

BRITISH VETERINARY ASSOCIATION / KENNEL CLUB ELBOW DYSPLASIA SCHEME

Breed Specific Statistics – Data collected to 31st December 2016

ELBOW GRADES BY BREED 1999-2016

Elbow grading should be considered along with other criteria as part of a responsible breeding programme, and it is strongly recommended that breeders choose breeding stock (both dogs and bitches) from animals with an overall elbow grade of 0. Dogs with elbow grades of 2 or 3 have marked osteoarthritis which is highly likely to be due to ED. Dogs of elbow grades of 1 show mild or early osteoarthritis which is also likely to be due to ED. Lameness is not a good indicator of elbow status and many dogs with ED do not show signs of lameness (i.e. they are affected sub-clinically) at the age at which they are used for breeding. ED status of parents, siblings and progeny for Kennel Club registered dogs should also be considered, and these together with a three generation Health Test Pedigree may be downloaded via the Health Test Results Finder, available on the Kennel Club's online health tool Mate Select (www.mateselect.org.uk). In addition, estimated breeding values (EBVs) are available for breeds in which a significant number of dogs have been graded, via the same link.

The table below shows ED results for all breeds that have been tested in the last 18 years broken down by breed and grade (both numerically and as a percentage).

Breeds	No. dogs graded	Grades				Grades 1,2 and 3	Breeds	No. dogs graded	Grades				Grades 1,2 and 3
		0	1	2	3				0	1	2	3	
Airedale Terrier	9	6 (66.7%)	3 (33.3%)	0 (0.0%)	0 (0.0%)	3 (33.3%)	Chow Chow	73	29 (39.7%)	12 (16.4%)	19 (26.0%)	13 (17.8%)	44 (60.3%)
Akita	7	7 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	Cavalier King Charles Spaniel	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Alaskan Malamute	45	39 (86.7%)	4 (8.9%)	2 (4.4%)	0 (0.0%)	6 (13.3%)	Collie (Rough)	6	6 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Anatolian Shepherd Dog	3	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	Collie (Smooth)	2	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Australian Cattle Dog	101	77 (76.2%)	16 (15.8%)	7 (6.9%)	1 (1.0%)	24 (23.8%)	Dalmatian	66	60 (90.9%)	5 (7.6%)	1 (1.5%)	0 (0.0%)	6 (9.1%)
Australian Shepherd	267	256 (95.9%)	8 (3.0%)	2 (0.7%)	1 (0.4%)	11 (4.1%)	Dobermann	25	24 (96.0%)	1 (4.0%)	0 (0.0%)	0 (0.0%)	1 (4.0%)
Basenji	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	Dogue de Bordeaux	348	210 (60.3%)	59 (17.0%)	54 (15.5%)	25 (7.2%)	138 (39.7%)
Basset Hound	5	1 (20.0%)	1 (20.0%)	3 (60.0%)	0 (0.0%)	4 (80.0%)	English Setter	4	3 (75.0%)	0 (0.0%)	1 (25.0%)	0 (0.0%)	1 (25.0%)
Bavarian Mountain Hound (Imp)	2	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	Entlebucher Mountain Dog (Imp)	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Beagle	3	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	Estrela Mountain Dog	12	9 (75.0%)	1 (8.3%)	2 (16.7%)	0 (0.0%)	3 (25.0%)
Bearded Collie	113	103 (91.2%)	5 (4.4%)	3 (2.7%)	2 (1.8%)	10 (8.8%)	Eurasian	129	123 (95.3%)	3 (2.3%)	3 (2.3%)	1 (0.8%)	7 (5.4%)
Beauceron	5	4 (80.0%)	1 (20.0%)	0 (0.0%)	0 (0.0%)	1 (20.0%)	Finnish Lapphund	11	11 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Bernese Mountain Dog	1922	1217 (63.3%)	272 (14.2%)	280 (14.6%)	153 (8.0%)	705 (36.7%)	French Bulldog	3	2 (66.7%)	1 (33.3%)	0 (0.0%)	0 (0.0%)	1 (33.3%)
Basset Fauve De Bretagne	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	German Longhaired Pointer	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Basset Griffon Vendéen Grand	2	0 (0.0%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	German Spitz (Klein)	5	4 (80.0%)	1 (20.0%)	0 (0.0%)	0 (0.0%)	1 (20.0%)
Bloodhound	34	18 (52.9%)	9 (26.5%)	6 (17.6%)	1 (2.9%)	16 (47.1%)	German Wirehaired Pointer	33	31 (93.9%)	2 (6.1%)	0 (0.0%)	0 (0.0%)	2 (6.1%)
Border Collie	233	228 (97.9%)	5 (2.1%)	0 (0.0%)	0 (0.0%)	5 (2.1%)	Giant Schnauzer	27	26 (96.3%)	1 (3.7%)	0 (0.0%)	0 (0.0%)	1 (3.7%)
Border Terrier	1	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	Glen of Imaal	2	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Bouvier des Flandres	26	22 (84.6%)	2 (7.7%)	2 (7.7%)	0 (0.0%)	4 (15.4%)	Gordon Setter	11	7 (63.6%)	2 (18.2%)	1 (9.1%)	1 (9.1%)	4 (36.4%)
Boxer	8	7 (87.5%)	1 (12.5%)	0 (0.0%)	0 (0.0%)	1 (12.5%)	Great Dane	176	154 (87.5%)	9 (5.1%)	6 (3.4%)	7 (4.0%)	22 (12.5%)
Bracco Italiano	137	103 (75.2%)	24 (17.5%)	8 (5.8%)	2 (1.5%)	34 (24.8%)	Greater Swiss Mountain Dog	37	30 (81.1%)	5 (13.5%)	1 (2.7%)	1 (2.7%)	7 (18.9%)
Briard	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	German Shepherd Dog	3700	3036 (82.1%)	378 (10.2%)	187 (5.1%)	99 (2.7%)	664 (17.9%)
Brittany	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	Havanese	6	4 (66.7%)	2 (33.3%)	0 (0.0%)	0 (0.0%)	2 (33.3%)
Belgian Shepherd Dog (Groenendael)	9	9 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	Hovawart	12	12 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Belgian Shepherd Dog (Laekenois)	2	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	Hungarian Wirehaired Vizla	36	36 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Belgian Shepherd Dog (Malinois)	63	57 (90.5%)	6 (9.5%)	0 (0.0%)	0 (0.0%)	6 (9.5%)	Hungarian Pumi	6	6 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Belgian Shepherd Dog (Tervueren)	10	9 (90.0%)	1 (10.0%)	0 (0.0%)	0 (0.0%)	1 (10.0%)	Hungarian Vizla	202	187 (92.6%)	13 (6.4%)	1 (0.5%)	1 (0.5%)	15 (7.4%)
Bull Terrier (Miniature)	2	0 (0.0%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	Irish Red and White Setter	7	7 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Bulldog	5	3 (60.0%)	1 (20.0%)	1 (20.0%)	0 (0.0%)	2 (40.0%)	Irish Setter	8	8 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Bullmastiff	88	43 (48.9%)	19 (21.6%)	20 (22.7%)	6 (6.8%)	45 (51.1%)	Irish Wolfhound	3	1 (33.3%)	1 (33.3%)	1 (33.3%)	0 (0.0%)	2 (66.7%)
Canaan Dog	5	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	Italian Greyhound	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Catalan Sheepdog	8	7 (87.5%)	1 (12.5%)	0 (0.0%)	0 (0.0%)	1 (12.5%)	Italian Spinone	51	42 (82.4%)	4 (7.8%)	5 (9.8%)	0 (0.0%)	9 (17.6%)

Breeds	No. dogs graded	Grades				Grades 1,2 and 3
		0	1	2	3	
Japanese Akita Inu	2	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Keeshond	9	5 (55.6%)	4 (44.4%)	0 (0.0%)	0 (0.0%)	4 (44.4%)
Kooikerhondje	2	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Korthals Griffon (Imp)	15	11 (73.3%)	2 (13.3%)	1 (6.7%)	1 (6.7%)	4 (26.7%)
Lagotto Romagnolo	9	9 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Large Munsterlander	203	160 (78.8%)	25 (12.3%)	14 (6.9%)	4 (2.0%)	43 (21.2%)
Leonberger	1057	968 (91.6%)	67 (6.3%)	9 (0.9%)	13 (1.2%)	89 (8.4%)
Maremma Sheepdog	3	2 (66.7%)	1 (33.3%)	0 (0.0%)	0 (0.0%)	1 (33.3%)
Mastiff	143	115 (80.4%)	10 (7.0%)	11 (7.7%)	7 (4.9%)	28 (19.6%)
Neapolitan Mastiff	15	10 (66.7%)	3 (20.0%)	2 (13.3%)	0 (0.0%)	5 (33.3%)
Newfoundland	904	651 (72.0%)	130 (14.4%)	83 (9.2%)	40 (4.4%)	253 (28.0%)
Norwegian Elkhound	5	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Old English Sheepdog	27	24 (88.9%)	3 (11.1%)	0 (0.0%)	0 (0.0%)	3 (11.1%)
Otterhound	129	53 (41.1%)	36 (27.9%)	32 (24.8%)	8 (6.2%)	76 (58.9%)
Pointer	8	7 (87.5%)	1 (12.5%)	0 (0.0%)	0 (0.0%)	1 (12.5%)
Pomeranian	2	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Poodle (Miniature)	13	9 (69.2%)	3 (23.1%)	1 (7.7%)	0 (0.0%)	4 (30.8%)
Poodle (Standard)	52	47 (90.4%)	5 (9.6%)	0 (0.0%)	0 (0.0%)	5 (9.6%)
Poodle (Toy)	2	1 (50.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	1 (50.0%)
Portuguese Water Dog	27	22 (81.5%)	4 (14.8%)	1 (3.7%)	0 (0.0%)	5 (18.5%)
Pug	5	1 (20.0%)	3 (60.0%)	1 (20.0%)	0 (0.0%)	4 (80.0%)
Pyrenean Mountain Dog	40	40 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Pyrenean Sheepdog (Longhaired)	7	7 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Retriever (Chesapeake)	41	35 (85.4%)	2 (4.9%)	3 (7.3%)	1 (2.4%)	6 (14.6%)
Retriever (Curly Coated)	10	10 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Retriever (Flat Coated)	318	312 (98.1%)	3 (0.9%)	2 (0.6%)	1 (0.3%)	6 (1.9%)
Retriever (Golden)	4296	3384 (78.8%)	541 (12.6%)	306 (7.1%)	65 (1.5%)	912 (21.2%)
Retriever (Labrador)	17004	14718 (86.6%)	1417 (8.3%)	588 (3.5%)	281 (1.7%)	2286 (13.4%)
Retriever (Nova Scotia Duck Tolling)	171	165 (96.5%)	4 (2.3%)	2 (1.2%)	0 (0.0%)	6 (3.5%)
Rhodesian Ridgeback	457	393 (86.0%)	41 (9.0%)	20 (4.4%)	3 (0.7%)	64 (14.0%)
Rottweiler	1089	535 (49.1%)	304 (27.9%)	224 (20.6%)	26 (2.4%)	554 (50.9%)
Russian Black Terrier	45	27 (60.0%)	9 (20.0%)	7 (15.6%)	2 (4.4%)	18 (40.0%)
Samoyed	5	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Schnauzer	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Scottish Terrier	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Shar Pei	7	3 (42.9%)	1 (14.3%)	2 (28.6%)	1 (14.3%)	4 (57.1%)
Shetland Sheepdog	14	13 (92.9%)	1 (7.1%)	0 (0.0%)	0 (0.0%)	1 (7.1%)
Shih Tzu	3	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Siberian Husky	20	20 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slovakian Rough Haired Pointer (Imp)	2	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Small Munsterlander (Imp)	1	1 (100.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Soft Coated Wheaten Terrier	1	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	1 (100.0%)
Spaniel (American Cocker)	1	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)
Spaniel (Cumber)	136	123 (90.4%)	7 (5.1%)	3 (2.2%)	3 (2.2%)	13 (9.6%)
Spaniel (Cocker)	93	88 (94.6%)	5 (5.4%)	0 (0.0%)	0 (0.0%)	5 (5.4%)
Spaniel (Field)	27	26 (96.3%)	1 (3.7%)	0 (0.0%)	0 (0.0%)	1 (3.7%)
Spaniel (Irish Water)	185	144 (77.8%)	27 (14.6%)	14 (7.6%)	0 (0.0%)	41 (22.2%)
Spaniel (English Springer)	90	80 (88.9%)	7 (7.8%)	3 (3.3%)	0 (0.0%)	10 (11.1%)
Spaniel (Sussex)	2	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Breeds	No. dogs graded	Grades				Grades 1,2 and 3
		0	1	2	3	
Spaniel (Welsh Springer)	185	144 (77.8%)	27 (14.6%)	14 (7.6%)	0 (0.0%)	41 (22.2%)
Spanish Water Dog	9	9 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
St. Bernard	228	184 (80.7%)	17 (7.5%)	12 (5.3%)	15 (6.6%)	44 (19.3%)
Staffordshire Bull Terrier	7	5 (71.4%)	0 (0.0%)	1 (14.3%)	1 (14.3%)	2 (28.6%)
Swedish Lapphund (Imp)	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Swedish Vallhund	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Tibetan Mastiff	96	80 (83.3%)	14 (14.6%)	2 (2.1%)	5 (5.2%)	21 (21.9%)
Tibetan Terrier	3	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Weimaraner	24	23 (95.8%)	1 (4.2%)	0 (0.0%)	0 (0.0%)	1 (4.2%)
Welsh Corgi (Cardigan)	5	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Welsh Corgi (Pembroke)	3	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
West Highland White Terrier	1	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Xoloitzcuintle (Mex Hairless) Standard (Imp)	8	8 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

ELBOW GRADES BY YEAR 1999-2016

The table below shows overall ED grade results for ED submissions for each year from 1999 to 2016, both numerically and as a percentage. The figures show a steady reduction in grades 1, 2 and 3 and a corresponding increase in the number of dogs of grade 0 (unaffected), suggesting a reduction in the incidence and severity of ED in tested dogs.

Year	Total No. Graded	Grades				Grades 1,2 and 3
		0	1	2	3	
1999	583	408 (70.0%)	89 (15.3%)	54 (9.3%)	32 (5.5%)	175 (30%)
2000	503	359 (71.4%)	70 (13.95%)	49 (9.7%)	25 (5.0%)	144 (28.6%)
2001	578	441 (76.3%)	62 (10.7%)	53 (9.2%)	22 (3.8%)	137 (23.7%)
2002	598	471 (78.8%)	59 (9.9%)	43 (7.2%)	25 (4.2%)	127 (21.2%)
2003	714	570 (79.8%)	57 (8.0%)	54 (7.6%)	33 (4.6%)	144 (20.2%)
2004	1046	828 (79.2%)	111 (10.6%)	75 (7.2%)	32 (3.1%)	218 (20.8%)
2005	1229	1014 (82.5%)	97 (7.9%)	81 (6.6%)	37 (3.0%)	215 (17.5%)
2006	1501	1206 (80.3%)	152 (10.1%)	100 (6.7%)	43 (2.9%)	295 (19.7%)
2007	1639	1335 (81.5%)	167 (10.2%)	99 (6.0%)	38 (2.3%)	304 (18.5%)
2008	1994	1675 (84.0%)	172 (8.6%)	101 (5.1%)	46 (2.3%)	319 (16.0%)
2009	2354	1956 (83.1%)	234 (9.9%)	116 (4.9%)	48 (2.0%)	398 (16.9%)
2010	2582	2099 (81.3%)	268 (10.4%)	153 (5.9%)	62 (2.4%)	483 (18.7%)
2011	3080	2529 (82.1%)	332 (10.8%)	152 (4.9%)	67 (2.2%)	551 (17.9%)
2012	3270	2637 (80.6%)	380 (11.6%)	185 (5.7%)	68 (2.1%)	633 (19.4%)
2013	3453	2774 (80.3%)	402 (11.6%)	208 (6.0%)	69 (2.0%)	679 (19.7%)
2014	3679	2989 (81.2%)	399 (10.8%)	211 (5.7%)	80 (2.2%)	690 (18.8%)
2015	4208	3534 (83.9%)	391 (9.3%)	202 (4.8%)	81 (1.9%)	674 (16.0%)
2016	4176	3525 (84.4%)	385 (9.2%)	189 (4.5%)	77 (1.8%)	651 (15.6%)