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

Summary results of the Purebred Dog Health Survey for Cavalier King Charles Spaniels

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%.

Cavalier King Charles Spaniels

A total of 1150 forms were sent out and 306 were returned, representing 1253 live dogs. This breed had a 26.6 % response rate (306/1150) and it represented 2.23% of all returns (306/13,741).

Mortality data

A total of 682 deaths were reported and this represents 4.29 % of all deaths reported in the survey (682/15,881). The median age at death for Cavalier King Charles Spaniels was 11 years and 5 months (min = 2 months, max = 18 years and 6 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 Cavalier King Charles Spaniels. Age at death is presented for the most common causes of death (Figure 2).

Table 1. Causes of death by organ system/category for Cavalier King Charles Spaniels.

Cause of death		N	%	Most common specific causes in descending order
1	Cardiac	292	42.8	Heart failure; MVD; heart disease unspecified
2	Cancer	84	12.3	Unspecified; throat (type unspecified); brain tumour
3	Old age	83	12.2	Old age
4	Combinations	43	6.3	
5	Urologic	31	4.5	Kidney failure; proliferative glomerulopathy; amyloidosis
6	Cerebral vascular	23	3.4	Stroke or cerebral vascular accident
7	Neurologic	19	2.8	Seizures; syringomyelia; IVDD
8	Hepatic	15	2.2	Liver failure chronic; unspecified
9	Other	15	2.2	Weakness or paresis
10	Unknown	15	2.2	
11	Reproductive	9	1.3	Pyometra; eclampsia
12	Gastrointestinal	6	0.9	Pancreatitis; colitis; haemorrhagic diarrhoea
13	Sudden death	6	0.9	
14	Trauma	6	0.9	Road traffic accident
15	Immune mediated	5	0.7	Unspecified; haemolytic anaemia
16	Collapse	4	0.6	
17	Endocrine	4	0.6	Cushings; Addisons
18	Perioperative	4	0.6	
19	Respiratory	3	0.4	Choked; respiratory failure; unspecified
20	Senility	3	0.4	
21	Portosystemic shunt (PSS)	2	0.3	
22	Musculoskeletal	2	0.3	Arthritis
23	Septicaemia	2	0.3	
24	Systemic	2	0.3	Allergy to insect bite or sting or snake bite
25	Cardiovascular	1	0.1	Unspecified
26	Infection	1	0.1	
27	Ocular	1	0.1	Blindness
28	Poisoning	1	0.1	
	Total	682	100.0	

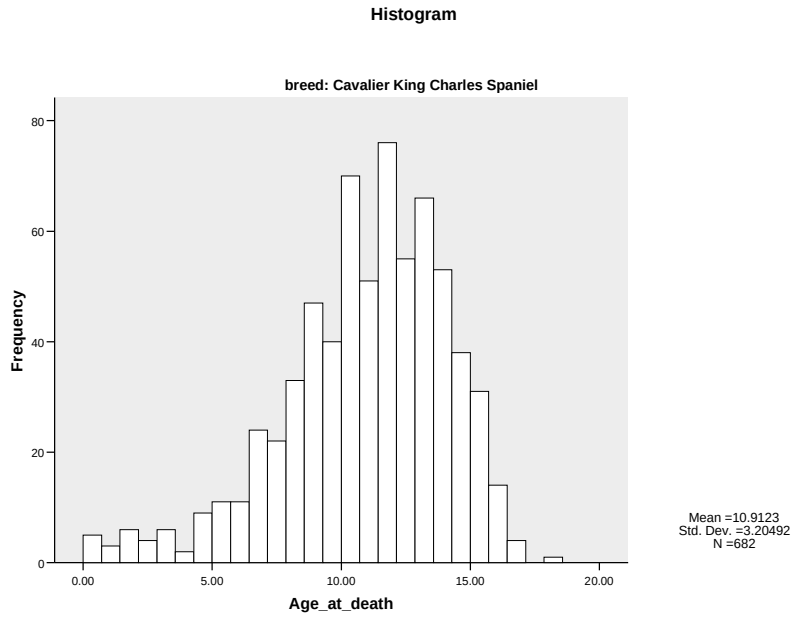

Figure 1. Histogram showing the frequency (as number of dogs) of age at death (in years) for the 682 Cavalier King Charles Spaniel deaths with age at death reported.

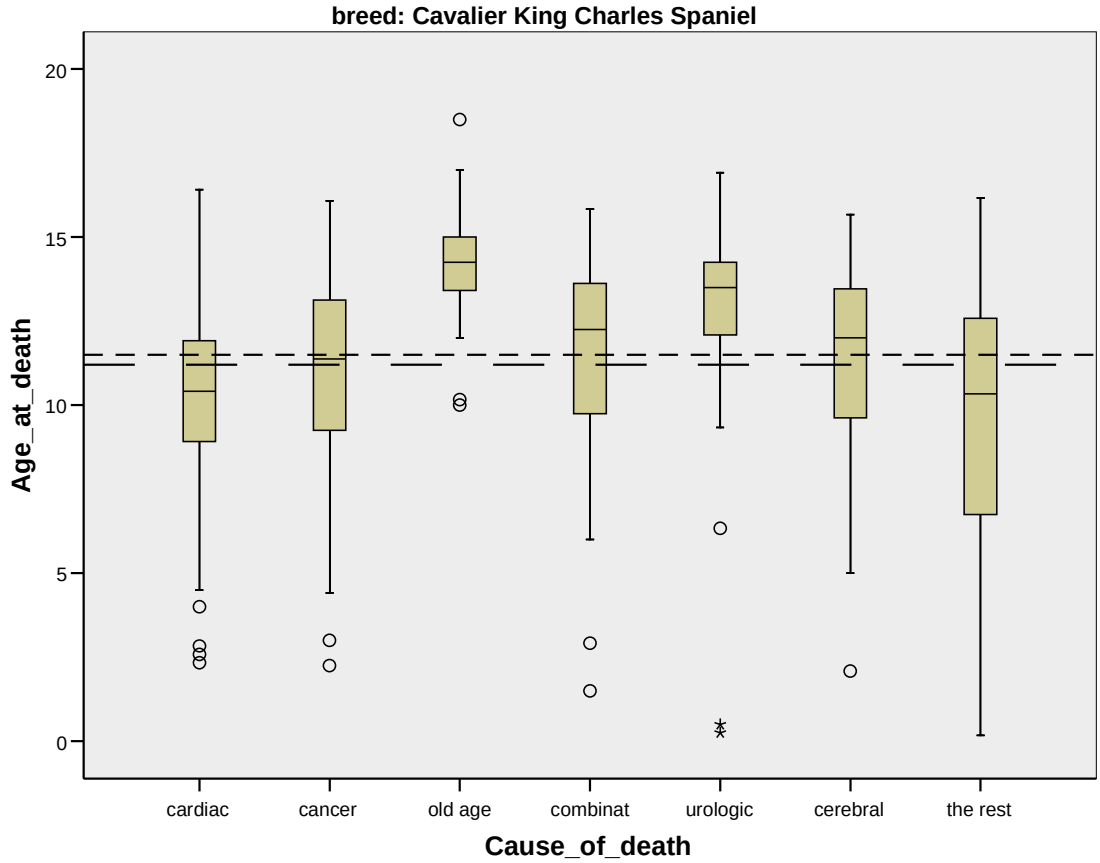

Figure 2. Box and whisker plot of age at death in years for the most common causes of death in Cavalier King Charles Spaniels (N=682). The dashed line (– – –) is the overall median age at death for all dogs in the survey and the dotted line (----) is the overall median age of death for Cavalier King Charles Spaniels. The solid line within each grey box represents the median age at death from the condition.

Morbidity data

The median current age of the 1242 live dogs with a reported age was 5 years and 2 months (min=1 month, max=17 years, Figure 3). Health information was reported for 1253 live dogs of which 750 (60%) were healthy and 503 (40%) had at least one reported health condition, resulting in a total of 853 reported conditions with a median of 1 condition/dog (min=1, max=8).

The median current age of all healthy dogs with a reported age (N=750) was 3 years and 6 months (min=1 month, max=15 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=502) was 7 years and 5 months (min=6 months, max=17 years). The median age at diagnosis for all disease occurrences with a reported age at diagnosis (N=817) was 5 years (min= 1 month, max= 14 years and 1 month, Figure 4). Table 3 shows the disease conditions for Cavalier King Charles Spaniels. Age at diagnosis is presented for the most common disease conditions (Figure 5).

Table 2. Distribution of gender and neuter status for 1246 Cavalier King Charles Spaniels with reported gender and neuter status.

	Neuter status		
Gender	Intact	Neutered	Totals
Female	652	235	887 (71%)
Male	276	83	359 (29%)
Totals	928 (74%)	318 (26%)	1246 (100%)

There was no association between gender and neuter status (P=0.2160).

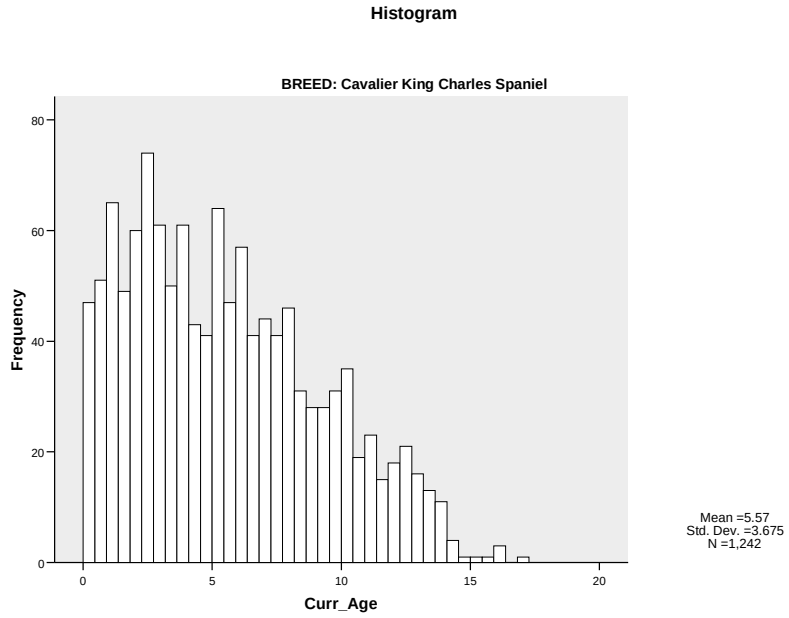

Figure 3. Histogram showing frequency of current age in years for the 1242 live Cavalier King Charles Spaniels with age reported.

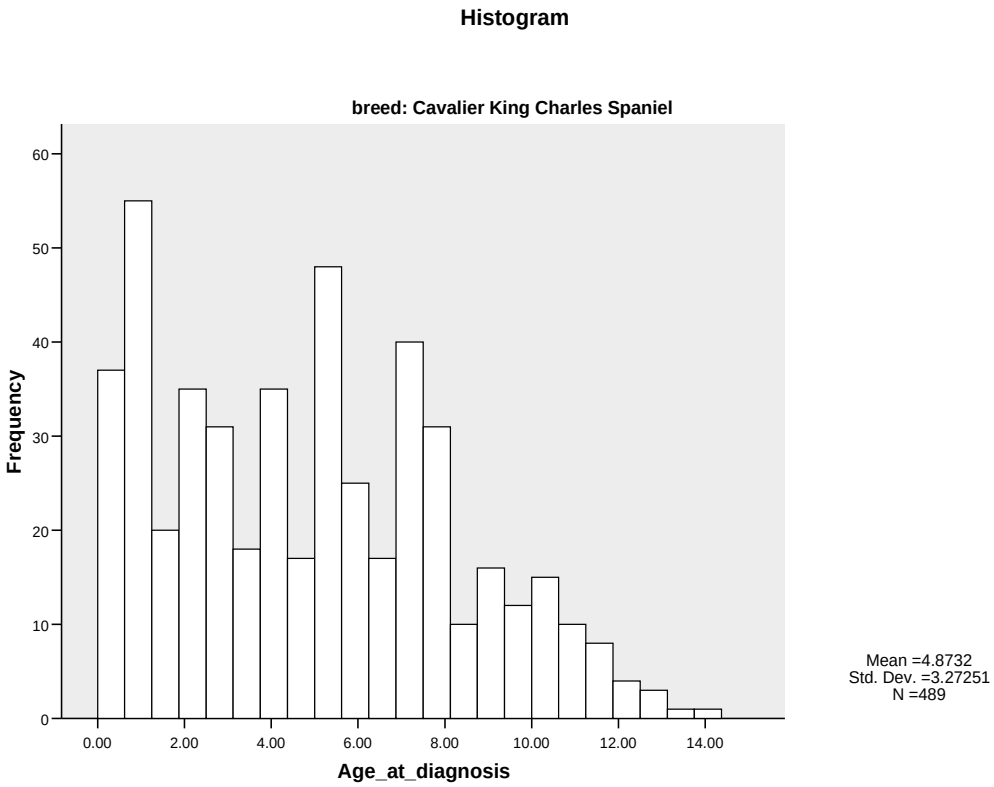

Figure 4. Histogram showing frequency of age at diagnosis for the 489 Cavalier King Charles Spaniels with one or more disease conditions, using the youngest age at which a disease condition was first reported for those dogs with more than one disease condition or episode.

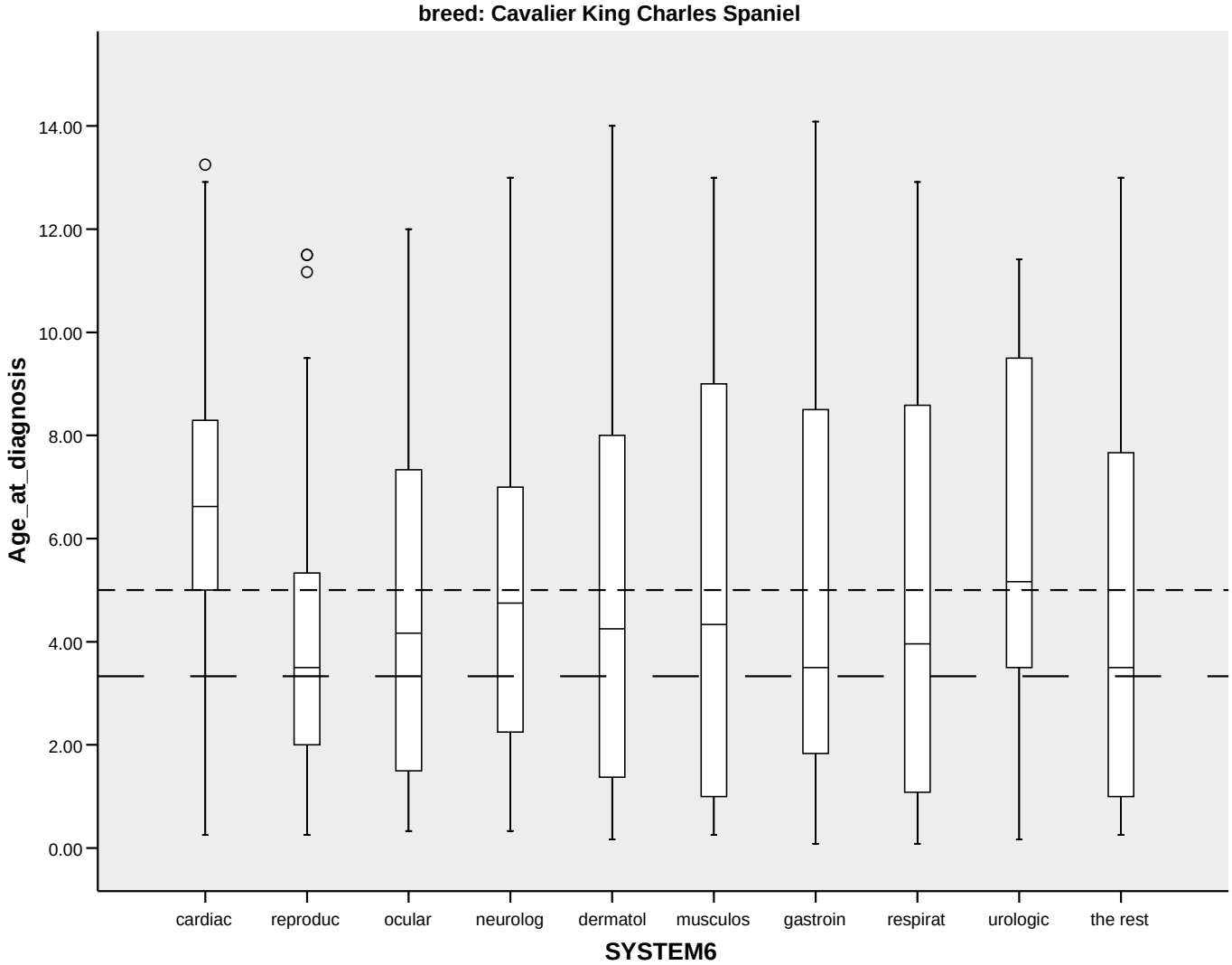

Figure 5. Box and whisker plot of age at diagnosis in years for the most common disease conditions in descending order for Cavalier King Charles Spaniels (N=502 dogs with 817 conditions with age reported). The dashed line (– – –) is the overall median age at diagnosis for all dogs in the survey and the dotted line (----) is the overall median age at diagnosis for Cavalier King Charles Spaniels. 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 Cavalier King Charles Spaniels.

		All conditions		
Disease condition		N	%	Most common specific conditions in descending order
1	Cardiac	212	24.9	Heart murmur (unspecified>grades 1,3>gr2>rest); MVD; CHF
2	Reproductive	128	15.0	Pyometra; dystochia (uterine inertia>stuck puppy); false pregnancy; infertility; cryptorchid
3	Ocular	93	10.9	KCS; epiphora; corneal ulcer; MRD; conjunctivitis; cataracts
4	Neurologic	67	7.9	Deafness; seizures or fits; syringomyelia; IVDD; vestibular disease
5	Dermatologic	53	6.2	Mites (sarcoptes>cheyletiella); dermatitis; fading nose pigment
6	Musculoskeletal	50	5.9	Arthritis (hindlimb>rest); patellar luxation; CHD; stiff joints
7	Gastrointestinal	44	5.2	Colitis; pancreatitis; vomiting; diarrhoea; IBD; EPI; foreign body obstruction
8	Respiratory	35	4.1	Kennel cough; noisy breathing; long soft palate; snoring
9	Dental	32	3.8	Retained puppy teeth; dental disease
10	Urologic	29	3.4	Cystitis; haematuria; cystouroliths (unspecified>calcium oxalate)
11	Aural	21	2.5	Otitis externa; excessive ear wax; ear mites
12	Unknown	16	1.9	Undiagnosed illness
13	Immune mediated	13	1.5	Atopy; flea allergy; food allergy; gluten-sensitive enteropathy; AIHA
14	Endocrine	12	1.4	Hypothyroidism; diabetes mellitus; Cushing's disease; acromegaly; hyperthyrodism
15	Trauma	11	1.3	Unspecified; ocular; spine; forelimb
16	Anal gland	10	1.2	Anal sacculitis
17	Benign neoplasia	9	1.1	Lipoma; adenoma (mammary); unspecified (spleen)
18	Cancer	7	0.8	Type unspecified; carcinoma; melanoma
19	Uncode and other	4	0.5	Inguinal hernia; poisoning (other than food); senility
20	Cerebrovascular	3	0.4	Stroke or cerebral vascular accident
21	Hepatic	2	0.2	Ascites or fluid in abdomen
22	Behaviour	1	0.1	Unspecified
23	Cardiopulmonary	1	0.1	Chronic coughing
	Total	853	100.0	