

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

Summary results of the
Purebred Dog Health Survey
for Bernese Mountain Dogs

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%.

Bernese Mountain Dogs

A total of 1200 forms were sent out and 361 were returned, representing 629 live dogs. This breed had a 30.1 % response rate (361/1200) and it represented 2.63% of all returns (361/13,741).

Mortality data

A total of 394 deaths were reported and this represents 2.48 % of all deaths reported in the survey (394/15,881). The median age at death for Bernese Mountain Dogs was 8 years (min = 5 months, max = 15 years and 2 months) and this was lower than the overall median of 11 years and 3 months (Figure 1). Table 1 shows the causes of death for Bernese Mountain Dogs. Age at death is presented for the most common causes of death (Figure 2).

Table 1. Causes of death by organ system/category for Bernese Mountain Dogs.

Cause of death	N	%	Most common specific causes in descending order
1 Cancer	180	45.7	Type unspecified; lymphoma; liver – type unspecified
2 Musculoskeletal	24	6.1	Arthritis; hip dysplasia; cruciate ligament rupture or CLR
3 Old age	24	6.1	Old age
4 Other	22	5.6	Uncodeable
5 Cardiac	20	5.1	Heart failure; heart attack; heart enlarged or cardiomegaly
6 Neurologic	20	5.1	Seizures or fits; disc disease or IVDD; epilepsy
7 Gastrointestinal	18	4.6	Gastric dilatation/volvulus (GDV); protein losing enteropathy
8 Urologic	16	4.1	Kidney failure chronic or unspecified or chronic renal failure
9 Immune mediated	13	3.3	Unspecified; AIHA; MMM; systemic lupus erythematosus
10 Combinations	12	3.0	
11 Behaviour	10	2.5	Aggression; behavioural problem unspecified
12 Hepatic	5	1.3	Liver failure chronic or unspecified; liver disease
13 Trauma	5	1.3	Road traffic accident; trauma or accident unspecified
14 Unknown	5	1.3	
15 Perioperative	4	1.0	
16 Cerebral vascular	3	0.8	Stroke or cerebral vascular accident
17 Reproductive	3	0.8	Pyometra
18 Respiratory	3	0.8	
19 Dermatologic	2	0.5	Anal furunculosis; skin disease unspecified
20 Sudden death	2	0.5	
21 PSS	1	0.3	
22 Infection	1	0.3	Toxoplasmosis
23 Internal bleeding	1	0.3	
Total	394	100.0	

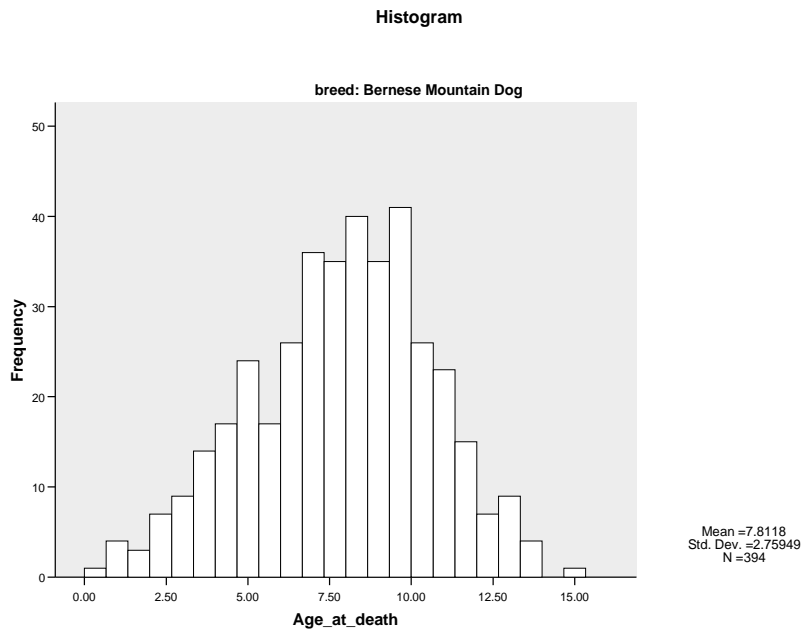


Figure 1. Histogram showing the frequency (as number of dogs) of age at death (in years) for the 394 Bernese Mountain Dog deaths with age at death reported.

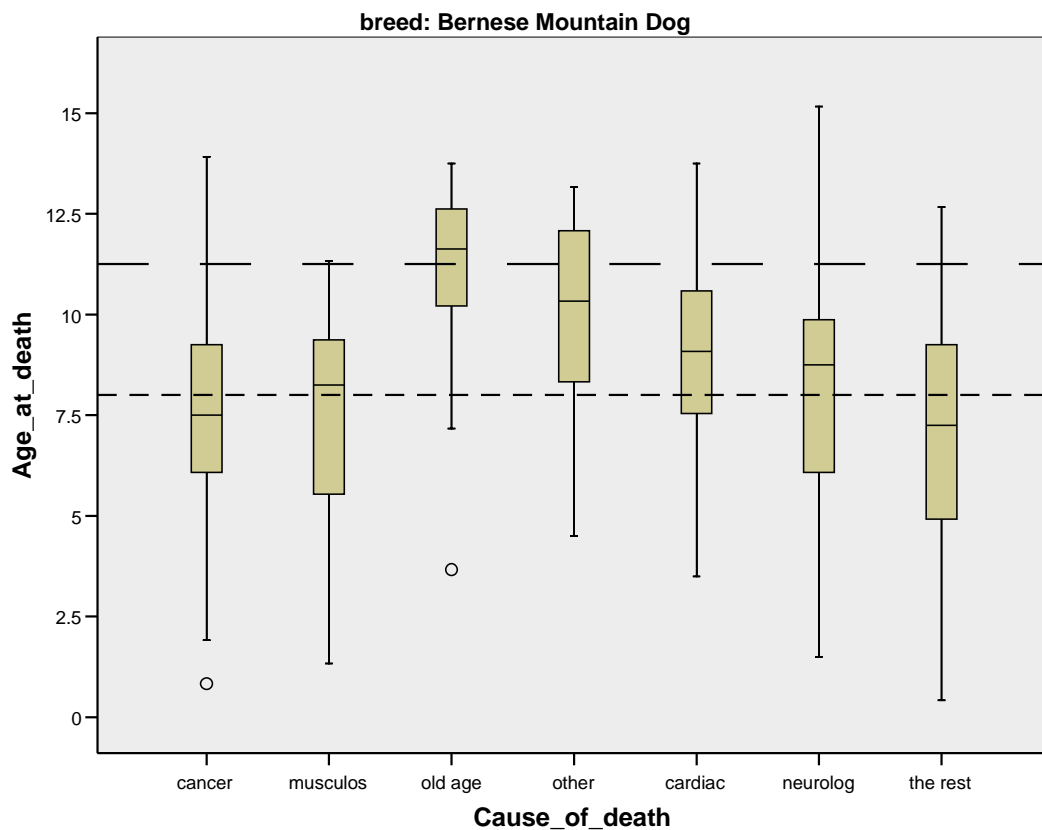


Figure 2. Box and whisker plot of age at death in years for the most common causes of death in Bernese Mountain Dogs (N=394). The dashed line (---) is the overall median age at death for all dogs in the survey and the dotted line (----) is the overall median age of death for Bernese Mountain Dogs. The solid line within each grey box represents the median age at death from the condition.

Morbidity data

The median current age of the 629 live dogs with a reported age was 4 years and 0 months (min=2 months, max=12 years and 8 months, Figure 3). Health information was reported for 629 live dogs of which 338 (54%) were healthy and 291 (46%) had at least one reported health condition, resulting in a total of 511 reported conditions with a median of 1 condition/dog (min=1, max=9).

The median current age of all healthy dogs with a reported age (N=338) was 3 years and 2 months (min=2 months, max=12 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=290) was 5 years and 0 months (min=4 months, max=12 years and 8 months). The median age at diagnosis for all disease occurrences with a reported age at diagnosis (N=489) was 2 years and 5 months (min= 2 months, max= 12 years and 8 months, Figure 4). Table 3 shows the disease conditions for Bernese Mountain Dogs. Age at diagnosis is presented for the most common disease conditions (Figure 5).

Table 2. Distribution of gender and neuter status for 624 Bernese Mountain Dogs with reported gender and neuter status.

Gender	Neuter status		Totals
	Intact	Neutered	
Female	199	163	362 (58%)
Male	164	98	262 (42%)
Totals	363 (58%)	261 (42%)	624 (100%)

There was no association between gender and neuter status (P=0.0567).

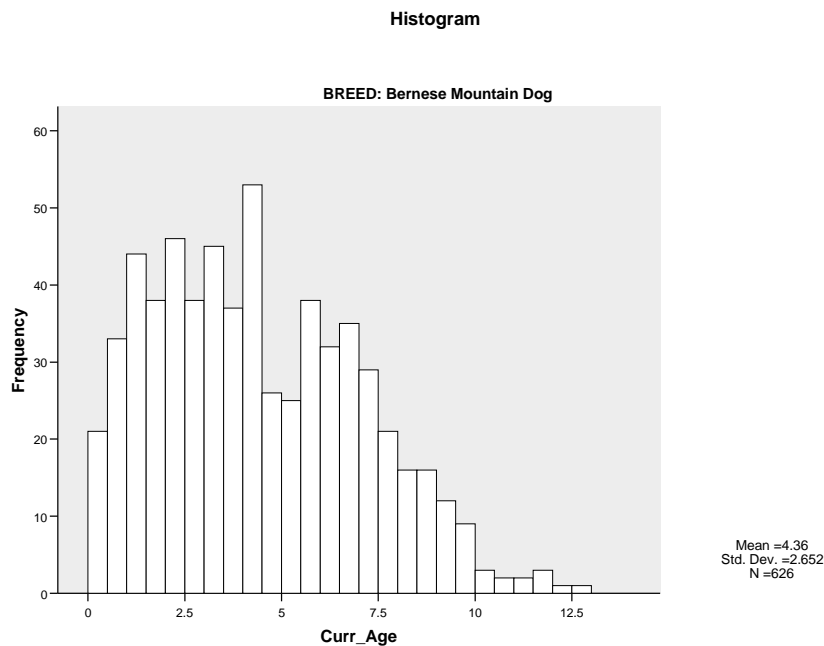


Figure 3. Histogram showing frequency of current age in years for the 626 live Bernese Mountain Dogs with age reported.

Histogram

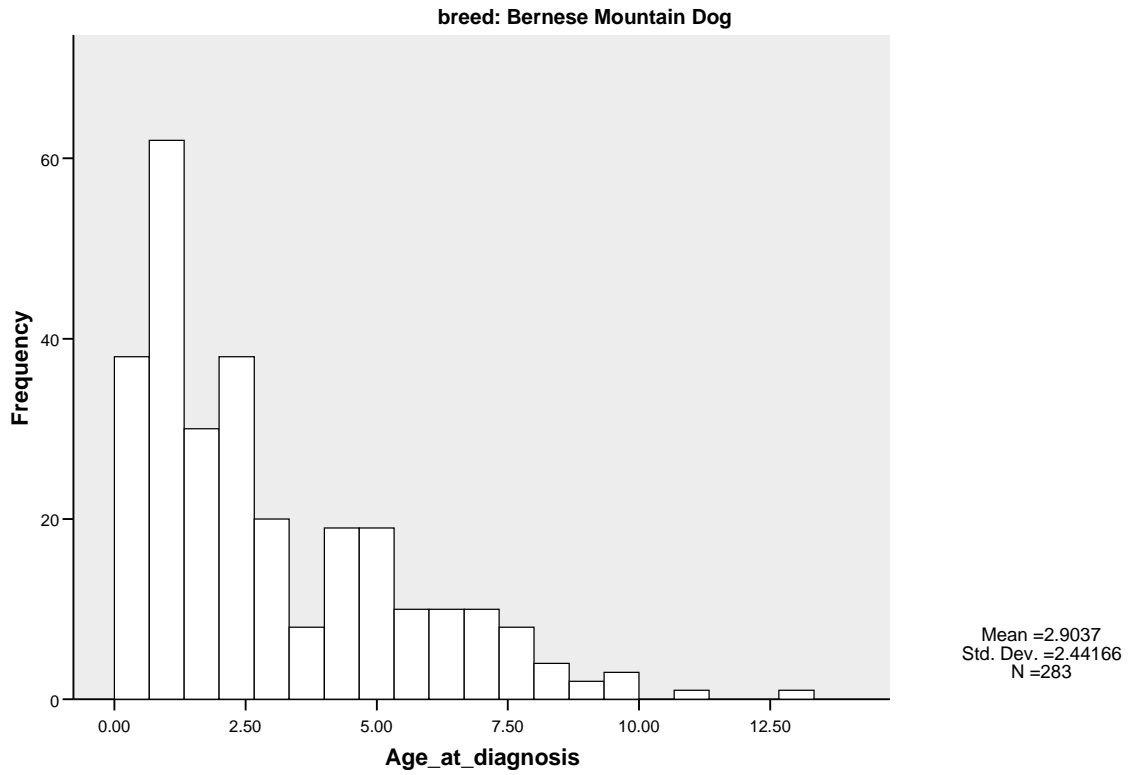


Figure 4. Histogram showing frequency of age at diagnosis for the 283 Bernese Mountain Dogs with one or more disease conditions, using the youngest age at which a disease condition was first reported for those dogs with more than one disease condition or episode.

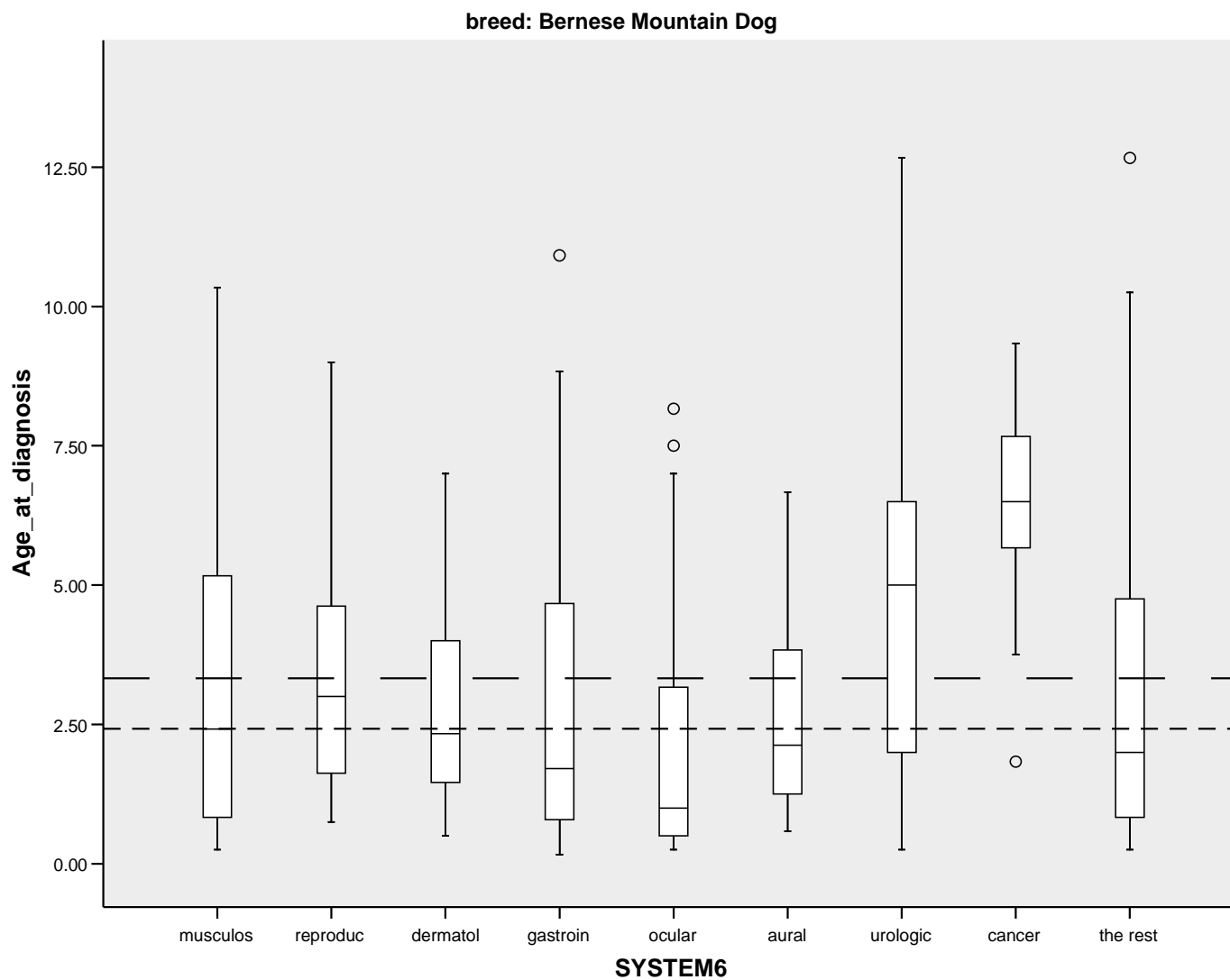


Figure 5. Box and whisker plot of age at diagnosis in years for the most common disease conditions in descending order for Bernese Mountain Dogs (N=290 dogs with 489 conditions with age reported). The dashed line (---) is the overall median age at diagnosis for all dogs in the survey and the dotted line (----) is the overall median age at diagnosis for Bernese Mountain Dogs. 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 Bernese Mountain Dogs.

Disease condition	All conditions		Most common specific conditions in descending order
	N	%	
1 Musculoskeletal	161	31.5	CLR; arthritis (elbows>shoulders>rest); CHD; OCD (elbow>shoulder>unspecified)
2 Reproductive	71	13.9	Pyometra; false pregnancy; dystochia (uterine inertia>stuck puppy); infertility
3 Dermatologic	48	9.4	Dermatitis; pyotraumatic dermatitis; mites (sarcoptes>unspecified)
4 Gastrointestinal	43	8.4	GDV; colitis; diarrhoea; gastroenteritis; pancreatitis
5 Ocular	35	6.8	Entropion; cataracts; conjunctivitis
6 Aural	22	4.3	Otitis externa; aural haematoma; excessive ear wax
7 Urologic	21	4.1	Cystitis; haematuria; cystouroliths (unspecified); incontinence
8 Immune mediated	19	3.7	Flea allergy; gluten-sensitive enteropathy; atopy; dust mites; allergy unspecified
9 Neurologic	19	3.7	Seizures; meningitis; myelin disorders
10 Cancer	15	2.9	MCT (paw); type unspecified; histiocytosis; sarcoma
11 Unknown	12	2.3	Undiagnosed illness
12 Benign neoplasia	8	1.6	Lipoma; histiocytoma (skin)
13 Respiratory	7	1.4	Kennel cough; long soft palate; noisy breathing; tracheal collapse
14 Endocrine	6	1.2	Hypothyroidism; diabetes mellitus
15 Trauma	6	1.2	Musculoskeletal; ocular; dermatologic
16 Cardiac	5	1.0	Heart murmur; dilated cardiomyopathy; heart rhythm disorder
17 Behaviour	4	0.8	Unspecified; aggression
18 Dental	2	0.4	Dental disease; retained puppy teeth
19 Hepatic	2	0.4	Cholangiohepatitis; portosystemic shunt (PSS)
20 Other	2	0.4	Uncodeable
21 Anal gland	1	0.2	Anal sacculitis
22 Cerebrovascular	1	0.2	Stroke or cerebral vascular accident
23 Haematopoietic	1	0.2	Anaemia (unspecified)
Total	511	100.0	