

Get a GRIHP! Belgian Shepherd (Tervueren)

Gathered by J Uski

Breed at Glance - Belgian Shepherd (Tervueren)

One of the four variations of Belgian Shepherd. Reddish brown (fauve) or grey or sand coloured (sable) long-haired shepherd, that has strength and elegance in one. Used as companion, herding, and working dog, obedient, highly trainable and loyal guard.

Key Health Conditions - Belgian Shepherd (Tervueren)

- Hip and elbow dysplasia
- Eye conditions
- autoimmune diseases
- gastric cancer
- epilepsy

Statistics and Health Strategies

Tervueren Finland

JTO: <https://jalostus.kennelliitto.fi/RotuPDF.ashx?R=15.4&T=2>

*Issues noted in character are nervousness, shyness, lack of courage and reaction on shooting.

*Health concerns are missing testicles, autoimmune diseases, epilepsy, gastric issues, missing teeth and bad bites. Lack of data of spinal issues is noted.

*In type and conformation issues are weak or atypical structure, weakness in jaws and too deep, small and oblique eyes.

*Earlier goals of breeding strategy in Finland are not achieved in any part of the breeding 2015-2021

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

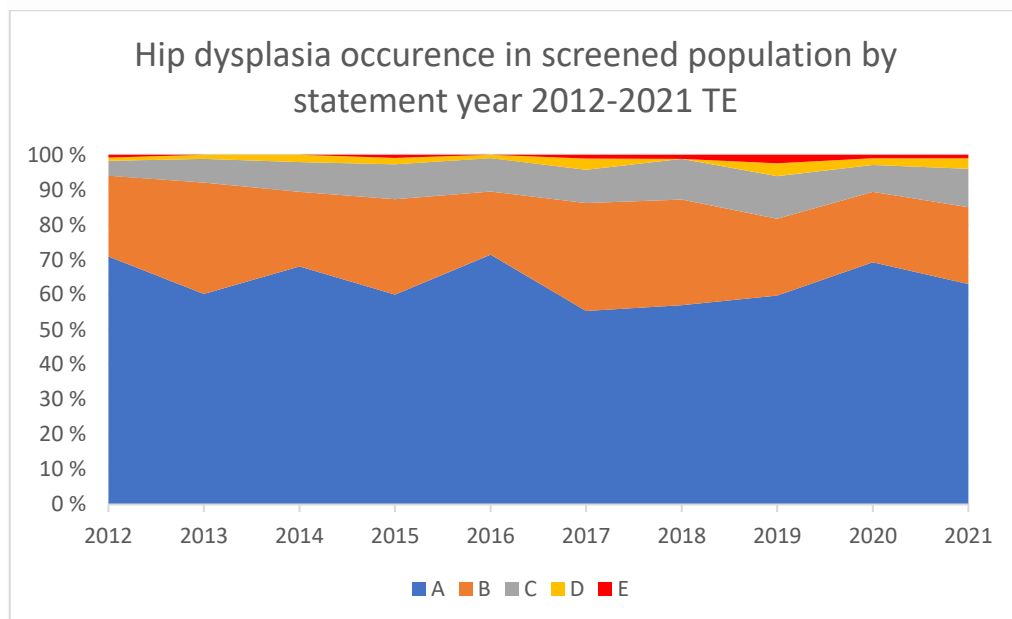
-Elbow grades counted together max 2, so that none of the grades is alone 2.

-Shoulders should be screened healthy

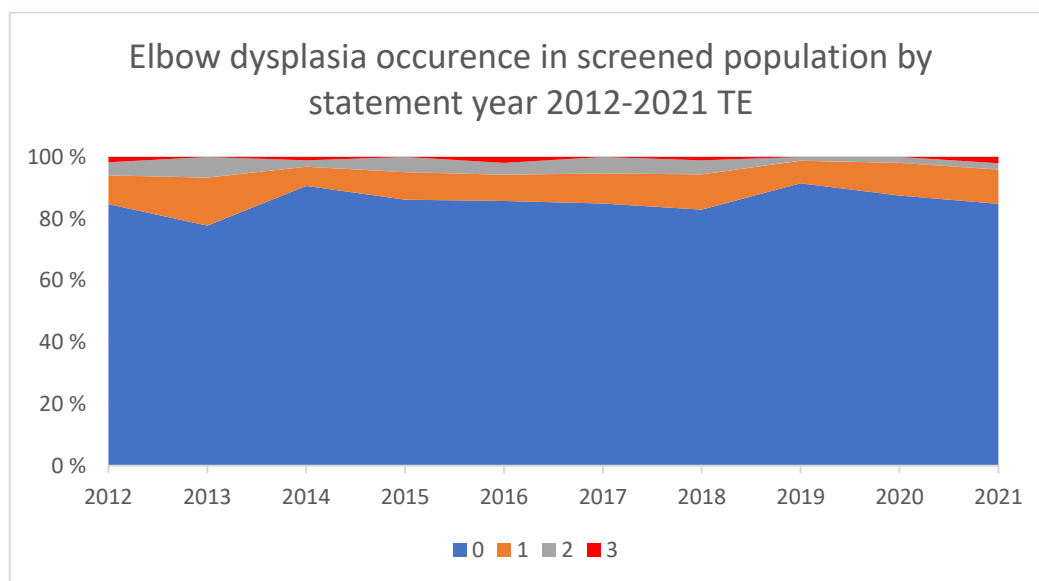
-Epileptic can not be used in breeding. Combination that produced epilepsy, should not be renewed. Epileptic siblings' epilepsy status is unknown but waiting for more age is recommended and then be very careful when mating partner is chosen.

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Inbreeding varies between 1,33 – 2,90% between registration years 2011-2021. Number can be considered good.

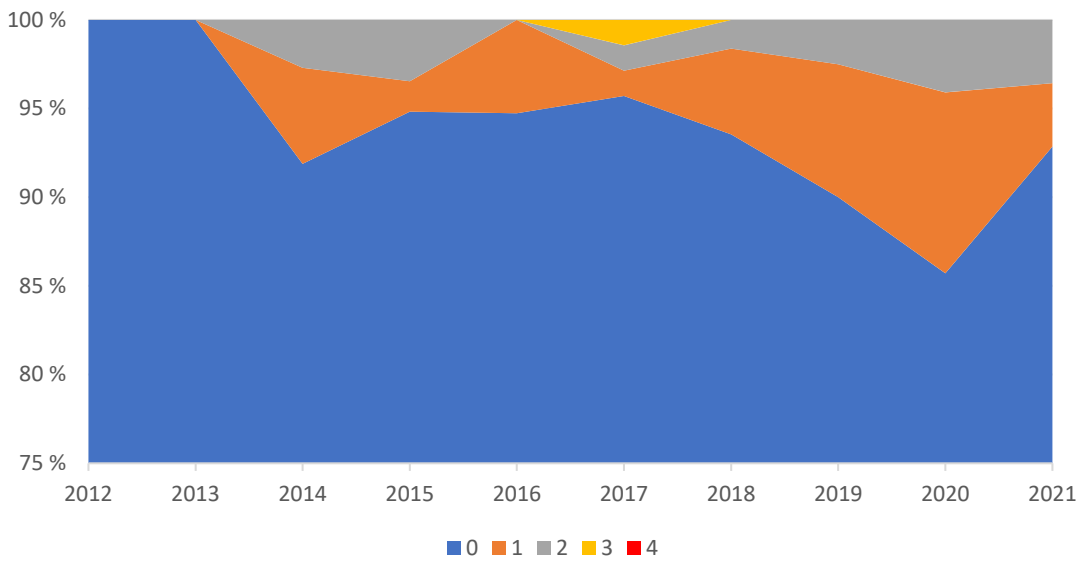


Graphic shows, that overall HD situation remains good. Number of A-hips could be higher. (Koiranet)



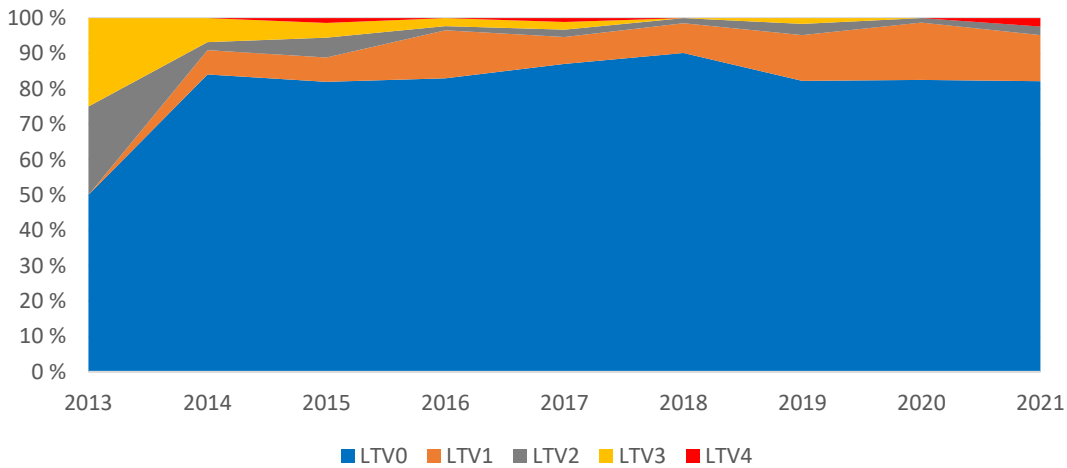
Also elbow situation in tervuerens is very good in Finland. (Koiranet)

Spondylosis statistic by statement year 2012-2021 TE



Spondylosis screening 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. (Koiranet, discussions in social media)

Lumbosacral transitional vertebrae Tervueren by statement year 2013-2021

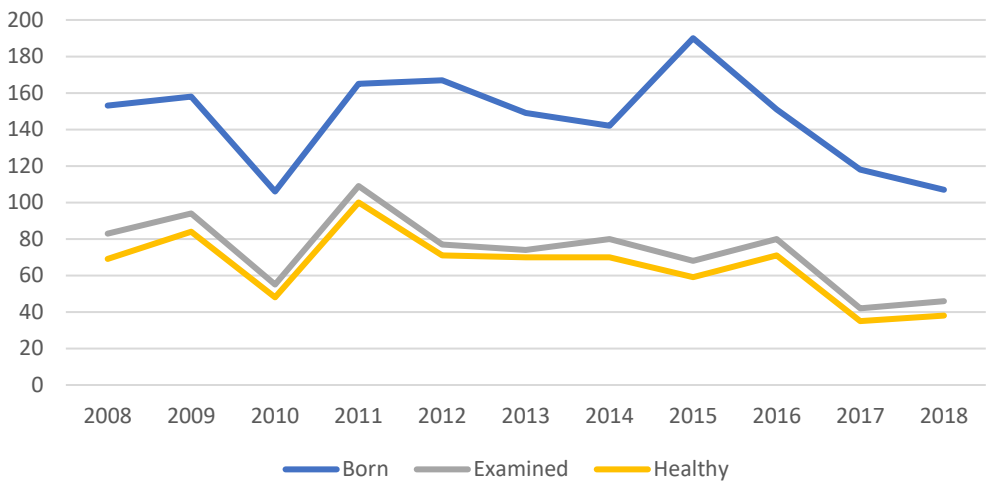


Findings in LTV-screenings are increasing. FBSD general meeting in fall 2021 expressed that LTV-screening should be made mandatory for registration. Proposal is coming in meeting 2022 (Koiranet, meeting diary 2022)

Eye disease findings by statement year 2012-2021

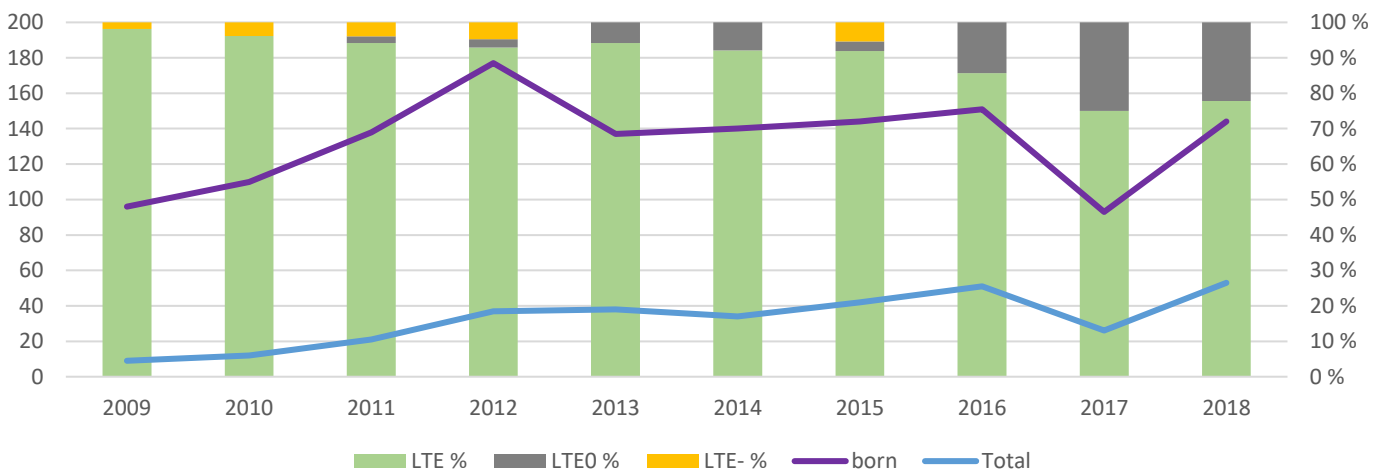
Diagnosis	Occurrences	Koiria
Anterior suture line cataract, found	3	3
Anterior suture line cataract, suspect	2	2
Cataract without further localisation, found	1	1
Cataract without further localisation, suspect	1	1
Corneal dystrophy, found	3	2
Cortical cataract, found	26	22
Cortical cataract, suspect	2	2
Distichiasis, found	9	8
Eversion of nictitating membrane, found	1	1
Iris hypoplasia, found	1	1
KCS, found	1	1
Keratitis, found	12	12
Keratitis, suspect	1	1
No evidence of inherited eye diseases	1037	780
Nuclear cataract, found	2	2
Other insignificant cataract	6	6
Other insignificant cataract, suspect	1	1
Other retinal disease, found	1	1
PHTVL/PHPV, grade 1 of sickness	5	5
PHTVL/PHPV, grade 2 - 6 of sickness	2	2
Plasmoma, found	4	4
Posterior polar cataract, found	25	18
Posterior polar cataract, suspect	1	1
PPM, iris-cornea, found	1	1
PPM, iris-iris, found	33	27
PPM, persistent pupillary membrane, found	1	1
PRA, found	1	1
Punctate cataract, found	1	1
RD, multifocal, found	1	1
Severity of cataract, mild	12	11
Severity of cataract, moderate	6	5
Severity of eye changes, mild	28	25
Severity of eye changes, moderate	3	3
Severity of eye changes, severe	1	1

Eye screening activity by year of birth 2008-2017 TE



Approximately half of the born tervuerens are eye checked in Finland. Mainly they are healthy. Earlier cataracts were considered biggest health problem in eyes, but now there is increasing number of pannus/plasmoma findings. Autoimmune base of this disease is linked to other AI-issues, so earlier screening frequency was shortened from 24 months to 12 months in general meeting 2022 (Koiranet, meeting diary 2022)

Tervueren, character tests and testing activity per birth year



Testing frequency in Finland is lower than fi. in Sweden with MH, so result is only directive at its best. Main cause for not approved test is reaction to shooting (Koiranet)

Tervueren, causes of death last 10 years

Cause of death	Average life span	Total
Accident	4 years 11 months	15
Age (natural or euthanasia)	13 years 10 months	163
Dead without diagnosis of illness	9 years 2 months	9
Endocrine disease	8 years 1 months	5
Euthanasia due to behavioral problems	5 years 7 months	18
Euthanasia, non-diagnosed	11 years 0 months	33
Eye disease	3 years 4 months	2
Heart disease	9 years 7 months	9
Immunological disease	7 years 1 months	5
Jecur or digestive disease	8 years 0 months	15
Lost	1 years 8 months	1
Neurological disorder	6 years 6 months	11
Other unspecified disease	9 years 11 months	26
Respiratory disease	9 years 9 months	2
Skeletal or articular disease	7 years 3 months	22
Spinal disease	10 years 1 months	19
Tumor, cancer	9 years 10 months	123
Urinary disorder	10 years 1 months	7
Cause of death not specified	11 years 10 months	125
Altogether	10 years 11 months	610

Statistics show clearly, that tervueren live long and healthy life. Increasing issue is cancer, especially gastric and bone cancers. Reporting activity should be higher. (Koiranet)

Tervueren 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 population size for tervuerens in 100 registrated 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.
- *In population is noted registration numbers getting smaller in tervuerens and at the same time growing on malinois

Breeding restrictions:

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

Average inbreeding in groenendael in Sweden. Value stays in 5 generation between 0,7-1,8 % in data *inavelsgard*=inbreeding degree

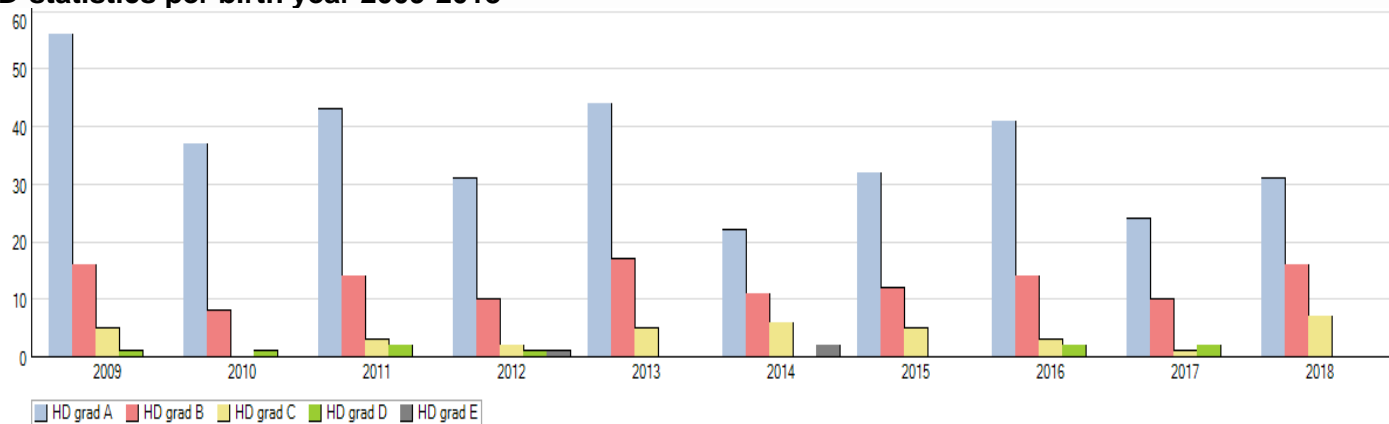
https://hundar.skk.se/avelsdata/Flikar.aspx?sida=Ras_info&id=110

Health statistics in Sweden

Overall health in terriere population in Sweden is very good.

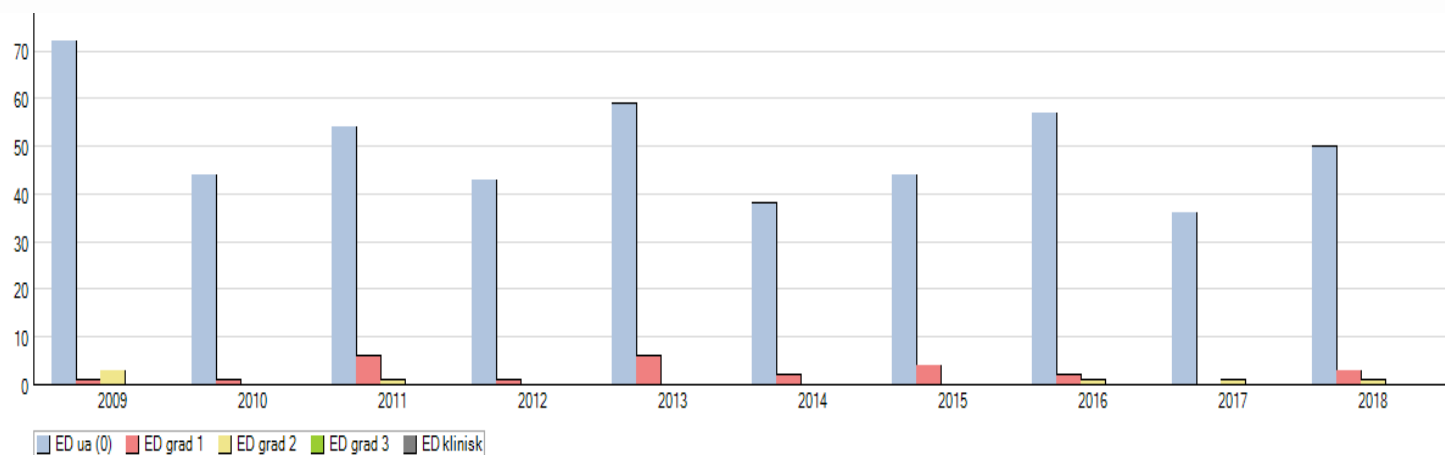
Source: https://hundar.skk.se/avelsdata/Flikar.aspx?sida=Ras_info&id=110 SKK Avelsdata

HD-statistics per birth year 2009-2018



Tendency seems to correlate in results in Finland. Earlier in both Finland and Sweden only A-hips were used in main breeding lines. After accepting more B-hips in breeding or combining two B-hipped, results are not that good as earlier.

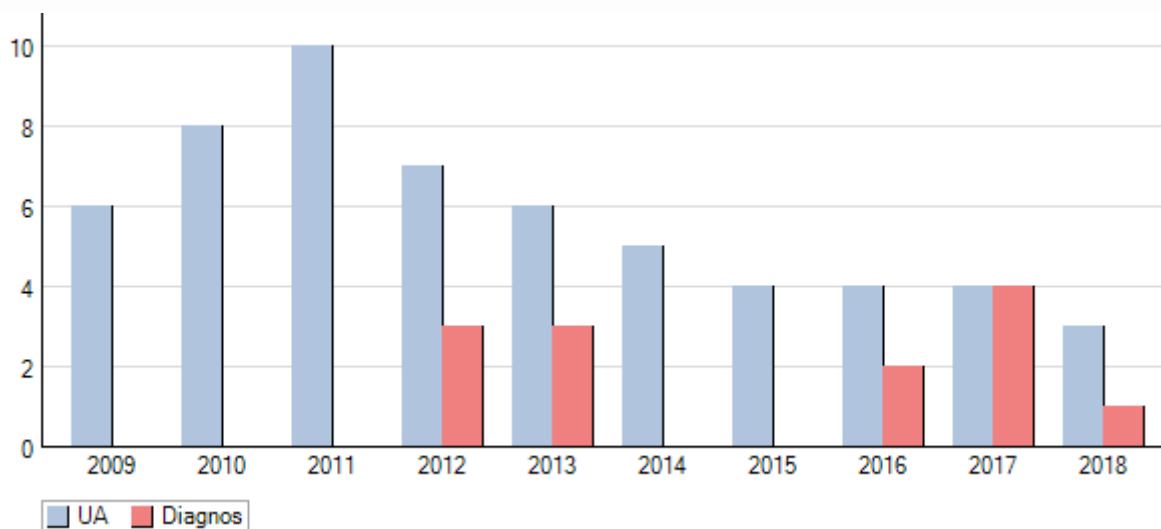
ED-statistics per birth year 2009-2018



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

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

UA=utan anmärkning – without markings, clear



In diagnosed dogs 7 are PPM and 8 different types of cataracts, some marked not inherited. Pannus is marked as ua – so in healthy numbers. In Sweden amount of eye checks is very small, so this doesn't give proper accuracy in eye disease in the total population in Sweden.

MH average values in excel (Sweden)

Compilation per year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Amount born	155	139	79	98	83	111	70	62	96	74	87
Dogs with recongnised character status	46	45	24	42	20	45	25	26	27	15	35
of wich											
- males	18	25	13	24	9	22	9	10	15	12	13
-females	28	20	11	18	11	23	16	16	12	3	22
1a. Contact greeting	3,7	3,7	3,8	4	3,8	3,8	3,9	4,1	3,8	3,9	3,9
1b. Contact cooperation	3,3	3,4	3,3	3,5	3,6	3,3	3,4	3,5	3,1	3,7	3,2
1c. Contact handling	3,3	3,2	3,3	3,4	3,1	3,1	3,2	3,2	2,8	3,1	3
2a. Play 1 play drive	3,9	4,2	4	4	4,1	3,9	3,9	4,1	3,9	4,1	4
2b. Play 1 gripping	3,3	3,8	3,8	3,5	4	3,5	3,8	3,9	3,6	3,7	3,9
2c. Play 1 grip and pull	3	3,6	3,1	3,3	4,1	3,3	3,7	3,9	3,5	3,3	3,3
3a.1. Chasing	2,9	3,3	3,1	3,2	3,5	3,3	3,1	3,4	2,7	2,1	3,7
3a.2. Chasing	3,5	3,5	3,2	3,5	3,5	3,4	3,2	3,7	3,2	2,3	3,5
3b.1. Gripping	2,3	2,6	2,3	2,7	2,9	2,7	2,8	2,9	2,3	1,6	3
3b.2. Gripping	3,1	3,1	2,5	3,3	3,7	3,2	3,3	3,5	3	2	3,7
4. Activity level	3	3,1	3,1	3,1	3,3	3,2	3	3,6	3,1	3,3	3,1
5a. Distance - interest	2,8	2,9	3,1	3	3,5	2,9	2,9	3,2	3	2,9	2,9
5b. Distance reaction to threat/aggression	1,3	1,2	1,2	1,6	1,2	1,1	1,6	1,1	1,6	1,3	1,1
5c. Distance - curiosity	2,8	3,1	3	3,3	3,6	3,2	2,8	3,5	2,9	2,7	3,1
5d. Distance - willing to play	2,4	3,2	3,1	3,1	3,7	3	3	3,5	3,1	2,7	3,2
5e. Distance - cooperation	1,9	2,5	2,3	2,7	2,8	2,4	2,3	2,4	2,4	2,1	2,7
6a. Surprise-fear	2,9	2,8	2,6	2,7	2,4	2,5	3	2,6	2,7	2,9	2,2
6b. Surprise-threat/aggression	1,7	1,4	1,9	1,8	1,6	1,4	1,6	1,6	1,8	1,7	1,6
6c. Surprise- curiosity	2,9	3,3	2,8	3,5	3,6	3	2,9	3,1	2,9	2,7	3,2
6d. Surprise, remaining fear	1,7	1,6	1,5	1,5	1,3	1,5	1,6	1,2	1,8	2,2	1,3
6e. Surprise, remaining interest	1,7	1,6	1,8	1,6	2	1,5	1,9	2	1,3	1,5	2
7a. Sound - fear	2,7	2,3	2,7	2,6	2,2	2,9	2,8	2,2	2,8	2,9	2,2
7b. Sound - curiosity	3,9	4,2	3,8	4,5	4,3	4	4,2	4,7	4,4	4,3	4,2
7c. Sound, remaining fear	1,2	1,1	1,1	1	1,1	1,1	1,3	1,1	1	1,2	1,2
7d. Sound, remaining curiosity	1,3	1,4	1,5	1,6	1,4	1,4	1,9	1,8	1,4	1,7	1,5
8a. Ghost - threat, aggression	2,3	2,1	2,3	2,3	1,9	1,8	1,8	2,2	2,1	2,2	2,3
8b. Ghost - control	3,6	3,5	3,7	3,8	3,7	3,7	3,4	3,9	3,5	3,7	4
8c. Ghost - fear	2,5	3	2,5	2,7	2,4	2	2,2	2,5	2,5	2,4	2,3
8d. Ghost - curiosity	3,2	2,6	3,2	3,5	3,4	3,3	3,7	2,9	2,6	3,3	3,4
8e. Ghost - contacting	3,3	3	3	3,5	3,4	3,6	3,6	3	2,9	2,9	3,9
9a. Willingness to play	3,6	3,8	3,8	3,7	3,7	3,7	3,7	3,9	3,7	3,8	3,8
9b. Willingness to grip	3,2	3,5	3,1	3,4	3,7	3,4	3,5	3,9	3,6	3,3	3,8
10. Reaction to gunshots	1,8	1,5	1,7	1,6	1,6	1,6	1,6	1,2	1,3	2,3	1,5

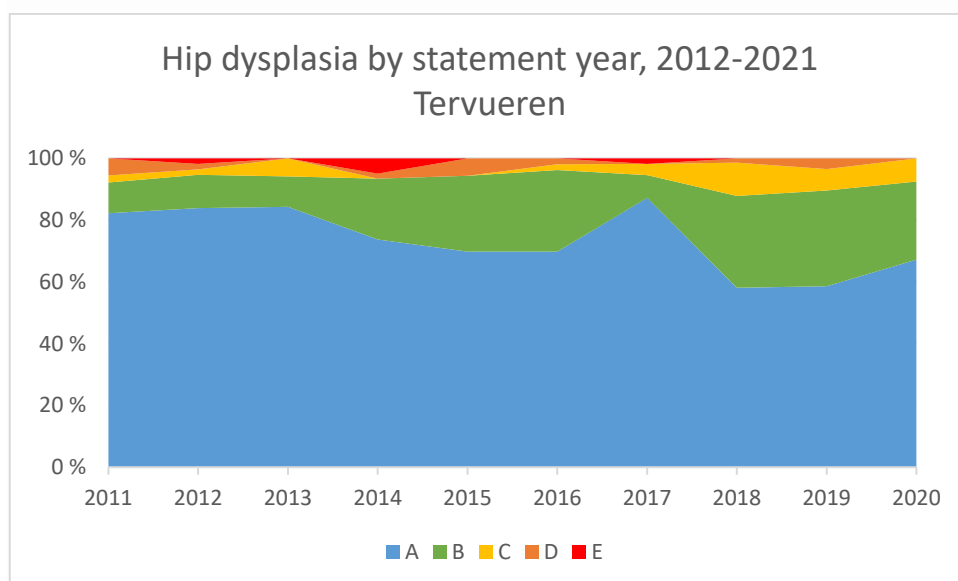
Norway

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

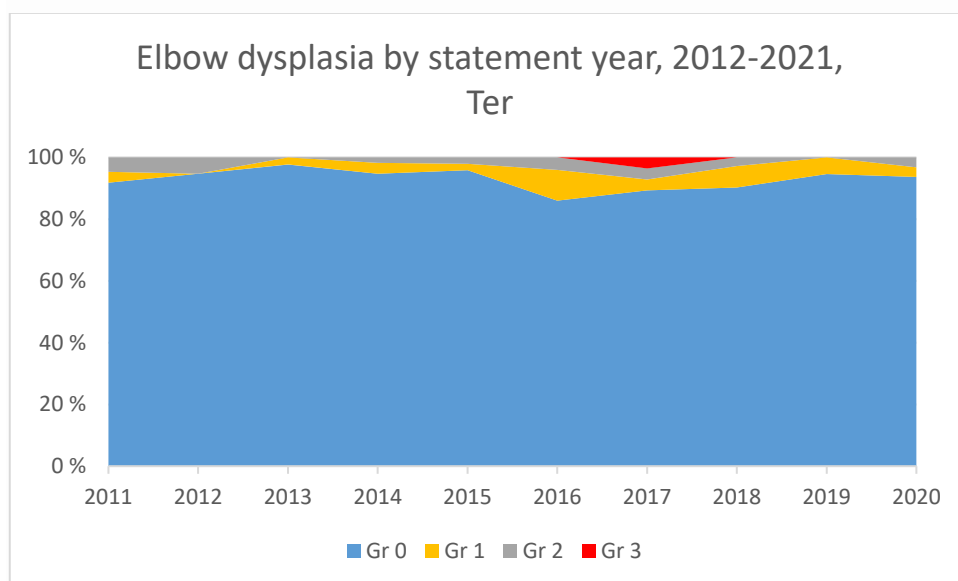
<https://www.nkk.no/getfile.php/131646-1528360203/Filer/RAS/RAS/Belgisk%20f%C3%A5rehund%20RAS%20v1.pdf>

- 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

Health statistics, *source NKK Dogweb*

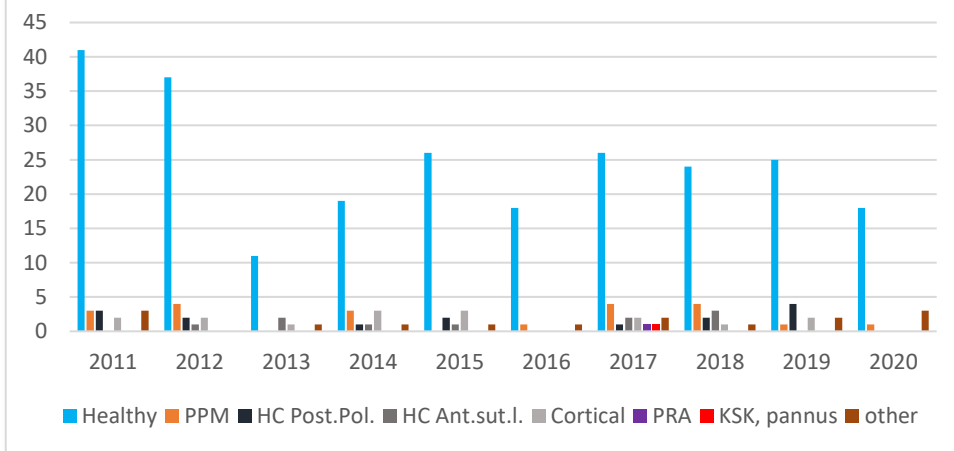


Overall situation is fairly good and trend looks the same as in other Nordic countries



Elbow dysplasia in Norway is very good. Severe ED is only random.

Eye check findings by statement year 2012-2021, Tervueren



In Norway eye checking is not very common practise, and findings are very random. Pannus is considered non-inherited eye disease and not always diagnosed.

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.

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 registrating 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

DKBS (<i>Deutscher Klub für Belgische Schäferhunde</i>)	BSD (<i>Belgische Schäferhund Deutschland e.V.</i>)	BSB (<i>Belgische Schäferhunde Berlin e. V.</i>)	DMC (<i>Deutscher Malinois Club</i>)
<ul style="list-style-type: none"> Database Dogbase HD/ED Ataxia Epilepsy LTV (LÜW) 	<ul style="list-style-type: none"> No named database If breeding committee suspects health issue in dog, they can demand checks proved producers of health defects might get breeding restriction Inbreeding max 25% 	<ul style="list-style-type: none"> DNA ISAG 2006 Character test or 2 tries in BH (behaviour test) if dog doesn't pass, breeding ban. intervariety breeding needs special permission No own database, but links to Czech database and commercial working-dog 	<ul style="list-style-type: none"> Club for malinois only Mandatory LTV (LÜW) Mandatory SDCA 1 and 2, and CJM at least on another parent has to be N/N (clear) PDF formed loadable health lists of tested dogs in HD, ED, Spine, SDCA, CJM, DM and dilution Statistics available

France

No breeding restrictions by national kennel club or breed club

National health statistics for all breeds here: https://www.centrale-canine.fr/sites/default/files/2021-07/Rapport%20sant%C3%A9%202021_0.pdf

Belgians mentioned in recommended DNA tests for them and amounts of tested dogs:

Race	Maladies				Période 2019-2020				Objectif	
	Nom complet	Code	Gène	Mutation	Nbre de résultats sur la période	Résultats / Chiens confirmés	Porteurs sains	Atteints	Nbre de tests annuel	Objectif atteint en 2020 ?
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.

Also, in France the issue of long-haired variations' gastric cancer is in discussion:

<https://www.centrale-canine.fr/club-francais-du-chien-de-berger-belge/articles/etude-predisposition-genetique-au-carcinome-chez-le-berger-belge-groenendael-tervueren>

- Gastric Carcinoma (later GC) most frequent stomach cancer type
- Predisposition in certain breeds, in groenendael and tervueren males seem to be more affected
- Average age (*in this study*) 8-10 years
- Aetiology poorly known and understood, but both genetic and environmental factors
- Classic signs, vomiting, weight loss, anorexia
- Diagnosis endoscopy with biopsies
- Fatal disease
- Netherland study incidence rate (1,18%) much higher than in US study of general canine population
- Groenendael and tervueren seem to have high racial predisposition in gastric cancer, so important role in genetic factors