

Report from the Kennel Club/
British Small Animal Veterinary Association
Scientific Committee

Summary results of the
Purebred Dog Health Survey
for the Norwegian Elkhound breed

Warning: The results of this survey and particularly the breed-specific analyses should be interpreted with caution. The overall response rate was only 24% with breed-specific response rates from 4.5% to 64.7%.

The Norwegian Elkhound breed

A total of 268 forms were sent out and 71 were returned, representing 143 live dogs. This breed had a 26.5% response rate (71/268) and it represented 0.52% of all returns (71/13,741).

Mortality data

A total of 71 deaths were reported and this represents 0.45% of all deaths reported in the survey (71/15,881). The median age at death for the Norwegian Elkhound breed was 13 years and 2 months (min = 3 months, max = 17 years and 2 months) and this was higher than the overall median of 11 years and 3 months (Figure 1). Table 1 shows the causes of death for the Norwegian Elkhound breed. Age at death is presented for the most common causes of death (Figure 2).

Table 1. Causes of death by organ system/category for the Norwegian Elkhound breed.

Cause of death	N	%	Most common specific causes in descending order
1 Cancer	23	32.4	Spleen (type unspecified); mammary (unspecified)
2 Old age	16	22.5	Old age
3 Cardiac	8	11.3	Heart failure; heart attack
4 Combinations	5	7.0	Seizures; various
5 Urologic	4	5.6	Kidney failure (chronic > acute)
6 Hepatic	3	4.2	Liver failure
7 Endocrine	2	2.8	Cushings
8 Musculoskeletal	2	2.8	Arthritis
9 Respiratory	2	2.8	Choked; respiratory disease (unspecified)
10 Behaviour	1	1.4	Aggression
11 Cerebral vascular	1	1.4	Stroke or cerebral vascular accident
12 Dermatologic	1	1.4	Sebaceous cysts
13 Neurologic	1	1.4	Seizures
14 Other	1	1.4	Uncodeable
15 Reproductive	1	1.4	Died during whelping
Total	71	100.0	

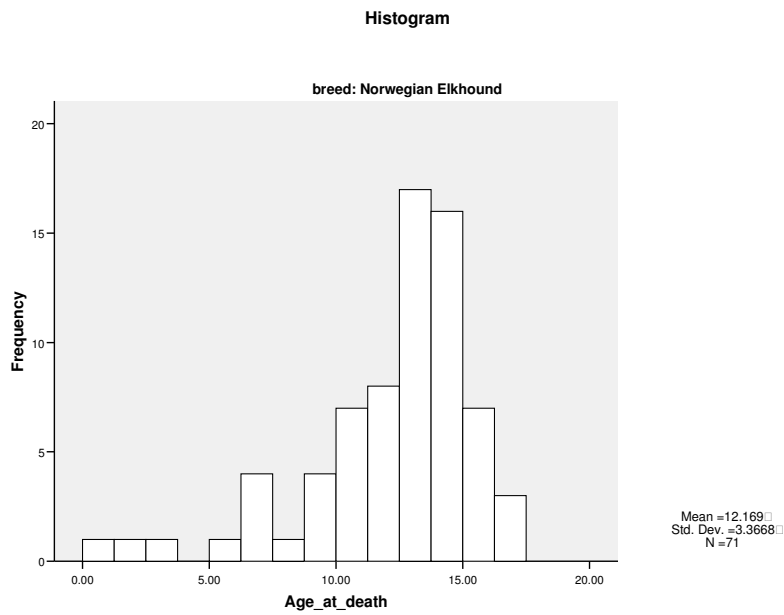


Figure 1. Histogram showing the frequency (as number of dogs) of age at death (in years) for the 71 Norwegian Elkhound deaths with age at death reported.

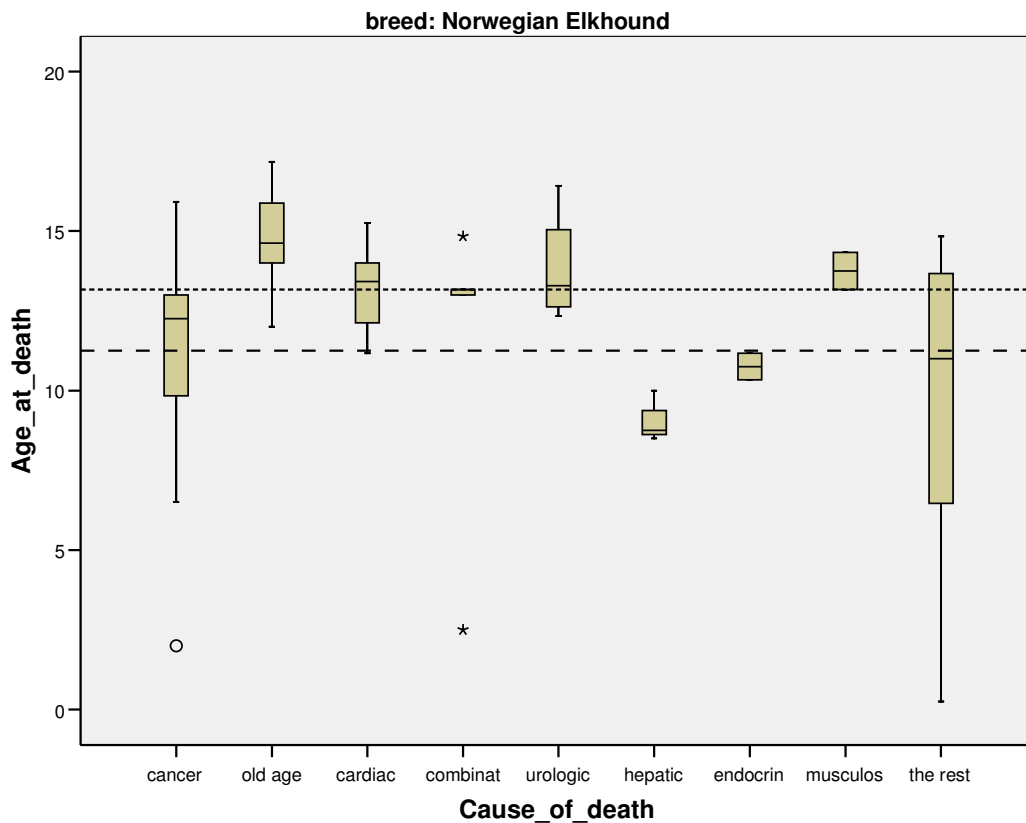


Figure 2. Box and whisker plot of age at death in years for the most common causes of death in the Norwegian Elkhound breed (N=71). The dashed line (---) is the overall median age at death for all dogs in the survey and the dotted line (----) is the overall median age of death for the Norwegian Elkhound breed. The solid line within each grey box represents the median age at death from the condition.

Morbidity data

The median current age of the 143 live dogs with a reported age was 5 years and 4 months (min=3 months, max=15 years and 10 months, Figure 3). Health information was reported for 143 live dogs of which 89 (62%) were healthy and 54 (38%) had at least one reported health condition, resulting in a total of 94 reported conditions with a median of 1 condition/dog (min=1, max=7).

The median current age of all healthy dogs with a reported age (N=89) was 3 years and 5 months (min=3 months, max=15 years and 6 months). The distribution of gender and neuter status is shown in Table 2.

The median current age of all dogs with one or more disease conditions and a reported age (N=53) was 7 years and 12 months (min=1 year and 3 months, max=15 years and 10 months). The median age at diagnosis for all disease occurrences with a reported age at diagnosis (N=92) was 3 years and 6 months (min= 3 months, max= 15 years and 9 months, Figure 4). Table 3 shows the disease conditions for the Norwegian Elkhound breed. Age at diagnosis is presented for the most common disease conditions (Figure 5).

Table 2. Distribution of gender and neuter status for the 143 Norwegian Elkhound breed with reported gender and neuter status.

Gender	Neuter status		Totals
	Intact	Neutered	
Female	37	52	89 (62%)
Male	43	11	54 (38%)
Totals	80 (56%)	63 (44%)	143 (100%)

Significantly more females were neutered (P<0.0001).

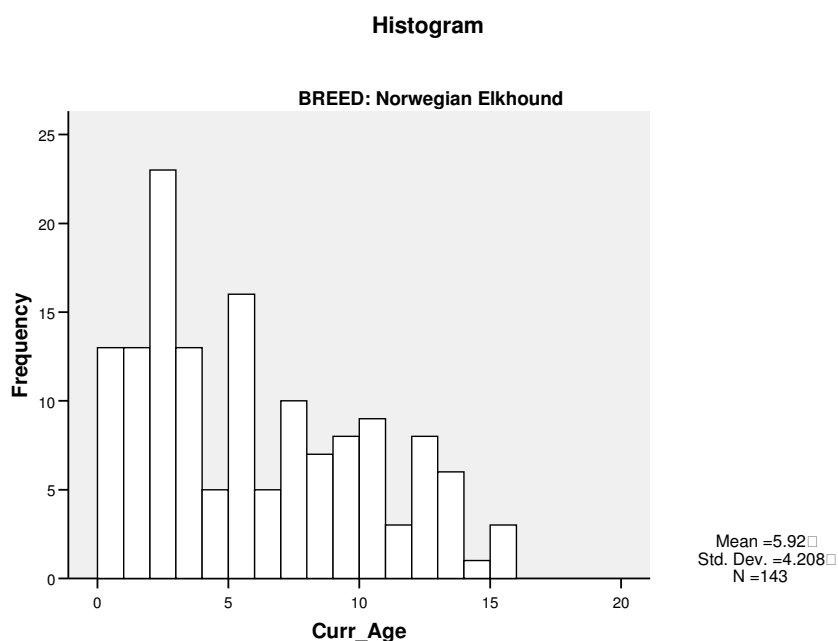


Figure 3. Histogram showing frequency of current age in years for the 143 live Norwegian Elkhound breed with age reported.

Histogram

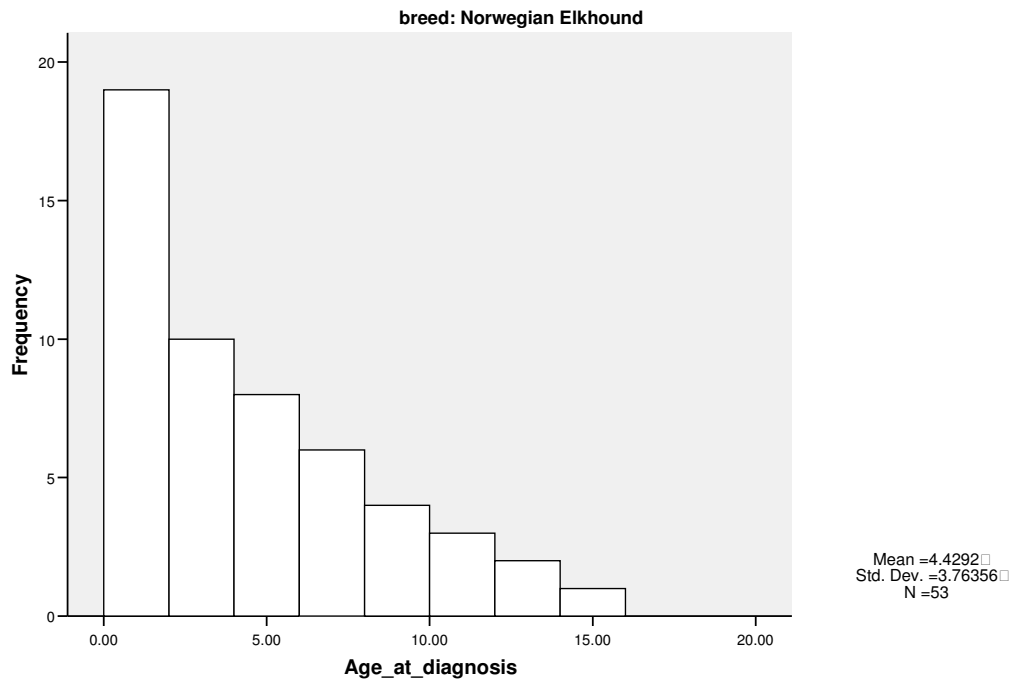


Figure 4. Histogram showing frequency of age at diagnosis for the 53 Norwegian Elkhound breed with one or more disease conditions, using the youngest age at which a disease condition was first reported for those dogs with more than one disease condition or episode.

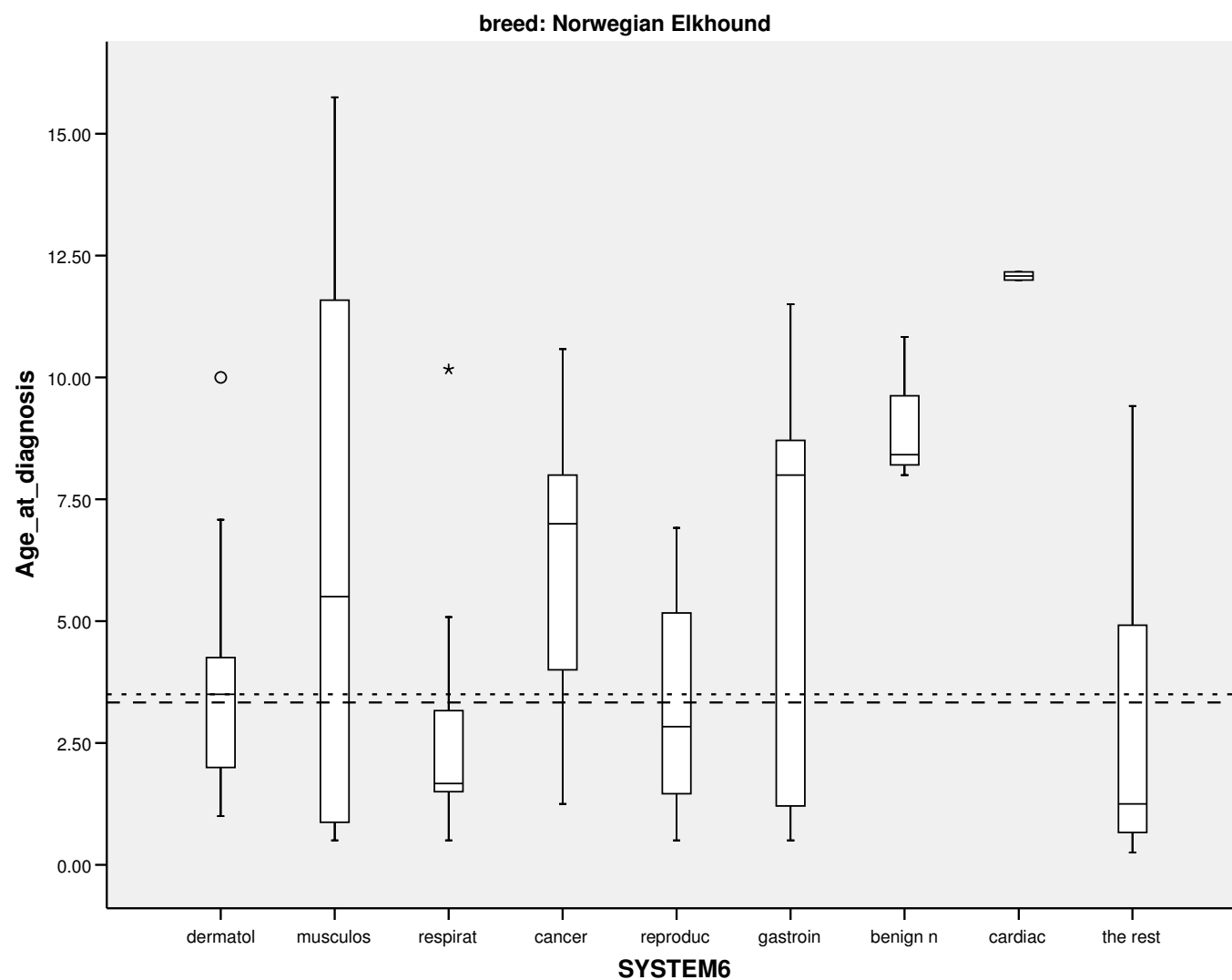


Figure 5. Box and whisker plot of age at diagnosis in years for the most common disease conditions in descending order for the Norwegian Elkhound breed (N=53 dogs with 92 conditions with age reported). The dashed line (---) is the overall median age at diagnosis for all dogs in the survey and the dotted line (----) is the overall median age at diagnosis for the Norwegian Elkhound breed. The solid line within each grey box represents the median age at diagnosis from the condition.

Table 3. Disease conditions by organ system/category for the Norwegian Elkhound breed.

Disease condition	All conditions		Most common specific conditions in descending order
	N	%	
1 Dermatologic	25	26.6	Sebaceous cysts; mites (cheyletiella>unspecified); recurrent pyoderma; dermatitis
2 Musculoskeletal	11	11.7	Arthritis; patellar luxation; stuff joints; lameness (unspecified); panosteitis
3 Respiratory	11	11.7	Kennel cough; long soft palate; noisy breathing
4 Cancer	9	9.6	Unspecified (skin); carcinoma (mammary); lymphoma (mammary); plasma cell tumour
5 Reproductive	8	8.5	Pyometra; difficulty whelping (unspecified); fading puppy; false pregnancy; vaginitis
6 Gastrointestinal	7	7.4	Diarrhoea; vomiting; campylobacter; colitis; pancreatitis
7 Ocular	4	4.3	Cataracts; ectopic cilia; distichiasis; glaucoma
8 Benign neoplasia	3	3.2	Lipoma
9 Immune mediated	3	3.2	Gluten-sensitive enteropathy; flea allergy; insect bite allergy
10 Urologic	3	3.2	Cystitis; incontinence
11 Cardiac	2	2.1	CHF; heart murmur (unspecified)
12 Dental	2	2.1	Retained puppy teeth; defect other than extra teeth
13 Endocrine	2	2.1	Cushing's disease; weight gain
14 Neurologic	2	2.1	IVDD (lumbar); seizures
15 Trauma	2	2.1	Ocular (eyelid); dermalogic (skin)
Total	94	100.0	