

Get a GRIHP! Belgian Shepherd (Malinois)

Gathered by J Uski

Breed at Glance - Belgian Shepherd (Malinois)

One of the four variations of Belgian Shepherd. Reddish brown-sable wire/rough-haired shepherd, that has strength and elegance in one. Used as companion, herding and working dog, obedient, highly trainable and loyal guard. Used very often as a police dog and in various tasks in border patrol, military and customs.

Key Health Conditions - Belgian Shepherd (Malinois)

- Hip and elbow dysplasia
- Eye diseases
- Spinal diseases and malformations
- autoimmune diseases
- epilepsy
- CJM
- Cerebellar ataxia

Malinois has wide population, that is genetically most separate from other variations. Malinois is also strongly divided in working and show lines.

Statistics and Health Strategies

Finland

JTO: <https://jalostus.kennelliitto.fi/RotuPDF.ashx?R=15.3&T=2>

*Noted issues in health are hip and elbow dysplasia and sensitive stomach

* Both hips and elbows are clearly better on show line malinois, noted that two B-hipped shouldn't be combined anymore.

* Cataracts is most common eye disease in malinois, but autoimmune keratitis (pannus) is also rising. Most of the pannus cases are on working line malinois. Meeting 11/2022 recommended eye tests done more frequently to eliminate pannus from breeding animals.

*Spondylotic and LTV-changes are also noted on JTO, both merely on working malinois, spondylosis is also very significant reason for early mortality.

*Relatively high incidence of autoimmune issues also found including atopy, allergies, IBD (inflammatory bowel disease, thyroiditis, and lupus.

*Working line malinois has also cerebellar ataxia, CJM (Cardiomyopathy with Juvenile Mortality) and DM (degenerative myelopathy) what all can be screened with DNA-testing.

Breeding restrictions:

-Hips A-B

-Elbows screened

-Eyes no PRA, hereditary cataracts, geographic or total retinal dysplasia (gRD or tRD) or any form of pannus. Any milder form must be paired with healthy dog. Eye test can be max. 24 months old at the point of mating.

-Correct testicle status for males

-All breeds restriction on FKC (Finnish Kennel Club) – worst level of evaluation closes dog from breeding (Hips E, ED grade 3 and spondylosis gr 4 fi.)

Breeding recommendations:

-Age 2-8 yrs for females and over 2 years for male

-Screened spine (spondylosis and lumbosacral transitional vertebrae (LTV))

-Character test (passed) or working result

-Acceptable bite

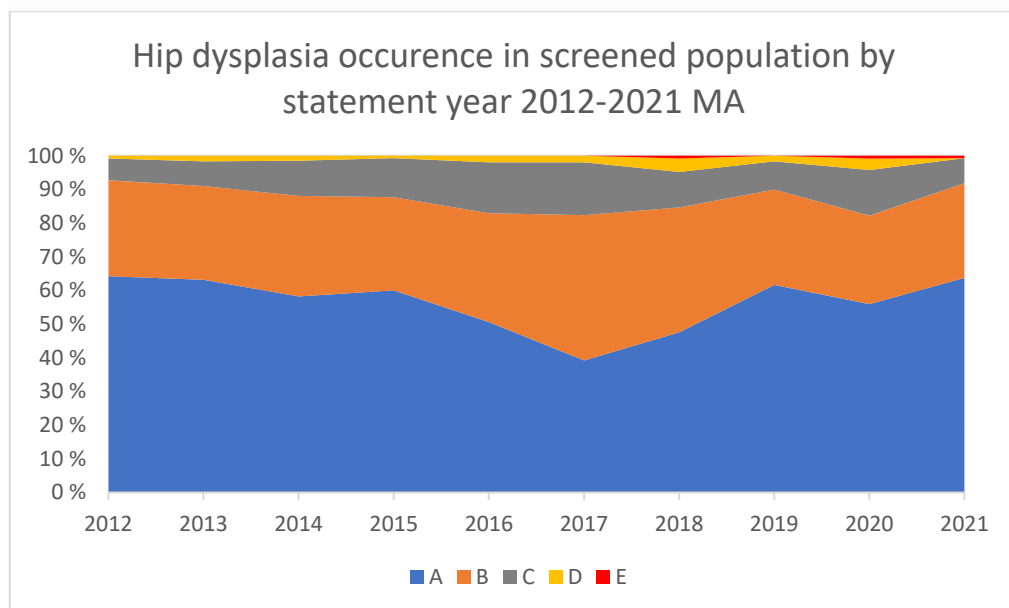
-Tested ataxia (SDCA 1 & 2 N/N or N/C, which can be paired only to N/N)

-Show result G (Good) at least 15 months of age

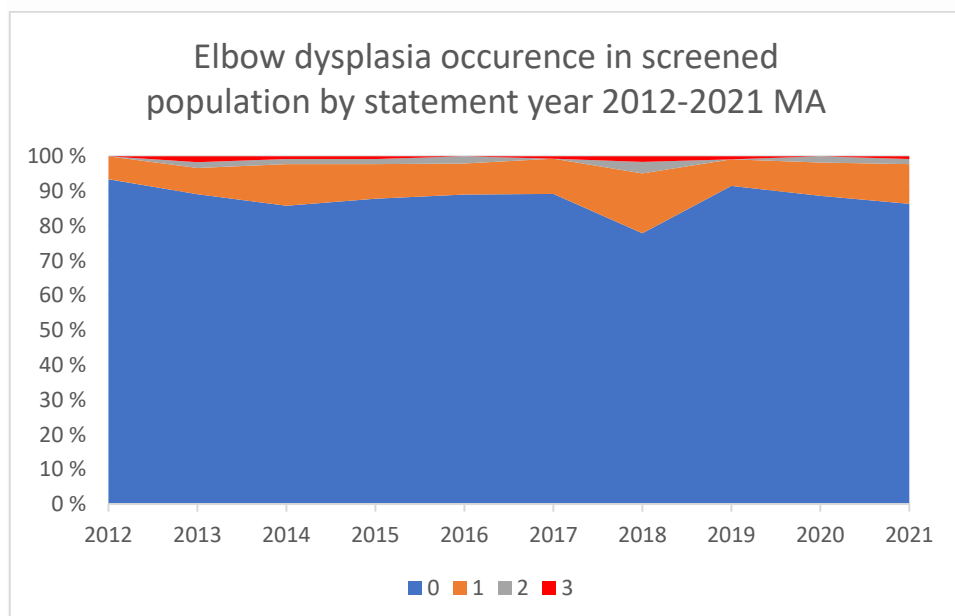
- Elbow grades counted together max 2, so that none of the grades is alone 2.
- Shoulders should be screened healthy
- Epileptic cannot be used in breeding. Combination that produced epilepsy, should not be renewed. Epileptic siblings' epilepsy status is unknown but waiting for more age is recommended and then be very careful when mating partner is chosen.

Average inbreeding in malinois in Finland is 1,03-3,36 %. Trend is lowering and some RISH-registered dogs are affecting also in Finnish population.

<https://jalostus.kennelliitto.fi/frmJalostustilastot.aspx?R=15.3&Lang=fi>

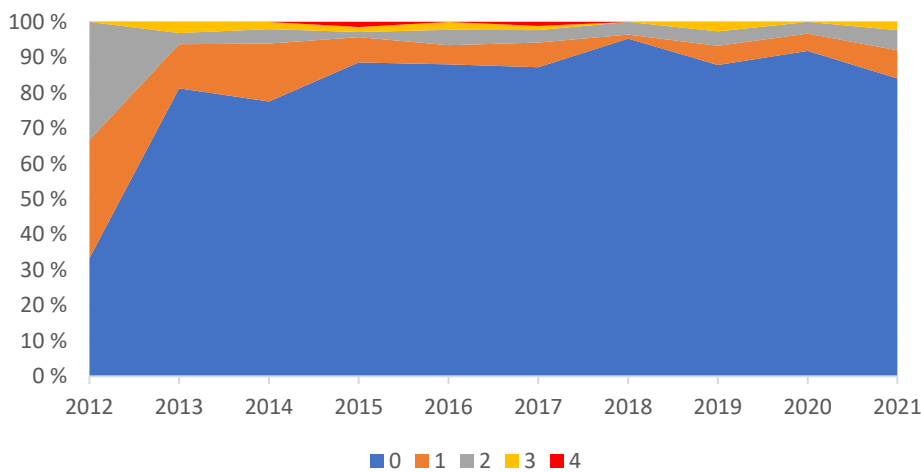


All lines in same graph (Koiranet)

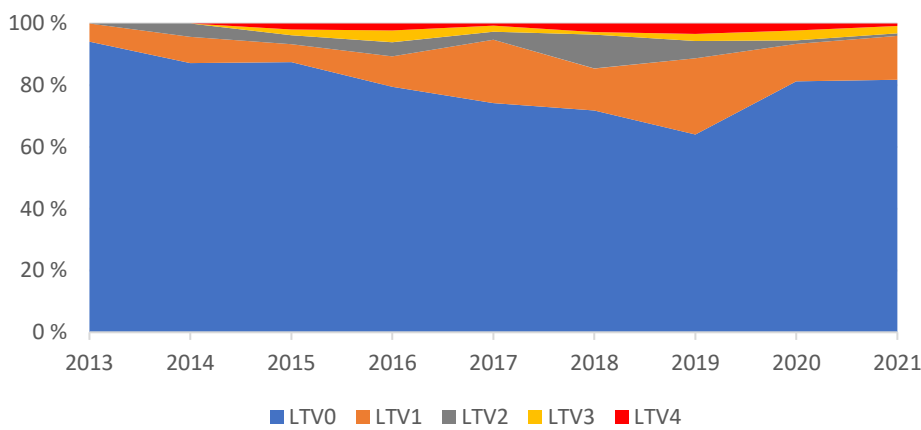


All lines in same graph (Koiranet)

Spondylosis by statement year 2012-2021 MA



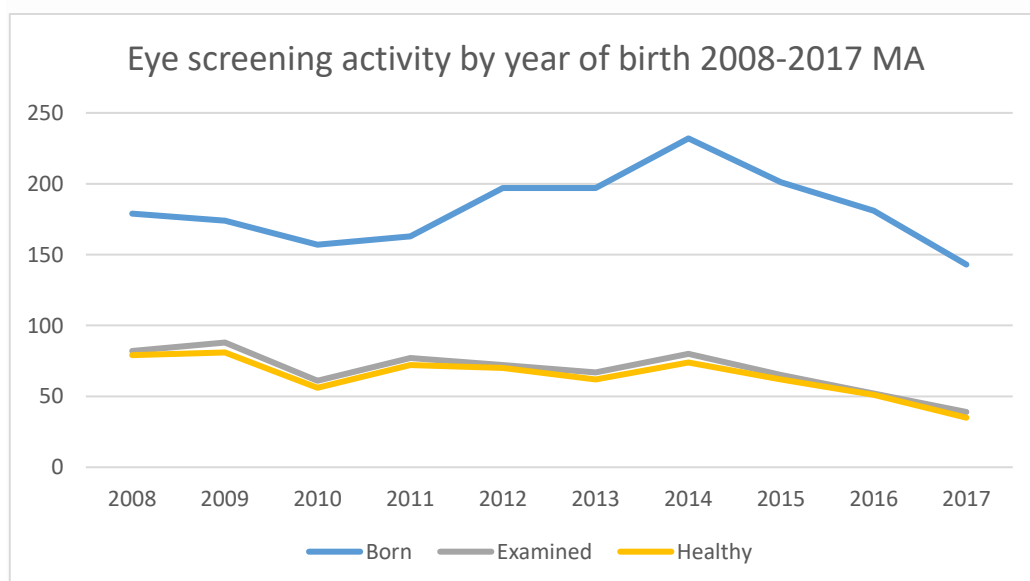
Lumbosacral transitional vertebrae, screening started 2013, by statement year 2013-2021 MA



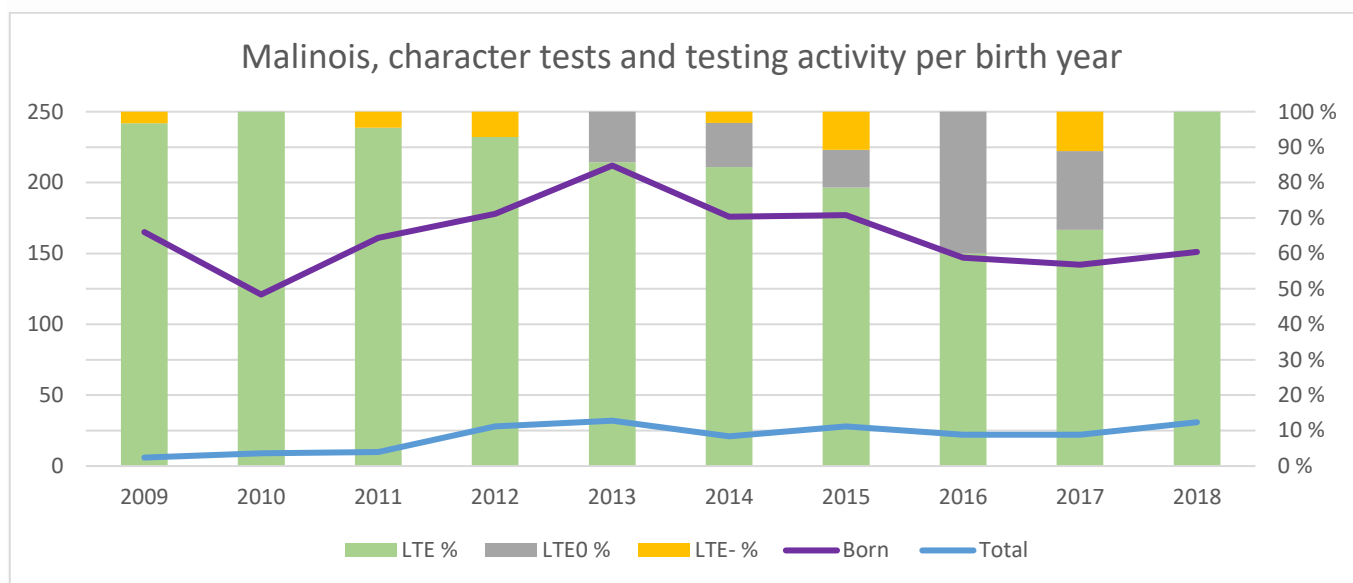
Spondylosis and LTV-screenings became recommended 2016 for Finnish Belgian shepherds in breeding recommendations. Dogs are mainly screened at age 2-3 years, when inherited spondylosis can be detected (minimum age 24 months) This doesn't tell the latter incidence for spondylosis and there has been discussion if screening at 2-3 years only is enough for this breed. LTV can be stated at 12 months old dog. (Koiranet, discussions in social media)

Eye disease findings by statement year 2012-2021

Diagnosis	Occurrences	Koiria
Anterior suture line cataract, found	2	2
Anterior suture line cataract, suspect	1	1
Atresia of lacrimal punctum, found	2	2
Cortical cataract, found	14	13
Cortical cataract, suspect	2	2
Distichiasis, found	2	2
Hypoplastic/micropapilla, found	3	3
Keratitis, found	3	3
Keratitis, suspect	3	2
No evidence of inherited eye diseases	918	688
Nuclear cataract, found	4	2
Nuclear cataract, suspect	2	2
Other insignificant cataract	6	6
Other retinal disease, found	1	1
Papillar coloboma, found	2	1
PHTVL/PHPV, grade 1 of sickness	1	1
PHTVL/PHPV, open diagnosis	1	1
Plasmoma, found	3	3
Posterior polar cataract, found	14	13
PPM, iris-iris, found	1	1
PRA, suspect	1	1
RD, geographical, found	2	2
RD, multifocal, found	6	6
Severity of cataract, mild	9	6
Severity of cataract, moderate	2	2
Severity of eye changes, mild	5	5



Screening activity on malinois is quite low. Keratitis (pannus) findings in official scheme are low, but pannus is also detected in unofficial eye checks, also in Finland EJ (not for breeding) registry reveals some pannus cases. Working dog database Käyttöbelgi.info also collects pannus data. (Koiranet)



Testing frequency in Finland is lower than in Sweden with MH, so result is only directive at its best. Most of malinois are tested thru exams and trials. (Koiranet)

Malinois, causes of death last 10 years

Cause of death	Average life span	Total
Accident	6 years 0 months	36
Age (natural or euthanasia)	13 years 1 months	112
Congenital defect or malformation of a puppy	0 years 11 months	2
Dead without diagnosis of illness	7 years 11 months	8
Endocrine disease	12 years 9 months	3
Euthanasia due to behavioral problems	4 years 8 months	25
Euthanasia, non-diagnosed	9 years 0 months	22
Heart disease	7 years 5 months	6
Immunological disease	2 years 11 months	4
Jecur or digestive disease	8 years 0 months	13
Neurological disorder	11 years 1 months	5
Other unspecified disease	7 years 11 months	23
Respiratory disease	1 years 6 months	2
Skeletal or articular disease	5 years 2 months	32
Skin or ear disease	6 years 6 months	1
Spinal disease	6 years 3 months	30
Tumor, cancer	10 years 3 months	57
Urinary disorder	6 years 1 months	3
Cause of death not specified	8 years 0 months	128
Altogether	8 years 9 months	512

Malinois owners have their own channels to inform about mortality, like Käyttöbelgi.info and commercial working dog. Unfortunately, Koiranet data doesn't give full data of reasons. (Koiranet)

Sweden

RAS: <https://www.skk.se/globalassets/dokument/rasdokument/ras-belgisk-vallhund.pdf> (All variations in the same)

In RAS you can see population structure on pages 4-11 "*Population och avelstruktur*" (Population and breeding structure)

*Short period goals and breeding recommendations for all variations are

- * Keep the amount for registrated malinois in 200 dogs/year.
- * Get more dogs to be character (MH) tested and get shot proof average over 1,5
- * Make breeders also look the family results when making breeding choices and use only ED free in breeding
- * Epilepsy awareness, not to use epilepsy producers or epileptics in breeding. Sibling can be used with caution.
- * Increase the number of conformation-evaluated dogs.

Breeding restrictions:

-Hips and elbows as in Finland HD A-B, ED screened, no other restrictions

Inbreeding in malinois in Sweden. Value varies between 1-1,8 %.

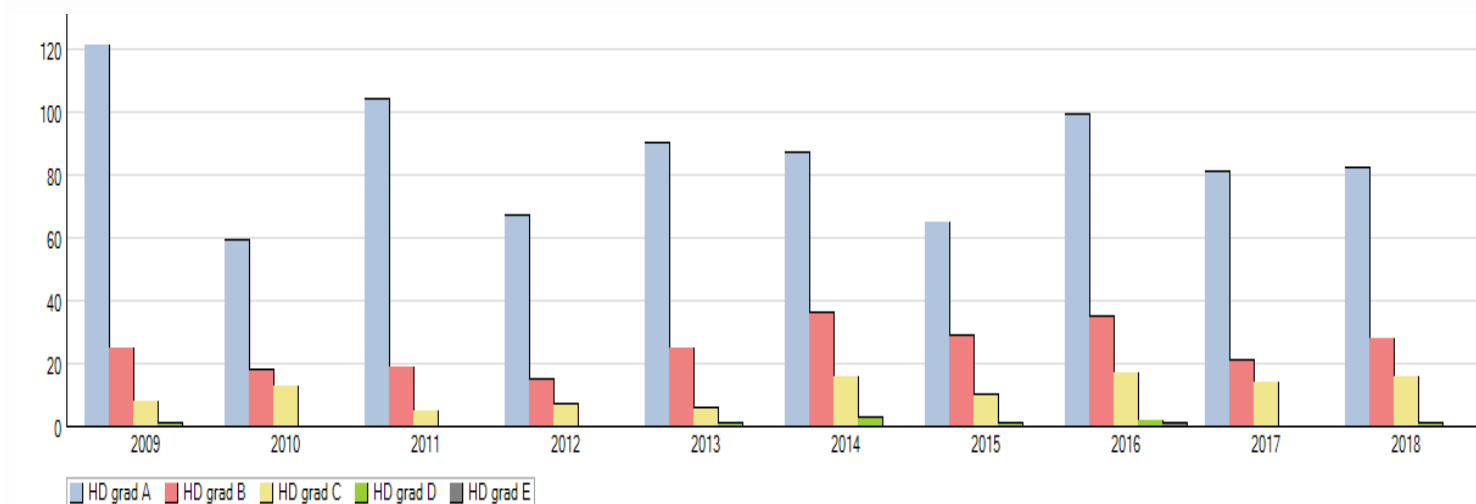
https://hundar.skk.se/avelsdata/Flikar.aspx?sida=Ras_info&id=109

Health statistics in Sweden

Overall health in malinois population in Sweden is good.

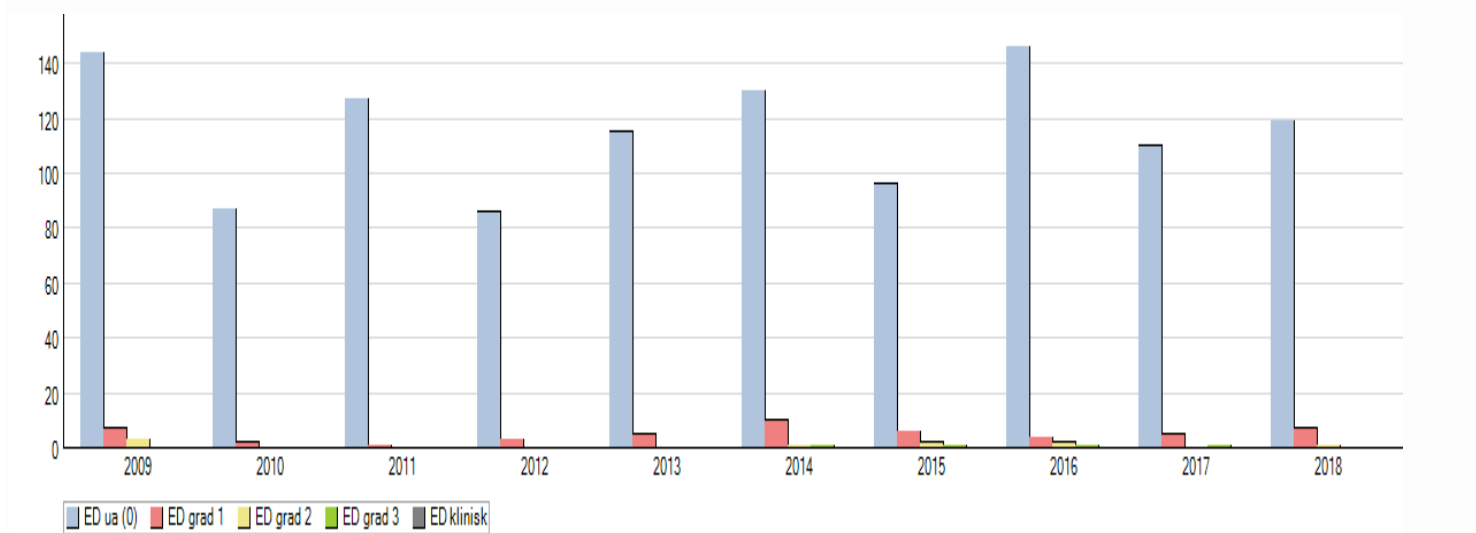
Source: https://hundar.skk.se/avelsdata/Flikar.aspx?sida=Ras_info&id=109 SKK Avelsdata

HD-statistics per birth year 2009-2018



Results seem to be quite even per year.

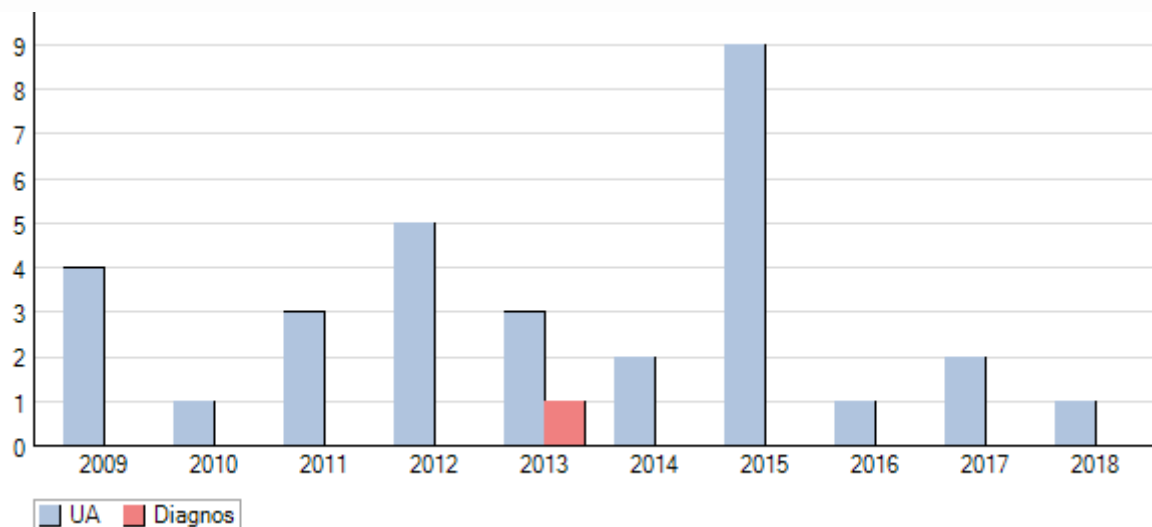
ED-statistics per birth year 2009-2018



As also in Finland, elbow dysplasia doesn't make significant effect on malinois' health.

Eye test statistics (ECVO) by birth year 2009-2018

UA=utan anmärkning – without markings, clear



Eye test numbers are small. One dog is reported to have vitreous prolapse. (SKK Avelsdata)

MH average values in excel (Sweden)

MH description in english: <http://www.lapphund.se/mheng.htm>

Evaluation describes dogs' reactions' strength - the bigger the number, the stronger the reaction.

Compilation per year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Amount born	199	139	172	125	169	192	130	204	165	180
Dogs with recognised character status	105	67	104	64	73	86	65	102	75	70
of wich										
- males	51	35	55	38	45	45	31	51	44	32
-females	54	32	49	26	28	41	34	51	31	38
1a. Contact greeting	3,9	3,8	3,9	4	3,9	4	3,9	3,9	3,9	3,9
1b. Contact cooperation	3,6	3,6	3,4	3,4	3,3	3,7	3,5	3,6	3,3	3,3
1c. Contact handling	3,2	3,2	3,2	3,2	3,3	3,4	3,1	3,4	3	3,3
2a. Play 1 play drive	4,5	4,5	4,4	4,5	4,5	4,3	4,4	4,3	4,2	4,3
2b. Play 1 gripping	4,2	4,1	4,2	4,2	4,3	4,1	4	4,3	4,1	4,1
2c. Play 1 grip and pull	4,3	4,3	4,4	4,1	4,3	4,2	4,2	4,2	4,2	4,2
3a.1. Chasing	2,8	2,9	3,1	3	3,2	3,4	2,8	2,9	2,6	3,3
3a.2. Chasing	3,1	3,4	3,3	3,2	3,4	3,7	3,2	3,2	3,4	3,3
3b.1. Gripping	2,5	2,8	2,7	2,7	3	3,2	2,6	2,5	2,4	2,8
3b.2. Gripping	3	3,6	3,4	3,4	3,8	3,8	3,2	3,2	3,3	3,3
4. Activity level	3,4	3,5	3,2	3,5	3,4	3,3	3,3	3,2	3,5	3,4
5a. Distance - interest	3,5	3,6	3,5	3,3	3,6	3,5	3,3	3,4	3,5	3,3
5b. Distance reaction to threat/aggression	1,4	1,6	1,5	1,3	1,5	1,1	1,2	1,5	1,5	1,4
5c. Distance - curiosity	4	3,9	4	3,7	4	4,1	3,9	3,6	3,9	3,6
5d. Distance - willing to play	4,3	4,3	4,3	3,9	4,4	4,3	4,3	3,9	4,3	4
5e. Distance - cooperation	3,3	3,1	3,4	3,1	3,1	3,2	3,3	3	3,2	2,6
6a. Surprise-fear	2,3	2,6	2,5	2,5	2,6	2,6	2,2	2,5	2,4	2,6
6b. Surprise- threat/aggression	1,9	1,9	1,9	1,7	2	1,6	1,9	1,7	1,8	1,8
6c. Surprise- curiosity	3,8	3,5	3,6	3,3	3,5	3,6	3,3	3,5	3,6	3,7

6d. Surprise, remaining fear	1,3	1,4	1,3	1,2	1,4	1,2	1,3	1,3	1,1	1,2
6e. Surprise, remaining interest	1,8	1,9	1,7	1,8	1,6	1,7	1,8	1,8	1,9	1,5
7a. Sound - fear	2,1	2,4	2,5	2,4	2,3	2,6	2,7	2,6	2,2	2,4
7b. Sound - curiosity	4,5	4,5	4,3	4,1	4,3	4,2	4,1	4	4,5	4,3
7c. Sound, remaining fear	1,2	1,1	1,2	1,1	1,1	1,1	1,1	1	1,1	1
7d. Sound, remaining curiosity	1,6	1,7	1,6	1,7	1,4	1,6	1,6	1,4	1,5	1,5
8a. Ghost - threat, aggression	2,7	2,5	2,7	2,3	2,5	2,2	2,5	2,4	2,5	2,3
8b. Ghost - control	4	4	4,1	3,8	4	4,1	4,1	3,9	4	4,1
8c. Ghost - fear	2,4	2,4	2,4	2,5	2,3	2,4	2,3	2,5	2,2	2,8
8d. Ghost - curiosity	3,6	3,4	3,4	3,4	3,4	3,5	3,3	3,4	3,4	3,4
8e. Ghost - contacting	3,4	3,5	3,6	3,6	3,5	3,6	3,2	3,5	3,4	3,5
9a. Willingness to play	4,4	4,4	4,3	4,3	4,4	4,2	4,3	4,1	4,2	4,4
9b. Willingness to grip	4	3,9	4,1	4	4,1	4,1	4	4,1	4,1	4,1
10. Reaction to gunshots	1,2	1,2	1,1	1,1	1,1	1,1	1,1	1,3	1,1	1,2

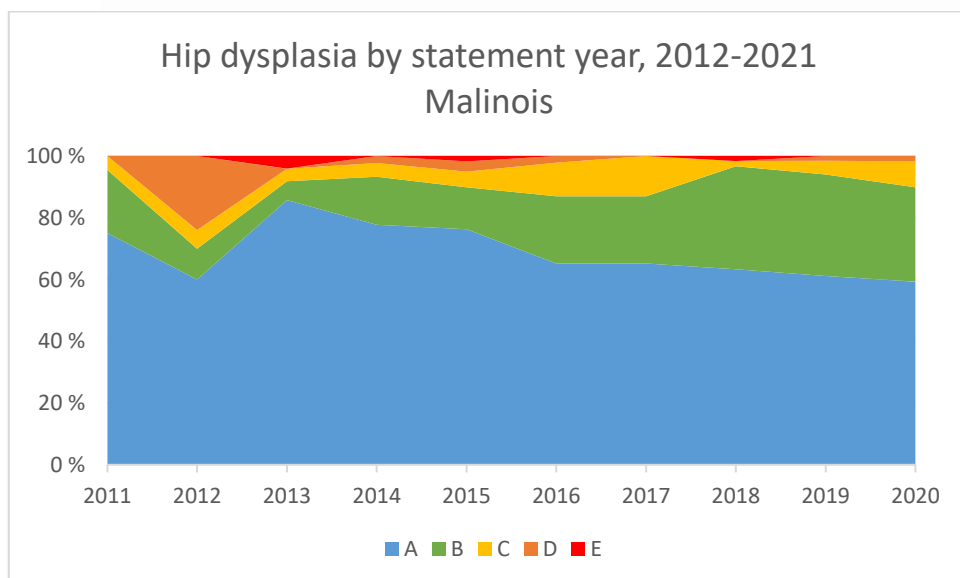
Reaction on shooting on Swedish malinois is small.

Norway

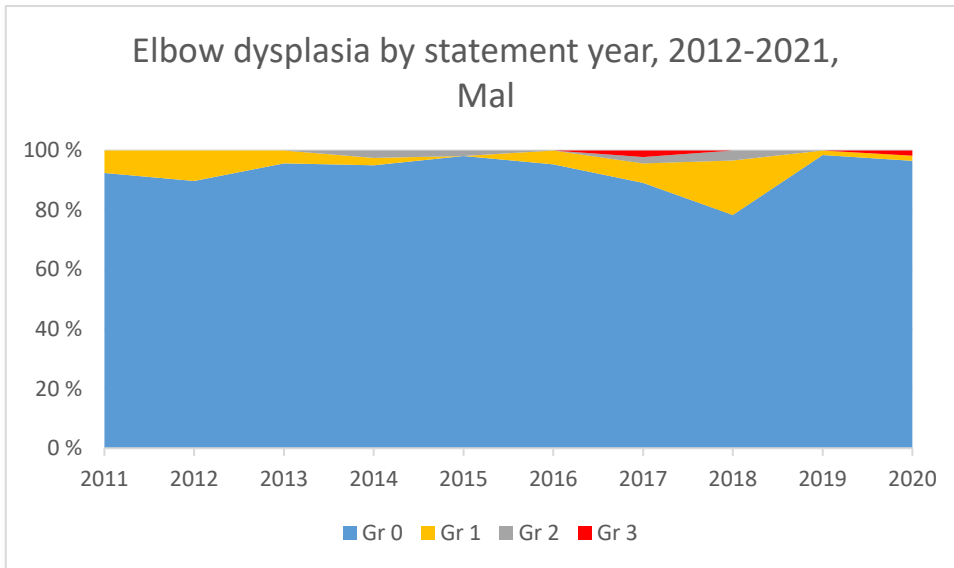
Norwegian breedclubs Breeding strategy RAS is from older sample and can be found in here:

<https://www.nkk.no/getfile.php/131646-1528360203/Filer/RAS/RAS/Belgisk%20f%C3%A5rehund%20RAS%20v1.pdf>

- HD A-B mandatory for full registration
- Inbreeding coefficient and matador breeding should be kept on correct level
- In health issues HC (hereditary cataract) is noted as biggest issue in eye tests.
- Epilepsy and cancers are noted. In here also gastric cancer is mentioned as rising health problem
- Hypothyreosis is mentioned mainly on malinois concern
- In summary breed is considered healthy and in breeding the entity should always be understood. Working quality of the dogs should be maintained. In conformation better fronts are needed



Severe dysplasia is not increasing, but the trend seems to be towards a lower number of A-hips (NKK Dogweb)



Elbow dysplasia doesn't seem to be severe health issue for malinois in Norway (NKK Dogweb)

Eye tests in Norway, malinois

On statement years 2012-2021 95 malinois is tested. 3 cataracts were found, 1 mRD, 1 cilia and 2 working dog retinopathies. Rest were eye tested healthy. Eye test is mainly done only once in dog's lifetime.

Europe

Belgium

Belgium has national laws of health of the dogs, and dogs should be bred accordingly. Belgians Shepherd is guarded also by national kennel club *KMSH/SRSH* as a national breed.

For registration you need mandatory DNA parentage test according ISAG 2006 or other with same quality. Breed club *Koninklijke Unie der Clubs voor Belgische Herdershonden vzw./ l'Union Royale des Clubs de Bergers Belges asbl. K.U.C.B.H.-U.R.C.B.B.* doesn't have breeding programs or goals and no official statistics are available.

CJM-publication is done in Belgium by kennelclub.

Holland

There are two breed clubs in Holland. Registration demands are by national kennel club *Raad van Beheer (RvB)* and their breeding rules (*Verenigingsfokreglement (VFR)*) that apply to all breeds. Belgians need to have age and inbreeding demands fulfilled for registration.

Breed clubs have small differences in orientation in other health issues

BHCN (Belgische Herder Club Nederland)	NVBH Nederlandse Vereniging voor Belgische Herdershonden)
<ul style="list-style-type: none"> • Gastric Cancer • Epilepsy • Elbow Dysplasia • LTV (Extra Werwel) (extra vertebrae) • Ataxia • Degenerative myelopathy DM • MMM, Musculus masseter myositis, Kaakmyositis=jaw myositis 	<ul style="list-style-type: none"> • HD/ED • Eye tests • Gastric Cancer • Ataxia • Epilepsy

Germany

VDH defines basic registration limits and breed clubs (4 registering clubs) define minimum requirements for health and character and organise possible evaluations.

Breed Clubs have small differences in orientation in other health issues. Hips A1-B2, ED 0-GF (*Grenzfall=borderline, 1*) in all clubs

CHEN	TEST	GENE	PROTEIN	MUTATION	N	%	%	%	N	STAT
CHIEN DE BERGER BELGE	MYELOPATHIE DEGENERATIVE	SOD1A	SOD1	c.118G>A	352	9%	5%	0%	660	Non
	DEGENERESCENCE SPONGIEUSE ATAXIE CEREBELLEUSE TYPE 1	SDCA1	KCNJ10	c.986T>C	335	9%	6%	0%	440	Non
	DEGENERESCENCE SPONGIEUSE ATAXIE CEREBELLEUSE TYPE 2	SDCA2	ATP1B2	c.130_131ins227	334	9%	7%	0%	440	Non

Nbre de résultats sur la période=number of tests on the period

Résultats/Chiens Confirmés=Results, confirmed dogs

Porteurs sains=healthy carriers

Atteints=affected

Nbre de tests annuel= number of yearly tests

objectif atteint en 2020= goal achieved in 2020?

Breed club has collected results of hip and elbow dysplasia on quarterly reports:

<https://www.centrale-canine.fr/club-francais-du-chien-de-berger-belge/articles/dysplasie-resultats>

Click "CLIQUEZ-ICI" to open the pdf-file

Worldwide results of ataxia and degenerative myelopathy testing:

<https://www.centrale-canine.fr/club-francais-du-chien-de-berger-belge/articles/suivi-sdca-et-md>

French club pays a lot of interest in standard and conformation. Here is a link to comments and clarifications of the structure:

<https://www.centrale-canine.fr/sites/default/files/2021-06/COMMENTAIRES%20DU%20STANDARD.pdf> (In French only)

Multiple drawings and pictures of correct and incorrect type and structure.