

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

Summary results of the
Purebred Dog Health Survey
for Golden Retrievers

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%.

Golden Retrievers

A total of 3282 forms were sent out and 538 were returned, representing 1717 live dogs. This breed had a 16.4% response rate (538/3282) and it represented 3.92% of all returns (538/13,741).

Mortality data

A total of 927 deaths were reported and this represents 5.84% of all deaths reported in the survey (927/15,881). The median age at death for Golden Retrievers was 12 years and 3 months (min = 5 months, max = 17 years and 3 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 Golden Retrievers. Age at death is presented for the most common causes of death (Figure 2).

Table 1. Causes of death by organ system/category for Golden Retrievers.

Cause of death	N	%	Most common specific causes in descending order
1 Cancer	360	38.8	Type unspecified (liver, bone, unspecified)
2 Old age	172	18.6	Old age
3 Cerebral vascular	55	5.9	Stroke or cerebral vascular accident
4 Cardiac	50	5.4	Heart failure; heart attack; defect unspecified
5 Combinations	37	4.0	
6 Urologic	36	3.9	Kidney failure (chronic > acute); kidney stones
7 Other	34	3.7	Uncodeable
8 Neurologic	32	3.5	Seizures; CDRM; spondylitis; spinal disease (unspec.)
9 Musculoskeletal	19	2.0	Arthritis; hip dysplasia; OCD (elbow)
10 Hepatic	16	1.7	Liver failure (chronic > acute); liver disease (unspec.)
11 Gastrointestinal	15	1.6	GDV; megaesophagus; pancreatitis
12 Perioperative	15	1.6	
13 Unknown	14	1.5	
14 Trauma	11	1.2	Road traffic accident; unspecified; spinal injury
15 Behaviour	8	0.9	Aggression; unspecified
16 Reproductive	8	0.9	Pyometra; ruptured uterus
17 Endocrine	6	0.6	Diabetes mellitus; Addisons disease; Cushings disease
18 Internal bleeding	5	0.5	
19 Sudden death	5	0.5	
20 Collapse	4	0.4	
21 Infection	4	0.4	Leptospirosis; bacterial (unspec.); viral (unspec.)
22 Poisoning	4	0.4	
23 Respiratory	4	0.4	Unspecified
24 Senility	4	0.4	
25 Cardiovascular	2	0.2	Unspecified
26 Immune mediated	2	0.2	Thrombocytopaenia; unspecified
27 Ocular	2	0.2	Glaucoma; uveitis
28 Portosystemic shunt (PSS)	1	0.1	
29 Septicaemia	1	0.1	
30 Systemic	1	0.1	Allergy or insect bite or sting or snake bite
Total	927	100.0	

CDRM=chronic degenerative radiculomyelopathy

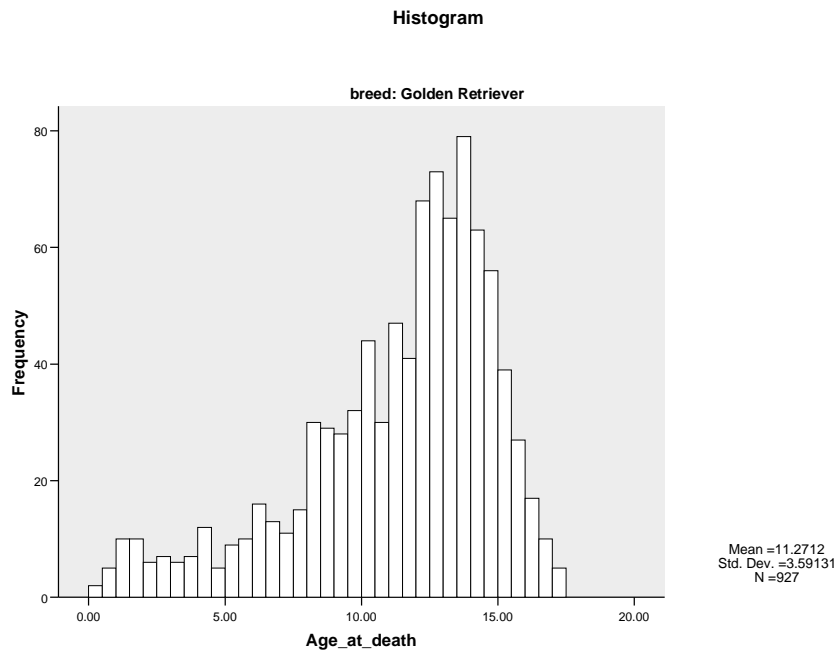


Figure 1. Histogram showing the frequency (as number of dogs) of age at death (in years) for the 927 Golden Retriever deaths with age at death reported.

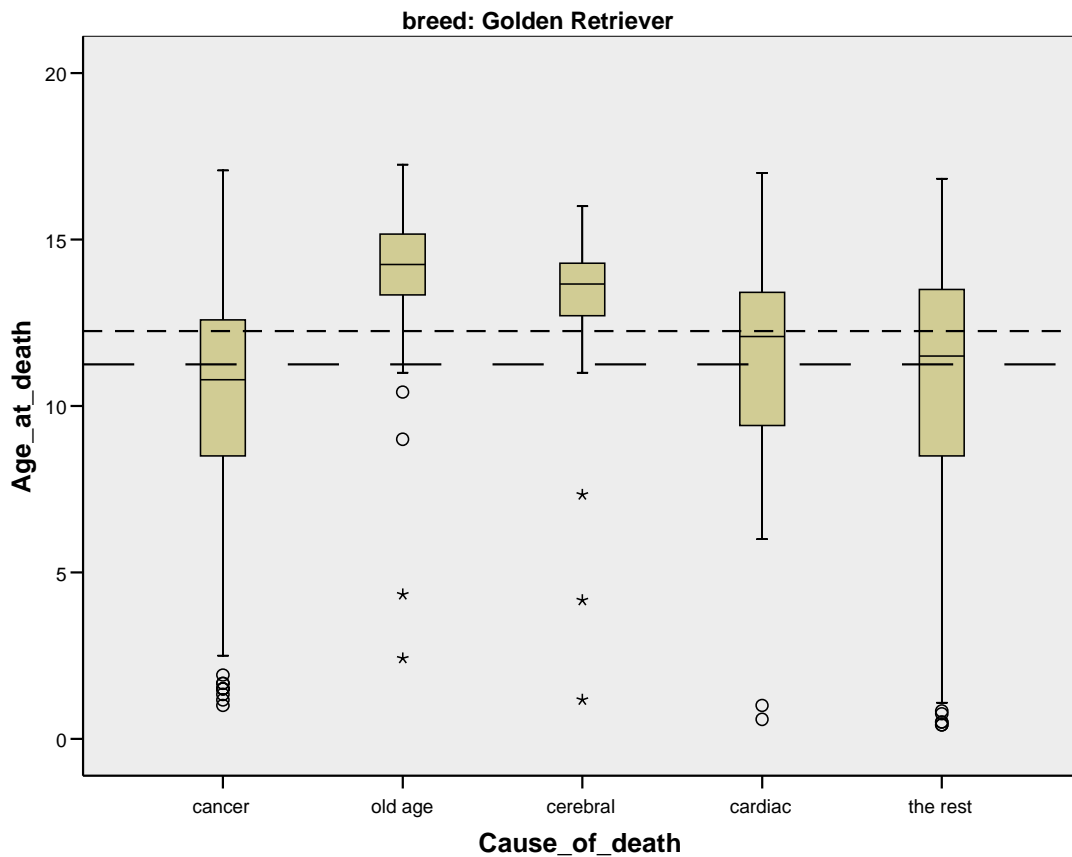


Figure 2. Box and whisker plot of age at death in years for the most common causes of death in Golden Retrievers (N=927). The dashed line (---) is the overall median age at death for all dogs in the survey and the dotted line (----) is the overall median age of death for Golden Retrievers. The solid line within each grey box represents the median age at death from the condition.

Morbidity data

The median current age of the 1706 live dogs with a reported age was 5 years and 9 months (min=2 months, max=16 years and 6 months, Figure 3). Health information was reported for 1717 live dogs of which 1062 (62%) were healthy and 655 (38%) had at least one reported health condition, resulting in a total of 1087 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=1062) was 4 years and 6 months (min=2 months, max=16 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=637) was 7 years and 11 months (min=6 months, max=16 years and 6 months). The median age at diagnosis for all disease occurrences with a reported age at diagnosis (N=1052) was 4 years (min= 2 months, max= 15 years, Figure 4). Table 3 shows the disease conditions for Golden Retrievers. Age at diagnosis is presented for the most common disease conditions (Figure 5).

Table 2. Distribution of gender and neuter status for 1697 Golden Retrievers with reported gender and neuter status.

Gender	Neuter status		Totals
	Intact	Neutered	
Female	816	342	1158 (68%)
Male	450	89	539 (32%)
Totals	1266 (75%)	431 (25%)	1697 (100%)

Significantly more females were neutered (P<0.0001).



Figure 3. Histogram showing frequency of current age in years for the 1706 live Golden Retrievers with age reported.

Histogram

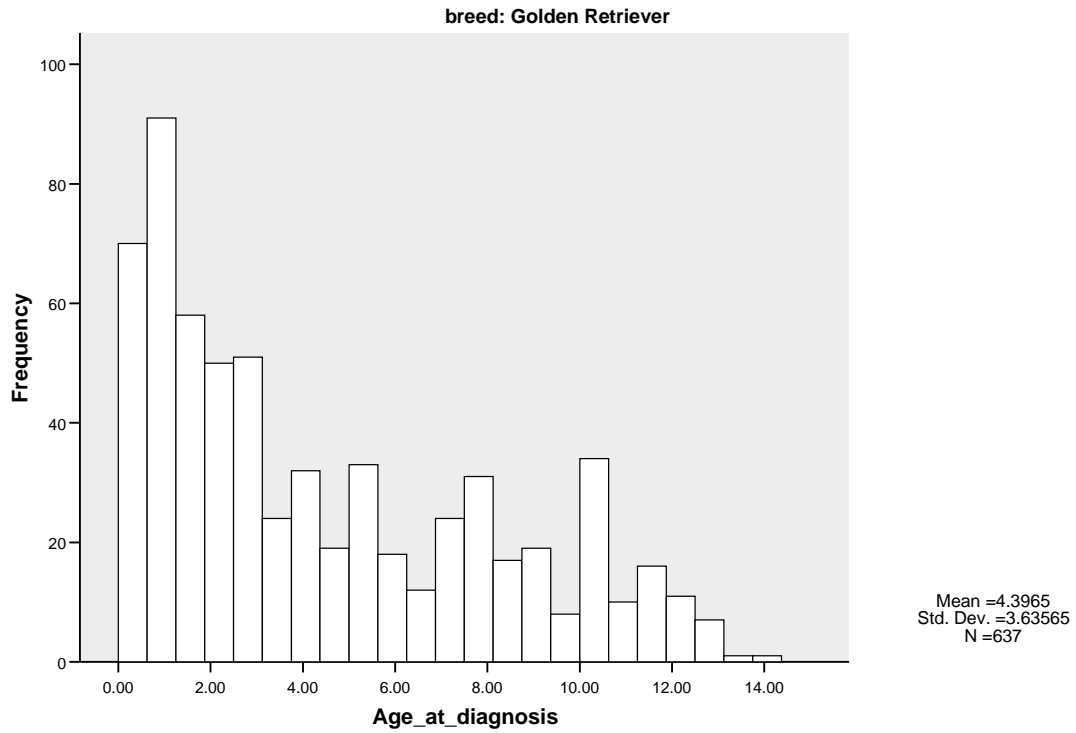


Figure 4. Histogram showing frequency of age at diagnosis for the 637 Golden Retrievers with one or more disease conditions, using the youngest age at which a disease condition was first reported for those dogs with more than one disease condition or episode.

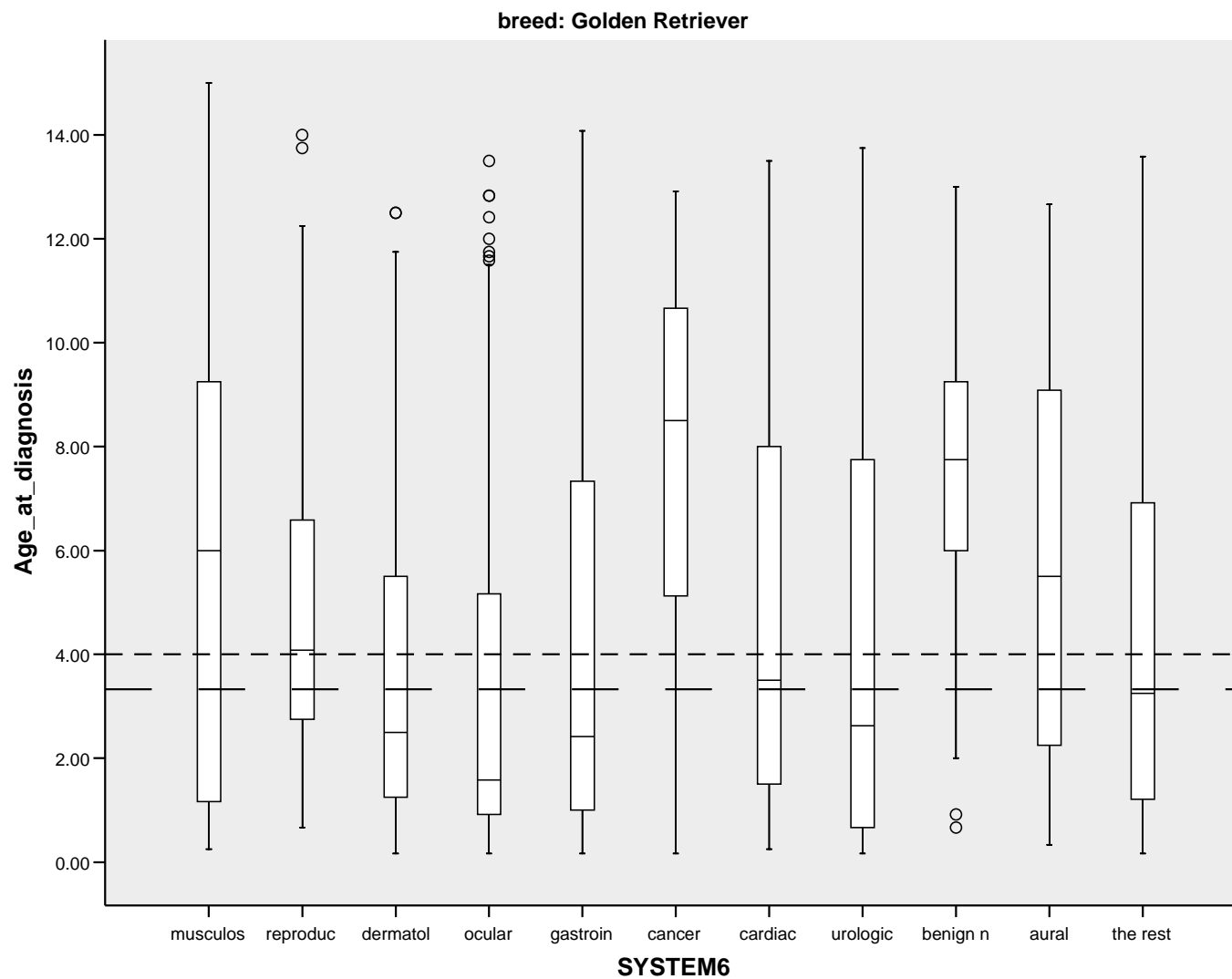


Figure 5. Box and whisker plot of age at diagnosis in years for the most common disease conditions in descending order for Golden Retrievers (N=637 dogs with 1052 conditions with age reported). The dashed line (---) is the overall median age at diagnosis for all dogs in the survey and the dotted line (----) is the overall median age at diagnosis for Golden Retrievers. 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 Golden Retrievers.

Disease condition	All conditions		Most common specific conditions in descending order
	N	%	
1 Musculoskeletal	193	17.8	Arthritis (unspecified>elbows>hindlimb>rest); CLR; CHD; OCD (elbow>rest); spondylitis
2 Reproductive	155	14.3	Pyometra; dystochia (uterine inertia>stuck puppy); false pregnancy; infertility
3 Dermatologic	136	12.5	Pyotraumatic dermatitis; fading nose pigment; dermatitis
4 Ocular	90	8.3	Cataracts; entropion; MRD; blocked tear duct; epiphora; congenital cataracts; glaucoma
5 Gastrointestinal	74	6.8	Colitis; diarrhoea; foreign body obstruction; IBD; gastric dilatation/volvulus (GDV)
6 Cancer	56	5.2	Type unspecified (skin, mammary); MCT (various); lymphoma; adenocarcinoma
7 Respiratory	51	4.7	Kennel cough; laryngeal paralysis; rhinitis; pneumonia
8 Cardiac	50	4.6	Heart murmur (unspecified>grade2>grade1>rest); aortic stenosis; heart rhythm disorder
9 Urologic	47	4.3	Cystitis; incontinence (unspecified>OHE); cystouroliths (unspecified)
10 Benign neoplasia	42	3.9	Lipoma; type unspecified (mammary); histiocytoma; adenoma (perianal)
11 Immune mediated	39	3.6	Atopy; gluten-sensitive enteropathy; food hypersensitivity; other allergy (unspecified);
12 Aural	37	3.4	Otitis externa; aural haematoma; otitis interna
13 Endocrine	30	2.8	Hypothyroidism; Cushing's disease; hyperthyroidism; hypoparathyroidism; weight loss
14 Neurologic	21	1.9	Seizures; CDRM; IVDD (unspecified; lumbar); neuropathy
15 Unknown	21	1.9	Unknown; undiagnosed liver disease
16 Trauma	15	1.4	Hindlimb; forelimb; other (unspecified)
17 Dental	12	1.1	Retained puppy teeth; dental disease; defect other than extra teeth
18 Uncode and other	7	0.6	Uncodeable
19 Anal gland	4	0.4	Anal sacculitis
20 Cerebrovascular	4	0.4	Stroke or cerebral vascular accident
21 Hepatic	2	0.2	Hepatitis; PSS
22 Behaviour	1	0.1	Unspecified
Total	1087	100.0	