

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

Summary results of the
Purebred Dog Health Survey
for the Australian Shepherd 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 Australian Shepherd breed

A total of 132 forms were sent out and 49 were returned, representing 104 live dogs. This breed had a 37.1 % response rate (49/132) and it represented 0.36% of all returns (49/13,741).

Mortality data

A total of 22 deaths were reported and this represents 0.14 % of all deaths reported in the survey (22/15,881). The median age at death for the Australian Shepherd breed was 9 years (min = 3 years, max = 15 years) and this was lower than the overall median of 11 years and 3 months (Figure 1). Table 1 shows the causes of death for the Australian Shepherd 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 Australian Shepherd breed.

Cause of death	No. of deaths	% of deaths	Most common specific causes in descending order
1 Cancer	7	31.8	Type unspecified
2 Combinations	4	18.2	
3 Old age	3	13.6	Old age & age combinations
4 Behaviour	1	4.5	Aggression
5 Cardiac	1	4.5	Heart failure
6 Infection	1	4.5	
7 Internal bleeding	1	4.5	
8 Neurologic	1	4.5	Epilepsy
9 Reproductive	1	4.5	Pyometra
10 Respiratory	1	4.5	Pneumonia
11 Septicaemia	1	4.5	
Total	22	100.0	

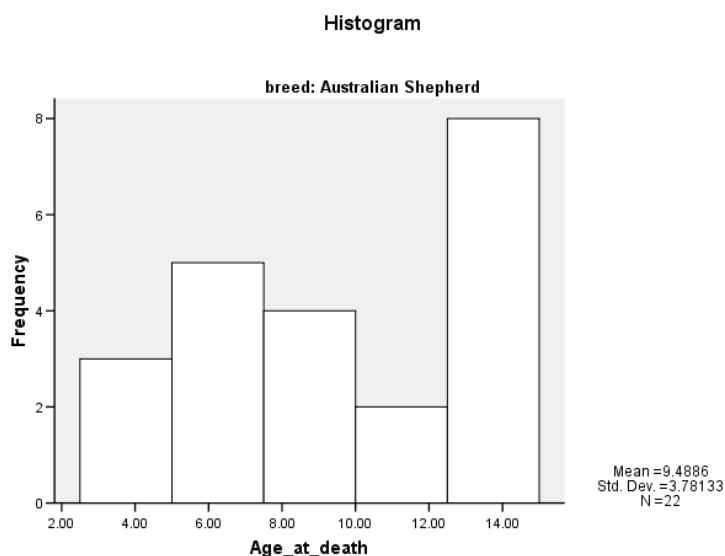


Figure 1. Histogram showing the frequency (as number of dogs) of age at death (in years) for the 22 Australian Shepherd deaths with age at death reported.

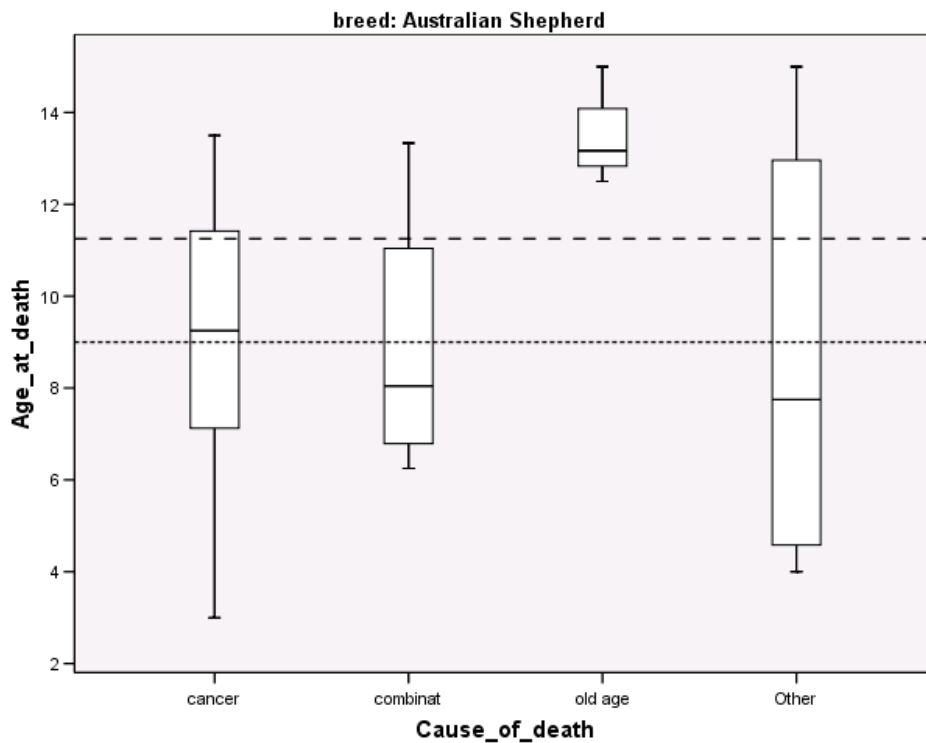


Figure 2. Box and whisker plot of age at death in years for the most common causes of death in the Australian Shepherd breed (N=22). The dashed line (---) is the overall median age at death for all dogs in the survey and the dotted line (----) is the overall median age of death for the Australian Shepherd 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 104 live dogs with a reported age was 4 years and 6 months (min=4 months, max=13 years and 8 months, Figure 3). Health information was reported for 104 live dogs of which 77 (74%) were healthy and 27 (26%) had at least one reported health condition, resulting in a total of 48 reported conditions with a median of 1 condition/dog (min=1, max=5).

The median current age of all healthy dogs with a reported age (N=77) was 3 years and 3 months (min=4 months, max=13 years and 8 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=27) was 7 years (min=7 months, max=13 years and 7 months). The median age at diagnosis for all disease occurrences with a reported age at diagnosis (N=47) was 2 years and 7 months (min= 3 months, max= 12 years, Figure 4). Table 3 shows the disease conditions for the Australian Shepherd breed. Age at diagnosis is presented for the most common disease conditions (Figure 5).

Table 2. Distribution of gender and neuter status for 104 the Australian Shepherd breed with reported gender and neuter status.

Gender	Neuter status		Totals
	Intact	Neutered	
Female	32	15	47 (45%)
Male	39	18	57 (55%)
Totals	71 (68%)	33 (32%)	104 (100%)

There was no association between gender and neuter status ($P=1.0$).

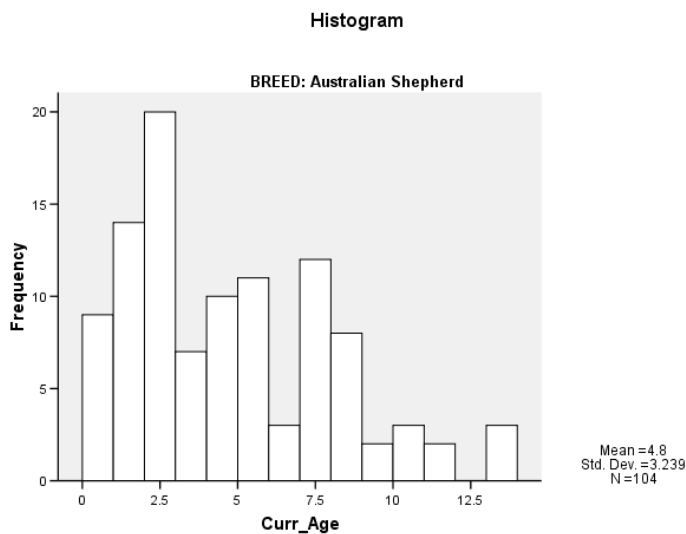


Figure 3. Histogram showing frequency of current age in years for the 104 live dogs in the Australian Shepherd breed with age reported.

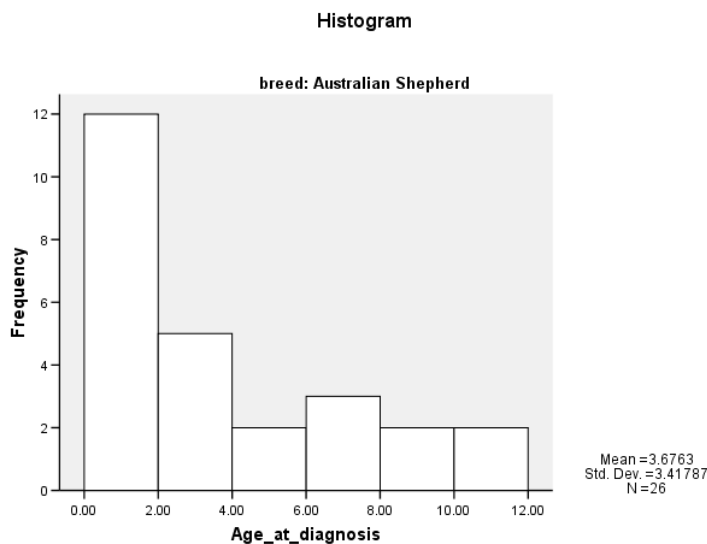


Figure 4. Histogram showing frequency of age at diagnosis for the 26 the Australian Shepherd breed with one or more disease conditions, using the youngest age at which a disease condition was first reported for those dogs with more than one disease condition or episode.

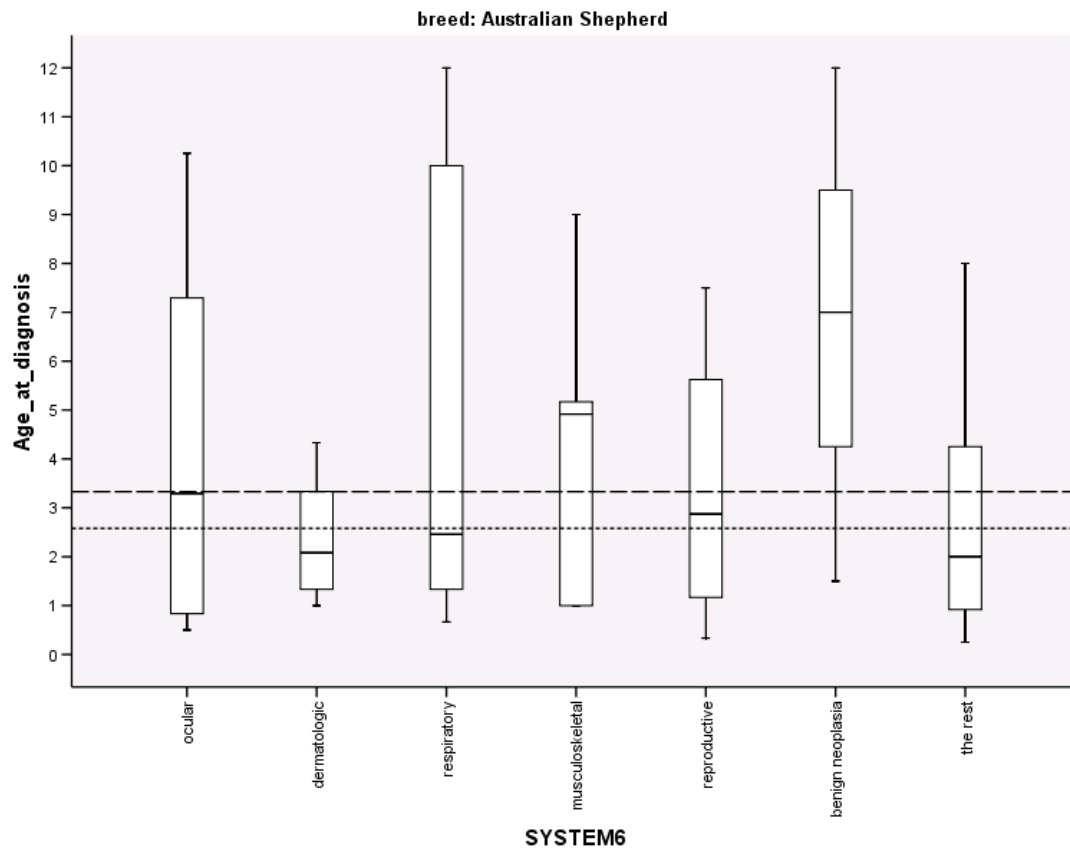


Figure 5. Box and whisker plot of age at diagnosis in years for the most common disease conditions in descending order for the Australian Shepherd breed (N=47 conditions with age reported). The dashed line (---) is the overall median age at diagnosis for all dogs in the survey and the dotted line (----) is the overall median age at diagnosis for the Australian Shepherd 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 Australian Shepherd breed.

Disease condition	All conditions		Prevalence	Most common specific conditions in descending order
	N	%	%	
1 Ocular	9	18.8	8.65	Red eye, epiphora, conjunctivitis, congenital cataract, cataract
2 Dermatologic	6	12.5	5.77	Dermatitis, pyoderma
3 Respiratory	6	12.5	5.77	Noisy breathing, laryngeal paralysis, kennel cough, bronchitis or chronic bronchitis
4 Gastrointestinal	5	10.4	4.81	IBD, gastroenteritis unspecified, foreign body obstruction, colitis, campylobacter
5 Musculoskeletal	5	10.4	4.81	Arthritis, spondylitis/spondylosis, prognathism, cruciate ligament rupture
6 Reproductive	4	8.3	3.85	Pyometra, irregular heats, false pregnancy, cryptorchid
7 Benign neoplasia	3	6.3	2.88	Lipoma, histiocytoma
8 Cardiac	2	4.2	1.92	Persistent right aortic arch, coughing
9 Endocrine	2	4.2	1.92	Hypothyroidism
10 Neurologic	2	4.2	1.92	Seizures or fits or epilepsy idiopathic
11 Cancer	1	2.1	0.96	Type unspecified
12 Immune mediated	1	2.1	0.96	Flea allergy
13 Unknown	1	2.1	0.96	Undiagnosed illness
14 Urologic	1	2.1	0.96	Cystitis (bladder infection)
Total	48	100.0	46.15	

Ocular: epiphora=overflow of tears or excessive tearing

Dermatologic: dermatitis=undiagnosed skin irritation or scratching or itchy skin or pruritis, pyoderma=skin infection

Gastrointestinal: IBD=inflammatory bowel disease, colitis=chronic large bowel diarrhea