

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

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

A total of 339 forms were sent out and 98 were returned, representing 261 live dogs. This breed had a 28.9 % response rate (98/339) and it represented 0.71% of all returns (98/13,741).

Mortality data

A total of 113 deaths were reported and this represents 0.71 % of all deaths reported in the survey (113/15,881). The median age at death for the Belgian Shepherd breed was 12 years and 6 months (min = 1 year and 6 months, max = 18 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 Belgian 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 Belgian Shepherd breed.

Cause of death	N	%	Most common specific causes in descending order
1 Cancer	26	23.0	Type unspecified; mammary - type unspecified
2 Cerebral vascular	15	13.3	Stroke or cerebral vascular accident
3 Old age	15	13.3	Old age unspecified
4 Combinations	9	8.0	
5 Neurologic	7	6.2	Seizures
6 Cardiac	6	5.3	Heart failure; heart defect unspecified; dilated cardiomyopathy
7 Trauma	6	5.3	Road traffic accident or RTA
8 Endocrine	3	2.7	Addison's disease or hypoadrenocorticism; diabetes
9 Hepatic	3	2.7	Liver failure (chronic or unspecified > acute)
10 Musculoskeletal	3	2.7	Arthritis; hip dysplasia
11 Sudden death	3	2.7	
12 Urologic	3	2.7	Kidney failure (chronic or unspecified > acute)
13 Behaviour	2	1.8	Aggression; behavioural problem
14 Perioperative	2	1.8	
15 Respiratory	2	1.8	Pneumonia; unspecified
16 Unknown	2	1.8	
17 Died	1	0.9	Natural causes
18 Gastrointestinal	1	0.9	Exocrine pancreatic insufficiency or EPI
19 Immune mediated	1	0.9	Unspecified
20 Other	1	0.9	Uncodeable
21 Poisoning	1	0.9	
22 Reproductive	1	0.9	Prostatic disease
Total	113	100.0	

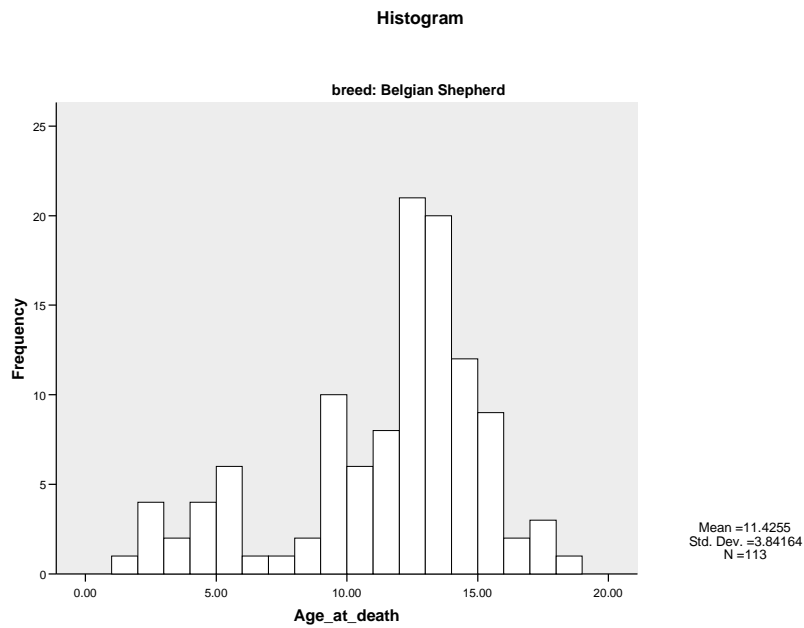


Figure 1. Histogram showing the frequency (as number of dogs) of age at death (in years) for the 113 Belgian Shepherd deaths with age at death reported.

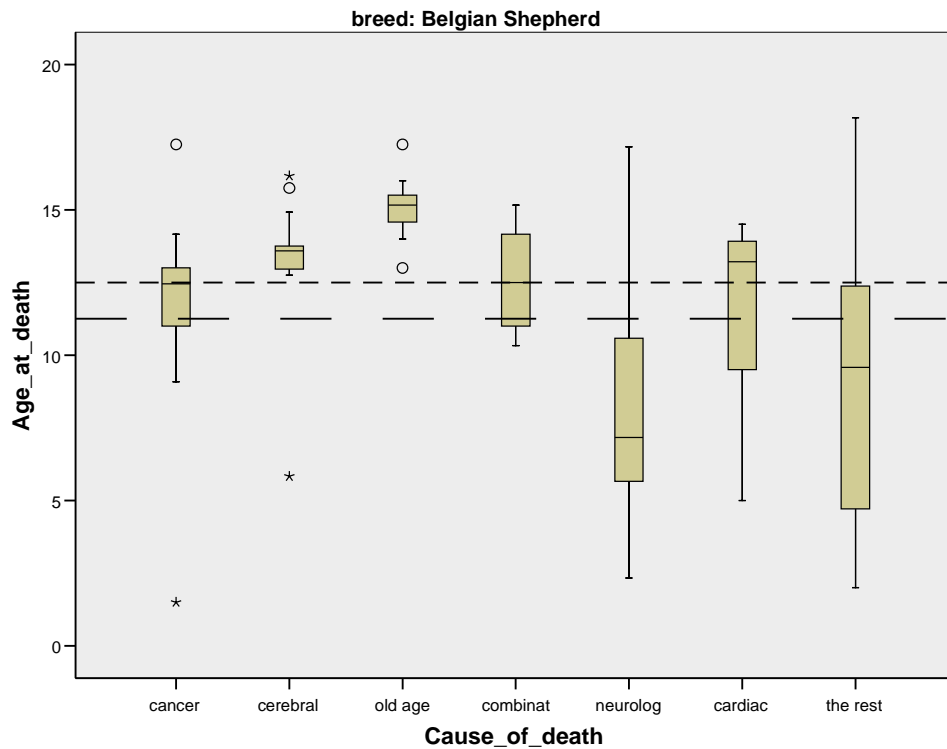


Figure 2. Box and whisker plot of age at death in years for the most common causes of death in the Belgian Shepherd breed (N=113). The dashed line (---) is the overall median age at death for all dogs in the survey and the dotted line (----) is the overall median age of death for the Belgian Shepherd 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 261 live dogs with a reported age was 5 years and 7 months (min=2 months, max=16 years and 4 months, Figure 3). Health information was reported for 261 live dogs of which 174 (67%) were healthy and 87 (33%) had at least one reported health condition, resulting in a total of 125 reported conditions with a median of 1 condition/dog (min=1, max=6).

The median current age of all healthy dogs with a reported age (N=174) was 4 years and 9 months (min=2 months, max=15 years). 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=87) was 7 years and 11 months (min=1 year and 10 months, max=15 years and 11 months). The median age at diagnosis for all disease occurrences with a reported age at diagnosis (N=123) was 3 years and 9 months (min= 1 month, max= 13 years and 3 months, Figure 4). Table 3 shows the disease conditions for the Belgian Shepherd breed. Age at diagnosis is presented for the most common disease conditions (Figure 5).

Table 2. Distribution of gender and neuter status for the 261 Belgian Shepherd breed with reported gender and neuter status.

Gender	Neuter status		Totals
	Intact	Neutered	
Female	76	84	160 (61%)
Male	61	40	101 (39%)
Totals	137 (52%)	124 (48%)	261 (100%)

Significantly more females were neutered (P=0.0422).

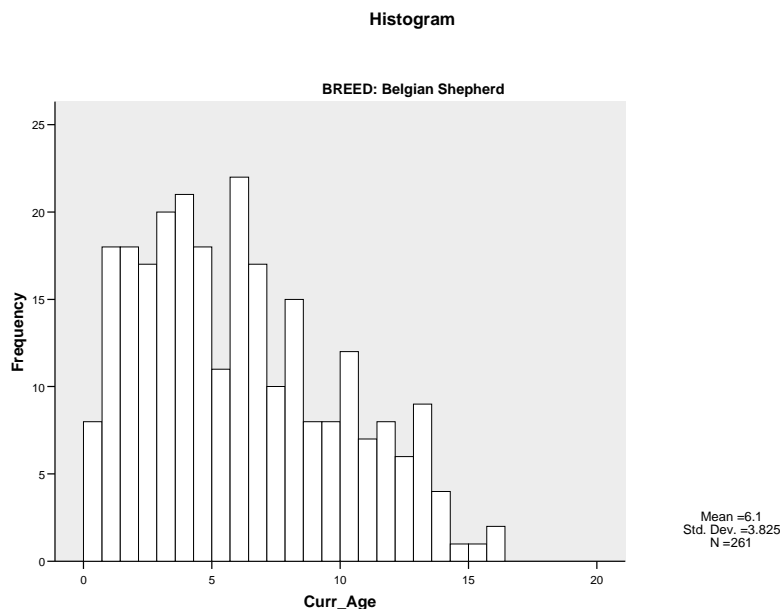


Figure 3. Histogram showing frequency of current age in years for the 261 live Belgian Shepherd breed with age reported.

Histogram

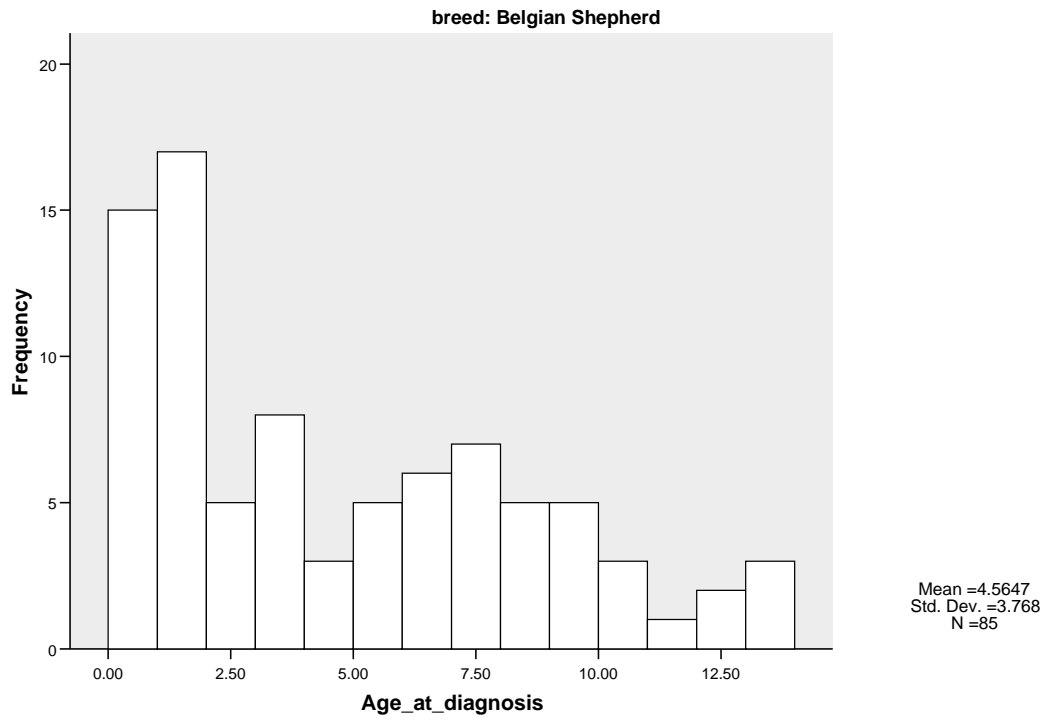


Figure 4. Histogram showing frequency of age at diagnosis for the 85 Belgian Shepherd breed with one or more disease conditions, using the youngest age at which a disease condition was first reported for those dogs with more than one disease condition or episode.

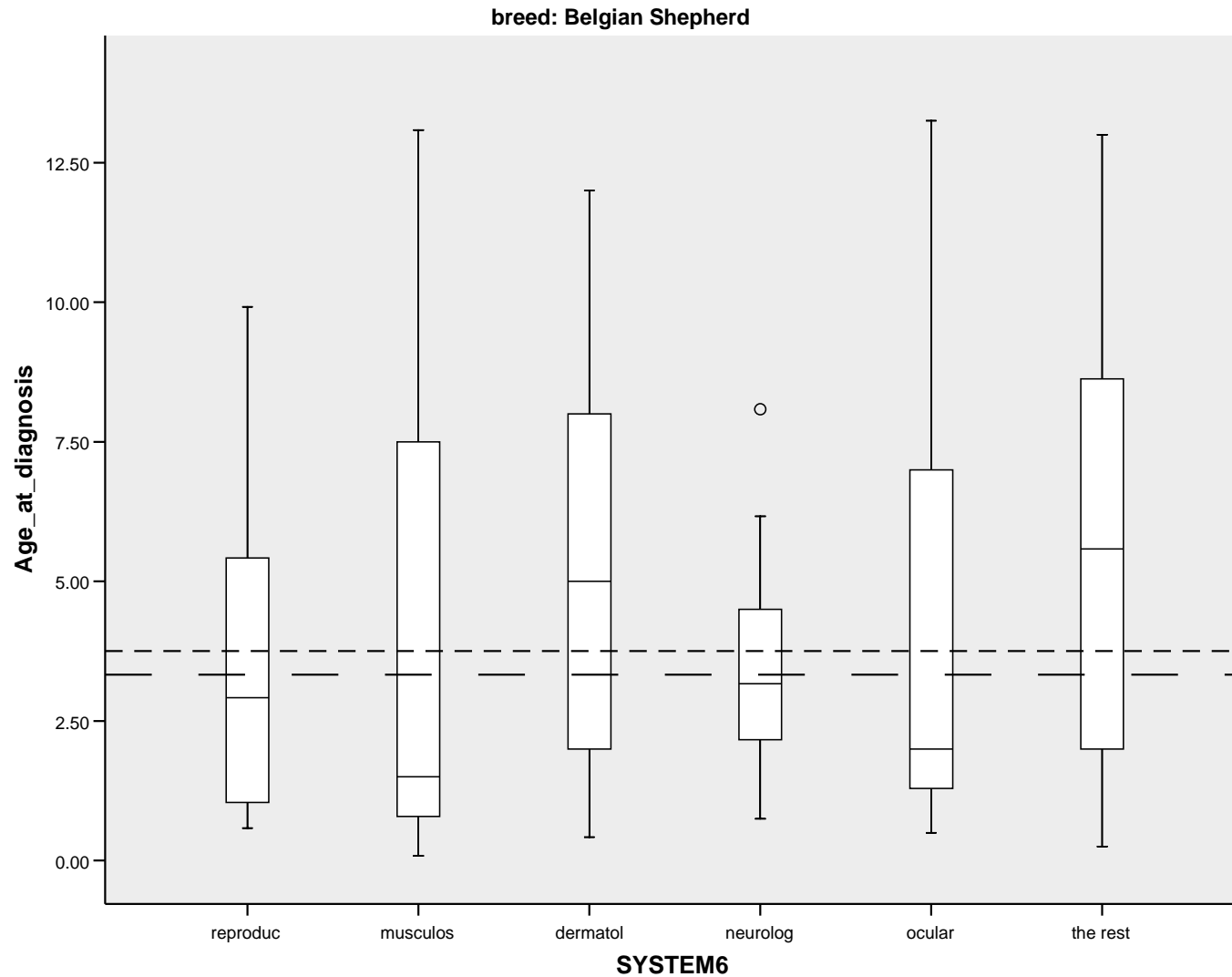


Figure 5. Box and whisker plot of age at diagnosis in years for the most common disease conditions in descending order for the Belgian Shepherd breed (N=87 dogs with 123 conditions with age reported). The dashed line (---) is the overall median age at diagnosis for all dogs in the survey and the dotted line (----) is the overall median age at diagnosis for the Belgian 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 Belgian Shepherd breed.

Disease condition	All conditions		Most common specific conditions in descending order
	N	%	
1 Reproductive	20	16.0	Pyometra; cryptorchid; false pregnancy; dystochia (uterine inertia); infertility
2 Musculoskeletal	19	15.2	Arthritis; CHD; fracture; (spine>unspecified); stiff joints
3 Dermatologic	14	11.2	Mites (unspecified>sarcoptes); pyotraumatic dermatitis; dermatitis; recurrent pyoderma
4 Neurologic	11	8.8	Seizures; epilepsy; spondylopathy
5 Ocular	11	8.8	Cataracts; conjunctivitis; blindness; pannus; red eye
6 Gastrointestinal	7	5.6	Colitis; vomiting; intussusception; megaoesophagus
7 Immune mediated	5	4.0	Food allergy; atopy; flea allergy; unspecified
8 Respiratory	5	4.0	Rhinitis; kennel cough; pneumonia
9 Other	4	3.2	Uncodeable
10 Urologic	4	3.2	Incontinence
11 Cancer	3	2.4	Lymphoma (mammary); SCC (chest); type unspecified
12 Cardiac	3	2.4	Heart murmur; heart rhythm disorder
13 Dental	3	2.4	Dental disease; gingivitis
14 Unknown	3	2.4	Undiagnosed illness
15 Aural	2	1.6	Otitis externa
16 Behaviour	2	1.6	Unspecified
17 Benign neoplasia	2	1.6	Lipoma; type unspecified
18 Cerebrovascular	2	1.6	Stroke or cerebral vascular accident
19 Endocrine	2	1.6	Hyperparathyroidism (unspecified); hypothyroidism
20 Trauma	2	1.6	Neurologic
21 Anal gland	1	0.8	Anal sacculitis
Total	125	100.0	