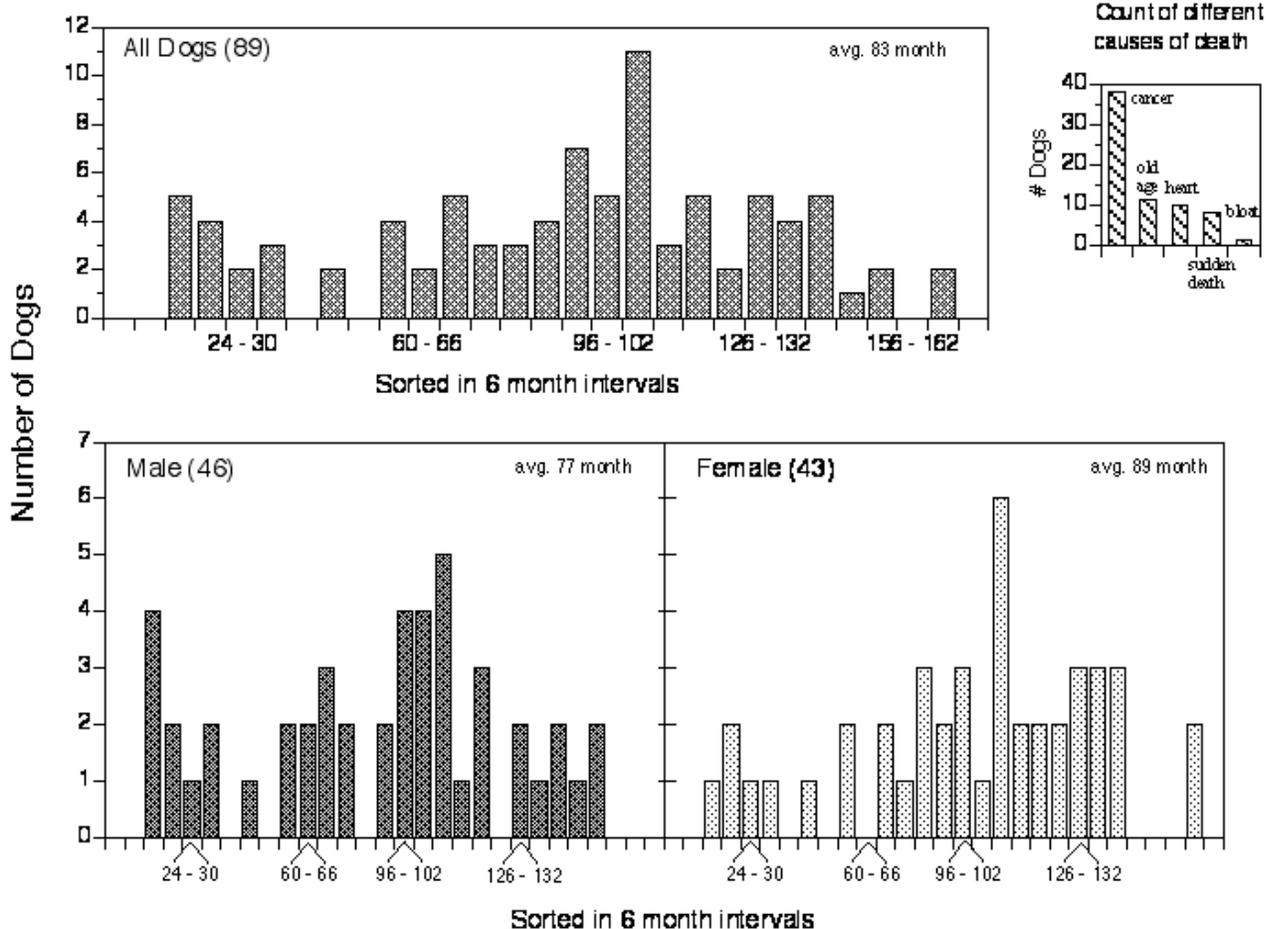
Keep in mind though, that the health of a dog can be excellent until the day of his or her death, regardless of whether this is at two years of age or 11 years of age.

Longevity - Cause of Death

Out of the 802 dogs surveyed, 89 dogs (46 males and 43 females) were deceased. Of those, six dogs died in accidents (drowning, car accident etc.), two dogs were lost, and three dogs were euthanized because of aggressive behavior.

Excluding these non health related deaths, the average life span of the Leonberger was 83 months (almost 7 years). Males lived on average 77 months (6.5 years) and females 89 months (7.5 years). To set these numbers in context with another breed, we looked at the Berner. The Bernese Mountain Dog Club of America (BMDCA) conducted a health survey in 2000. The Berner population is much larger than that of the Leonberger, with 2474 Berner registered in 2001 versus 220 Leonberger. The Berner health study encompassed 1322 returned surveys including 261 deceased dogs with an average life span of 85.4 months, 78 months for males and 92 months for females. The Bernese Mountain Dog is smaller than the Leonberger and one would expect a somewhat longer life span. Nevertheless, the BMDCA felt that the overall lifespan of the Berner is too short, as we feel **seven years is too short a life span for our Leonbergers**.

Age of Death



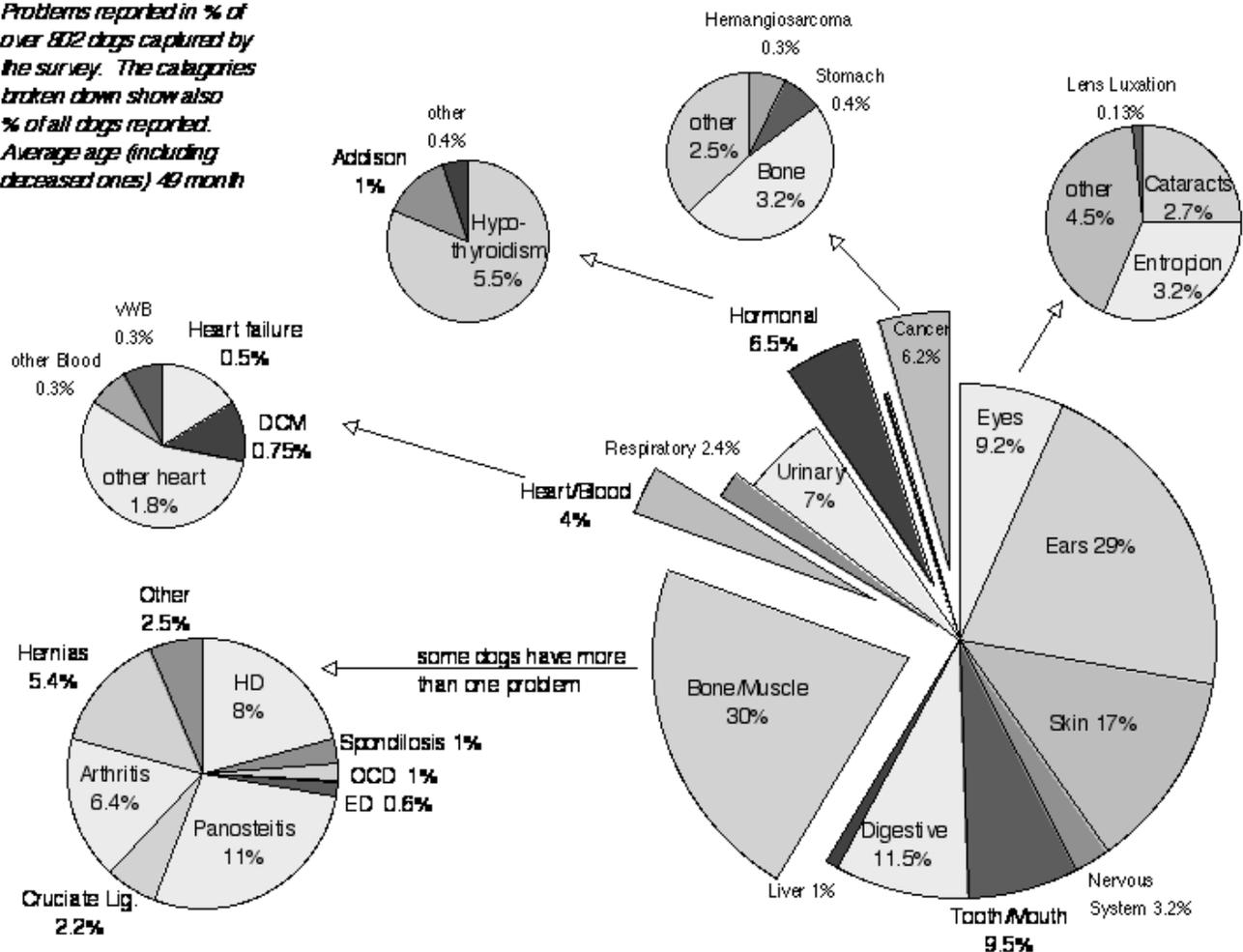
The most predominant killer in the Leonberger is cancer (37 dogs, 37%) followed by old age (12 dogs, 12%), heart failure (9 dogs, 9%), and sudden death (8 dogs, 8%). Average age of cancer diagnosis is 80 months and average age of death due to cancer is 85 months. Bloat is a very rare cause of death with only one reported incidence. There is a distinct group of young Leonbergers that died under 3 years of age dominated by 16 males but only 8 females. A few cases were not health related with four dogs dying of accidental deaths and the three males being euthanized for aggression. Three young dogs died of heart problems and two dogs died of cancer.

In general, males tend to have a lower life expectancy than females. There is a higher risk of males dying very young but **once a dog, male or female, reaches the age of four, its chances to live up to 10 years increases considerably**. Nevertheless, it would be great if we could work together toward increasing the overall life span of our Leonbergers so that we can enjoy their companionship over more years.

Different Health Problems Reported in the Leonberger

We divided the health issues into 14 major groups with detailed information in every group. Dogs can have multiple problems so the sum of all problems is more than 100%. The same is true within a group as well (i.e. one dog might have had panosteitis as well as arthritis, so the sum of all Bone/Muscle incidences might be more than its fraction of the big pie).

Problems reported in % of over 802 dogs captured by the survey. The categories broken down show also % of all dogs reported. Average age (including deceased ones) 49 month



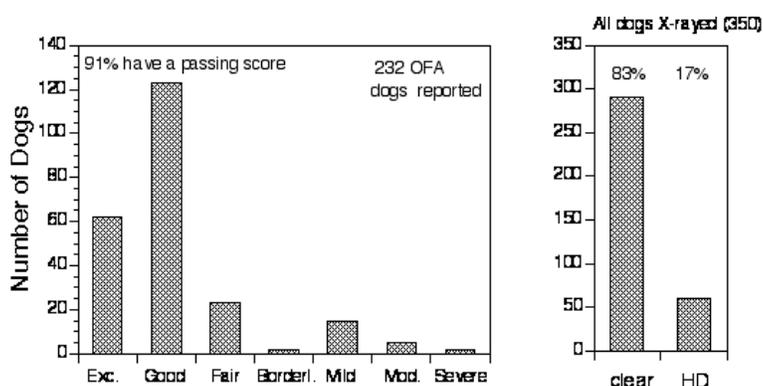
The **Ears and the Bone/Muscle group** included the most incidences reported. The relative number of dogs with problems in **Ears increased from 17% to 29% since the 1995 survey**. Ear problems include reports of one-time ear infections up to chronic problems over the life time of the dog (*the next LeoWatch will report on individual problems in more detail*).

The number of dogs with **Bone/Muscle problems increased from 19% to 30% since the 1995 survey**. Problems Bone/Muscle subgroup is dominated by Panosteitis with 11% (12% in 1995) followed by hip-dysplasia with 8% (12% in 1995). One has to use caution when interpreting % HD data. In the survey, **232 dogs were reported as OFA examined with 9% diagnosed with HD**. If one looks at **all dogs** that were X-rayed with and without OFA evaluation (PennHip and Vet diagnosis included), **17% reported a diagnosis of HD**. OFA data from 1974 to 2000 reported **14.6%** of evaluated X-rays as displastic. The actual number of HD affected dogs in our population lies somewhere **between 9 and 17%**. Dogs with symptoms are more likely to be X-rayed and therefore disproportionately increase the number of all HD cases reported. On the other hand, X-rays with indication of HD are less likely to be sent to the OFA, and therefore the number of OFA certified HD cases is likely to be less than the actual percentage of the population. PennHip results would give us a more accurate picture because all X-rays taken have to be sent in but the sample size is much smaller than all X-rays combined. Below is a comparison of OFA and PennHip results in the same dogs, OFA results of dogs in the survey vet diagnosed hip X-rays, as well as a comparison of the official OFA results from 1974-2000 of the Leonberger and three other giant breeds. The Leonberger appears to have on average better hips than the Saints and Newfs but not as good as the Pyrs.

Dogs that have been both OFA and PennHip evaluated

OFA	PennHip left	PennHip right	
Excellent	0.37	0.3	
	0.38	0.47	
	Good	0.32	0.32
		0.34	0.31
		0.36	0.34
		0.33	0.37
		0.38	0.35
0.28		0.41	
Fair	0.45	0.42	
	0.47	0.42	
	0.58	0.54	
Borderline	0.71	0.52	
	0.52	0.63	

Results from OFA examined dogs and all dogs reported as hip X-rayed



Comparative OFA Data (1974 - 2000)

Breed	# Dogs	% Excellent	HD%
Saint Bernard	1791	3.9	47
Newfoundland	9578	6.3	26.8
Leonberger	576	17.9	14.6
Pyrenees	4171	13.3	9.7

Skin problems are not life threatening, but have been reported for a large fraction of the dogs (18%). Most of these problems are allergy related with hot spots and more general skin reactions that can be quite uncomfortable for the dog. As in humans, allergic reactions to food or environment appear to be on the rise. Some of the digestive problems fall into a similar area – food intolerance can lead to chronic diarrhea. It is not clear whether there is any genetic connection and further research is necessary.

Heart problems are a lingering concern in the Leonberger. There are a total of 22 dogs that were reported with some sort of heart problem ranging from heart murmurs (6), arrhythmia (3), congenital (1) to dilated cardiomyopathy (6). Very little info was given about each condition so it is difficult to say anything specific about the first 3 conditions. Of the 6 DCM cases, 4 were closely related. This strongly suggests a genetic pattern as determined in other breeds like the Doberman. Unfortunately, we do not have enough cases to even guess at the mode of inheritance. It would be very helpful, if we could get more dogs examined by specialists (preferably cardiologists) to obtain a baseline for the breed as well as identify undetected problems early on.

We also have an increase in the number of **eye problems** reported in our population of Leos, increasing from 5.5 to 9.5 percent. **3.2 %** of our dogs have diagnosed **entropion** but what is more concerning is that **2.7% of our dogs have cataracts**.

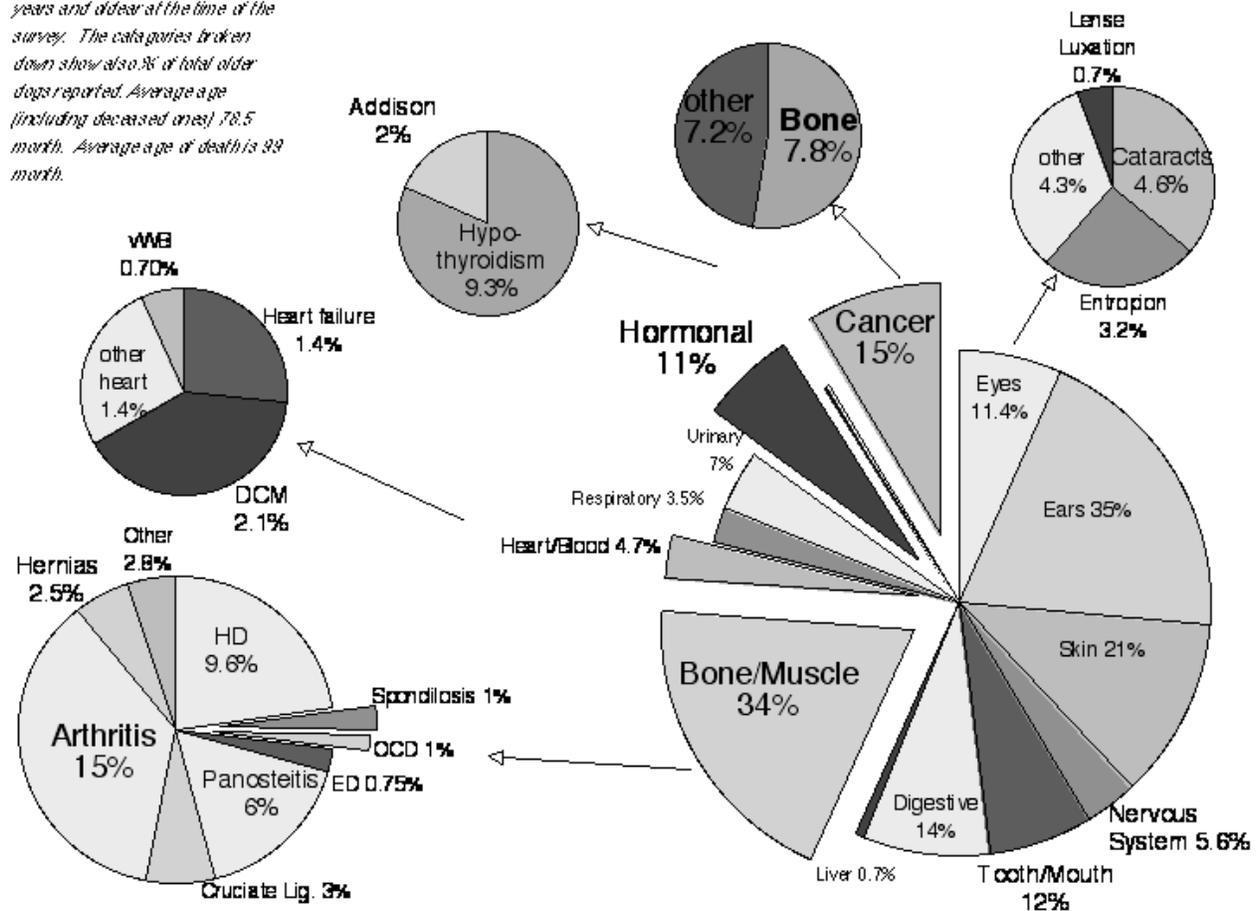
One health problem that has plagued all breeds and is threatening to become even more prominent in the Leonberger is **Hypothyroidism (5.5%)**. Even though it is not a death sentence and relatively easy to treat, we need to get as many Leos tested and reported as possible. Breeders should never mate two dogs that are hypothyroid. Because most cases of hypothyroidism are autoimmune in origin, the lack of thyroid disease cannot be confirmed based on T4 levels alone.

Screening must include tests for thyroid antibodies following the OFA test schedule (initially every year, later in life every other year). Go to: <http://www.offa.org/ofathy.html> for more information

A Look at the Older Dogs in the Population

Above we gave an overview of the population as a whole. Many of the returned surveys were of young dogs that have not reached the middle age yet, when many of the health concerns occur. Therefore we have extracted all dogs that are at least five years and older (279) when the survey was completed in order to get a better picture of what a Leonberger has to expect when he/she gets older.

Data reported in 3% of 279 dogs of 5 years and older at the time of the survey. The categories broken down show also 3% of total older dogs reported. Average age (including deceased ones) 78.5 months. Average age of death is 89 months.



The main differences between the older dogs and the whole population can be seen in problems with the nervous system, higher relative incidences of tooth and mouth problems, bone/muscle, hormonal and cancer cases. Some of these changes are easily explained by age itself. For example one would expect more cases of arthritis and cancer in older dogs. The marked increase in reports of cataract (some of which are still juvenile cataract) and hypothyroidism should keep us alert that these problems might be more widely distributed than it appears just looking at the whole population. Changes in other areas appear to be more puzzling. For example, a higher incidence of tooth/mouth problems and ear problems does not seem to be age related. The reduction in panosteitis and hernias might have something to do with the memory of dog owners – some might not remember a hernia or a short bout of pano if it was 5 years ago. In addition, panosteitis has become more known as a problem in larger dogs therefore more cases might be diagnosed than before.

The Health Committee

The Health Committee works closely together with the Breeding Committee and based on the results of this study, changes in the Breeding Regulations have been proposed to the board.

There will be a follow up LeoWatch coming out later this year with more detailed information on specific problems and recommendations on how to respond to the findings.

The HREC wants to thank every Leonberger owner and breeder who sent in the Health Survey of their dog/dogs. We are sure this and follow up Health Surveys will help over the years to keep the Leonberger Breed as stated in the Standard and to have our Leos live longer and healthier.

If you have any information or breed specific questions concerning health issues in your Leonberger, please contact the member of the Health Committee who is assigned to that problem. In order to keep track of the development of the different health concerns, we need to update our data base constantly. Again, thank you so much for your time and effort which will help to make and keep our Leonbergers a healthy breed.

Health Committee Contact Persons:

Heart Problems	Nancy Abel	510-793-5014 Njabel@aol.com
Addison's Disease	Mary Decher	425-885-1305 425-885-0602 (fax) rmdecher@hotmail.com
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Cancer	Ute Jung	970-493-6978 970-493-2648 (work and fax)
Hip/Elbow Dysplasia Perianal Fistulas	Carol Lewis	770-867-0701 770-307-5781 (fax) SassyLeonberger@aol.com
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Chairperson Health Survey	Waltraut Zieher	806-828-5696 806-828-1885 (fax) walsleos@sprynet.com

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All research of the Health Committee is funded through the Leonberger Health Foundation by private donations, grants and matching funds. If you would like to be a partner in our efforts to breed healthier Leonbergers, through a donation, please contact our fundraiser Carole Goldberg or the treasurer of the Leonberger Health Foundation, Ann Duyster (941-949-4403).

Both Health Surveys in 1995 and 2000, as well as this Leo Watch newsletter are paid for by the LCA. Costs of copying and mailing of all other work is paid for by Health Committee members.

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