

## BHCP Summary

Data/Evidence area	Smooth	Long	Wire	Mini Smooth	Mini Long	Mini Wire	Comments on evidence	Breed Council comments
Registration trend 1980-2017	-5 p.a.	-10 p.a.	+5 p.a.	+65 p.a.	-21 p.a.	+8 p.a.		Average increase/decrease p.a.
Average Registrations 2013-17	222	169	486	3973	885	687		
Breed average COI	5.9%	12.4%	5.9%	7.4%	8.5%	7.2%	Avg. all dogs registered in 2016	
Effective Population Size (2015)	59	40	298	98	89	110		
<b>CARDIOVASCULAR CONDITIONS</b>								DachsLife 2018 = 4.3% overall
Mitral valve disease	More affected than W	More affected than S or W					Denmark 1999 - 190 Dachshunds: 29% with mitral murmur, 86% some degree of mitral prolapse France 2006 – 162 Dachshunds: 22% with left systolic apical murmurs	
Cardiac disease DachsLife 2015	DL = 1.5%	DL = .8%	DL = .4%	DL = .7%	DL = 0%	DL = .6%		DL = DachsLife 2015
Heart murmur DachsLife 2015	DL = 6.3%	DL = 3.2%	DL = 7.8%	DL = 2.9%	DL = 1.4%	DL = 2.9%		DL = DachsLife 2015
<b>DERMATOLOGICAL CONDITIONS</b>								
Atopy	DL = 20% DL18 = 8%	DL = 10% DL18 = 7%	DL = 12% DL18 = 8%	DL = 15% DL18 = 9%	DL = 12% DL18 = 7%	DL = 9% DL18 = 5%	Italy – “at increased risk”	DL = DachsLife 2015 “skin allergy” DL18 = DachsLife 2018

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Colour dilution alopecia	DachsLife 2018 = 0.4%						Belgium 1996 – 7 cases Wires?	Known issue in Blue & Isabella MS (~45% affected – informal survey)
Sterile nodular panniculitis				Min. Dachshunds “at increased risk” = 22 of 43 cases			Japan 2007	
<b>ENDOCRINE CONDITIONS</b>								
Diabetes mellitus	DachsLife 2018 = 0.7%						UK 2018 – “at increased risk” – no data	Known issue in Smooths, post-whelping
Cushing’s disease	DL = 1% DL18 = 2%	DL = 0% DL18 = 1%	DL = 1.2% DL18 = .4%	DL = .5% DL18 = .8%	DL = .6% DL18 = .7%	DL = .3% DL18 = 2%	US 2007 – “commonly affected” – no data	DL = DachsLife 2015 DL2018 = 1.2% overall
Hypothyroidism							UK 2018 – “at increased risk” – no data	
<b>GASTRO-INTESTINAL CONDITIONS</b>								
Bacterial cholecystitis							US 2015 – “Dachshunds over-represented” - 5 cases	
Colorectal polyps				“Min. Dachshunds over-represented” = 16 of 33 cases; O.R. = 5.8 vs. other breeds			Japan 2012	
Pancreatitis							Hungary 2011 – “at increased risk” O.R. = 3.2	
Sialocoele (salivary gland cyst)							Australia 1992 – “significantly over-represented” – unknown % of 60 cases	

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<b>HAEMATOLOGICAL CONDITIONS</b>								
Haemophilia A (Factor VIII deficiency)				"occurs sporadically in Min. Dachs". – no data			1999	
Pyruvate kinase deficiency							2006 - "described in Dachshunds". DNA test available	
von Willebrand's disease							1999 – "reported in Dachshunds"	
<b>HEPATIC CONDITIONS</b>								
Liver Disease		DL = .8%		DL = .7%	DL = 1.1%	DL = .3%		DL = DachsLife 2015 DL18: Liver Shunt 0.3%
<b>IMMUNOLOGICAL CONDITIONS</b>								
Immunoglobulin deficiency				"has been described in Min. Dachshunds" – no data			1996, 2000	
<b>MUSCULO-SKELETAL CONDITIONS</b>								
Legg-Calvé-Perthes disease							USA 2002 – "at elevated risk" O.R. 4.8	
Osteogenesis imperfecta			17% Carriers (Europe)				Germany 2013 – 12.9% Carriers in a sample of 1352 European dogs. DNA test available	German breeding is highest risk in this 2013 sample
Pes varus	DL18 = .5%	DL18 = 1%	DL18 = 0%	DL18 = 1%	DL18 = 1%	DL18 = .5%	2008 "affects Dachshunds most commonly" – no data	DL18 = DachsLife 2018
Inguinal or scrotal herniation							Australia – "at increased risk" – no data	

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Patellar luxation	DL = 1.5% DL18 = 3%	DL = 2.4% DL18 = 3%	DL = .4% DL18 = 1%	DL = 1.2% DL18 = 2%	DL = 3.1% DL18 = 2%	DL = .6% DL18 = 1%		DL = Dachslife 2015 DL18 = Dachslife 2018
<b>NEOPLASTIC CONDITIONS</b>								
Cardiac hemangiosarcoma				"Min. Dachs. over-represented" = 13 of 51 cases			Japan 2013	
Mammary neoplasia	DL = 1% DL18 = .5%	DL = 5% DL18 = 4%	DL = 2% DL18 = 1%	DL = 2% DL18 = .3%	DL = 2% DL18 = 3%	DL = 2% DL18 = 1%	Czech 2005 "at increased risk" – O.R. 1.6; 43 cases/2053 Dachshunds	DL = Dachslife 2015 (n=985) DL18 = Dachslife 2018 (N=2501)
Squamous cell carcinoma of digit							US 2005 – "Dachshunds over-represented" – 3 of 33 cases	
Other cancers	DL 1% DL18 = 5%	DL 1% DL18 = 12%	DL 1% DL18 = 5%	DL 1% DL18 = 4%	DL 1% DL18 = 13%	DL 2% DL18 = 5%	Germany "increased risk of mast cell tumours" Brazil "melanoma" Poland "oral fibrosarcoma" No data	DL = Dachslife 2015 DL18 = Dachslife 2018 (all cancers/tumours)
<b>NEUROLOGICAL CONDITIONS</b>								
Idiopathic epilepsy	DL = 0% DL18 = .5%	DL = 1.6% DL18 = 3%	DL = 1.2% DL18 = 2%	DL = .5% DL18 = 1%	DL = 3.9% DL18 = 4%	DL = .6% DL18 = 1%	US 1988 "possible familial form of IE" – no data	Known issue in ML. DL = Dachslife 2015 DL18 = Dachslife 2018
IVDD	DL = 24% [42%] DL18>3 = 17%	DL = 13% [17%] DL18>3 = 9%	DL = 7% [16%] DL18>3 = 9%	DL = 17% [39%] DL18>3 = 30%	DL = 13% [25%] DL18>3 = 16%	DL = 7% [30%] DL18>3 = 17%	Many papers. Lots of data. US 2013 – 8x higher breed prevalence than mixed breeds	DL = Dachslife 2015 overall prevalence & [prevalence for dogs> 3y.o.]

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								DL18>3 = DachsLife 2018 > 3y.o.
Lafora disease						89.6% Clear, 8.9% Carrier, 1.5% Affected DL18 = 1.6%	Canada 2017 - 7% Affected, 32% Carriers, 61% Clear DNA test available – results @ 4/6/18	DL18 = DachsLife 2018
Neuronal ceroid lipofuscinosis					Japan 2006 S/N insertion identified (ML)		Switzerland 1980 “described in 2 ML”. 2010 – S/N insertion identified in Min. Dachs. DNA tests available	
Vestibular disease							Brazil 2013 – “Dachshunds over-represented” – unknown number of cases from sample of 81 dogs	
<b>OCULAR CONDITIONS</b>							DNA test available NPHP4	
PRA cord1				83% Clear, 15% Carrier, 2% Affected (n=8103)	82% Clear, 16% Carrier, 2% Affected (n=6925)	95.4% Clear, 4.4% Carrier, 0.1% Affected (n=3162)	UK 2006 - cord1 identified. DNA test available. 2016 - MAP9 mutation identified DNA results @ 4/6/18	
PRA (NPHP4)			2010 – Norw.					Wires: 97.4% "Clear", 2.57%

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			Day Blindness. 10% Carriers					"Carriers", 0.017% "Affected" (2011) Mini Wires: 94% "Clear" 6% "Carriers", 0% "Affected" (2010)
SARDS							US 2008 – “over-represented”; 9% of cases from a sample of 141 dogs	DachsLife 2018 = 0.3% (N = 2564)
Keratoconjunctivitis (Dry eye)							US – “over-represented” – no data	
Microphthalmia							US ACVO – 0.2-0.8%	
Distichiasis		DL18 = 1%	DL18 = .7%	14 cases from 71 adults BVA 2012-16 DL = .3% DL18 = .4%	4 cases from 29 adults BVA 2012-16 DL = 1.7% DL18 = 2.5%	DL = .3%	US ACVO – 5.8-12.2%	Known issue in ML: 80% of 65 ML screened by the DBC had Distichiasis (1 in 5 of clinical concern). 2 of 14 MW had it. DL = DachsLife 2015 DL18 = DachsLife 2018
Corneal dystrophy							US ACVO – 0.2-1.2%	
Persistent hyperplastic primary vitreous				1 case BVA				
Persistent pupillary membranes			2 cases from 30 BVA tests 2012-16	2 cases BVA		5 cases from 24 BVA tests 2012-16	US ACVO - 6.2-15.5%	On BVA Schedule B for MW

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Cataracts			2 cases BVA	1 case BVA	1 case BVA	1 case BVA	US ACVO - 8.2-8.7% US 2005 – LH 2.1%	
Persistent hyaloid artery/remnant							US ACVO – 0.3-0.8%	
Retinal dysplasia - folds							US ACVO – 0.9-1.2%	
PRA							US ACVO – 1.3-1.6%	
Micropapilla							US ACVO – 0.3-1.2%	
Optic nerve hypoplasia							US ACVO 0.4-1.2%	
Optic disc coloboma			2 cases BVA				US ACVO – 0.3-0.4%	
Corneal lipid deposition			1 case BVA					
<b>REPRODUCTIVE CONDITIONS</b>								
Dystocia	DL18 = 3%	DL18 = 0%	DL18 = 3%	Min. Dachs 9.6%, O.R. 7.9 vs. other dogs DL18 = 1%   DL18 = 3%   DL18 = 6%			UK 2017	DL18 = DachsLife 2018
<b>RESPIRATORY CONDITIONS</b>								
Nasopharyngeal stenosis	S. Africa: 7 cases						S. Africa 2006	
<b>UROLOGICAL CONDITIONS</b>								
Urolithiasis – calcium oxalate							Canada 2003 – “slightly increased risk”, O.R. 1.55	
Urolithiasis – cystine							“at increased risk, with male dogs primarily affected” – no data	

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Mortality KC 2004	KC 2004 – median aod = 12y,8m. Top causes = Old age, Cancer, Cardiac, Neurologic						Dachshunds – all varieties	
Morbidity KC 2014	43 reports, 32 with no health conditions	39 reports, 26 with no reported conditions	94 reports, 70 with no reported conditions	296 reports, 198 with no reported conditions	168 reports, 109 with no reported conditions	146 reports, 111 with no reported condition		
Mortality KC 2014	15 deaths, age 4-16; causes brain tumour, cardiac, IVDD (2 cases each)	6 deaths, age 1-15; causes cardiac, cancer, stroke	22 deaths, age 1-16; causes cardiac	19 deaths, age 2-17; causes IVDD, old age	29 deaths, age 1-18; causes old age, cardiac, kidney	21 deaths, age 0-16; causes dementia, old age		
Mortality DBC – Cancers median AOD	12	10	9	10	9	10		DBC online survey 2009-2018
Mortality DBC – Cardiac median AOD	9	12	10	9	3 (1 case)	12		DBC online survey 2009-2018
Mortality DBC – IVDD median AOD	7	10	6	5	4	5		DBC online survey 2009-2018
Mortality DBC – Epilepsy median AOD			9		7			DBC online survey 2009-2018
Mortality DBC – Lafora median AOD					9			DBC online survey 2009-2018
Mortality DBC – Old Age median AOD	16	15	15	17	17	15		DBC online survey 2009-2018



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Agria UK (Top 3 settlements)	IVDD, Lameness, Cherry eye	Foreign body, skin allergy, Epilepsy	IVDD, Lameness, Skin allergy	IVDD, Diabetes, Foreign body	IVDD, Diar, Atopy, Pancreatitis	IVDD, Skin allergy, Cushing's		
Agria Sweden Top causes of vet care episodes (2006-11)	IVDD, Cardiac			Vom/Diar, IVDD, Mammary tumour				
Agria Sweden mortality data 2006-11	Median aod = 6.85 female, 7.2 male. Top causes IVDD, hit by car/train, drowning			Median aod = 7.4 female, 7.5 male. Top causes IVDD, hit be car/train, Liver				
C-sections reported 2012-17	6-58%	3-18%	20-42%	7-10%	12-21%	21-36%		