

AMERICAN KENNEL CLUB

NAME

CVP BRENDA

NUMBER

TS60143902

BREED

CAVALIER KING CHARLES SPANIEL

SEX

FEMALE

COLOR

BLACK & WHITE, TAN MARKINGS

DATE OF BIRTH

JUNE 25, 2023

SIRE

SYMPHONY'S LITTLE VAMPIRE

TS50608502 03-23 (OFA26G OFEL26 EYE26)

DAM

MARVELLOUS MACIE

TS33568502 09-20 (OFA31F)

BREEDER

WILLARD R HELMUTH

OWNER

WILLARD R HELMUTH

579 N CR 100 E

ARTHUR IL 61911-6265



AMERICAN
KENNEL CLUB®

CERTIFICATE ISSUED
OCTOBER 4, 2023

This certificate invalidates all previous certificates issued.

If a date appears after the name and number of the sire and dam, it indicates the issue of the Stud Book Register in which the sire or dam is published.

For Transfer Instructions, see back of Certificate.

This Certificate issued with the right to correct or revoke by the American Kennel Club.

REGISTRATION CERTIFICATE

ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

CVP BRENDA
registered name

CAVALIER KING CHARLES SPANIEL
breed

film/test/lab #

900215006390728
tattoo/microchip/DNA profile

2550520
application number

07/08/2025
date of report

RESULTS:

The elbows are normal. No radiographic evidence of elbow dysplasia is present.

TS60143902
registration no.

F
sex

06/25/2023
date of birth

24
age at evaluation in months



A Not-For-Profit Organization

KCS-EL1686F24-P-VPI
O.F.A. NUMBER

This number issued with the right to correct or
revoke by the Orthopedic Foundation for Animals.

owner
WILLARD R. HELMUTH
CAROL HELMUTH
579 N CR 100 E
ARTHUR IL 61911

OFA eCert



Verify QR scan

NORMAL

G.G. KELLER, DVM, MS, DACVR
CHIEF OF VETERINARY SERVICES

www.ofa.org

This electronic OFA certificate was generated on: 07/08/2025

This certification can be verified on the OFA website by entering the dog's registration number into the orange search box located at the top of the page or by scanning the QR code above.

If there are any errors on this certificate, please email CORRECTIONS@OFA.ORG to request a correction.

Orthopedic Foundation for Animals, Inc.
2300 E. Nifong Blvd.
Columbia, MO 65201-3806

OFA website: www.ofa.org
E-mail address: ofa@ofa.org
Phone number: 573-442-0418
Fax number: 573-875-5073

ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

CVP BRENDA
registered name

CAVALIER KING CHARLES SPANIEL
breed

film/test/lab #

900215006390728
tattoo/microchip/DNA profile

2550520
application number

07/08/2025
date of report

RESULTS:

No radiographic evidence of hip dysplasia is present. The consensus evaluation is: GOOD

owner
WILLARD R. HELMUTH
CAROL HELMUTH
579 N CR 100 E
ARTHUR IL 61911

OFA eCert



Verify QR scan

TS60143902
registration no.

F
sex

06/25/2023
date of birth

24
age at evaluation in months



A Not-For-Profit Organization

KCS-10124G24F-P-VPI
O.F.A. NUMBER

*This number issued with the right to correct or
revoke by the Orthopedic Foundation for Animals.*

G.G. Keller DVM

G.G. KELLER, DVM, MS, DACVR
CHIEF OF VETERINARY SERVICES

www.ofa.org

This electronic OFA certificate was generated on: 07/08/2025

This certification can be verified on the OFA website by entering the dog's registration number into the orange search box located at the top of the page or by scanning the QR code above.

If there are any errors on this certificate, please email CORRECTIONS@OFA.ORG to request a correction.

Orthopedic Foundation for Animals, Inc.
2300 E. Nifong Blvd.
Columbia, MO 65201-3806

OFA website: www.ofa.org
E-mail address: ofa@ofa.org
Phone number: 573-442-0418
Fax number: 573-875-5073

ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

CVP BRENDA
registered name

CAVALIER KING CHARLES SPANIEL
breed

film/test/lab #

900215006390728
tattoo/microchip/DNA profile

2550520
application number

07/08/2025
date of report

RESULTS:

Based upon the radiograph submitted, no phenotypic evidence of Legg-Calve-Perthes disease was recognized.

TS60143902
registration no.

F
sex

06/25/2023
date of birth

24
age at evaluation in months



A Not-For-Profit Organization

KCS-LP742/24F-VPI
O.F.A. NUMBER

*This number issued with the right to correct or
revoke by the Orthopedic Foundation for Animals.*

NORMAL

owner
WILLARD R. HELMUTH
CAROL HELMUTH
579 N CR 100 E
ARTHUR IL 61911

OFA eCert



Verify QR scan

G.G. Keller, DVM

G.G. KELLER, DVM, MS, DACVR
CHIEF OF VETERINARY SERVICES

www.ofa.org

This electronic OFA certificate was generated on: 07/08/2025

This certification can be verified on the OFA website by entering the dog's registration number into the orange search box located at the top of the page or by scanning the QR code above.

If there are any errors on this certificate, please email CORRECTIONS@OFA.ORG to request a correction.

Orthopedic Foundation for Animals, Inc.
2300 E. Nifong Blvd.
Columbia, MO 65201-3806

OFA website: www.ofa.org
E-mail address: ofa@ofa.org
Phone number: 573-442-0418
Fax number: 573-875-5073

ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

CVP BRENDA
registered name

CAVALIER KING CHARLES SPANIEL
breed

film/test/lab #

900215006390728
tattoo/microchip/DNA profile

2550520
application number

07/03/2025
date of report

RESULTS:

Normal cardiovascular examination via auscultation - No evidence of congenital or acquired heart disease was noted. Since acquired heart disease may develop later, these evaluation results remain valid for one year, and annual examinations are recommended to continue to monitor cardiac health.

TS60143902
registration no.

F
sex

06/25/2023
date of birth

24
age at evaluation in months



A Not-For-Profit Organization

KCS-BCA6943/24F/P-VPI
O.F.A. NUMBER

This number issued with the right to correct or
revoke by the Orthopedic Foundation for Animals.

owner

WILLARD R. HELMUTH
CAROL HELMUTH
579 N CR 100 E
ARTHUR IL 61911

OFA eCert



Verify QR scan

NORMAL/CLEAR - PRACTITIONER

G.G. Keller DVM

G.G. KELLER, DVM, MS, DACVR
CHIEF OF VETERINARY SERVICES

www.ofa.org

This electronic OFA certificate was generated on: 07/03/2025

This certification can be verified on the OFA website by entering the dog's registration number into the orange search box located at the top of the page or by scanning the QR code above.

If there are any errors on this certificate, please email CORRECTIONS@OFA.ORG to request a correction.

Orthopedic Foundation for Animals, Inc.
2300 E. Nifong Blvd.
Columbia, MO 65201-3806

OFA website: www.ofa.org
E-mail address: ofa@ofa.org
Phone number: 573-442-0418
Fax number: 573-875-5073

ORTHOPEDIC FOUNDATION FOR ANIMALS, INC.

CVP BRENDA
registered name

CAVALIER KING CHARLES SPANIEL
breed

film/test/lab #

900215006390728
tattoo/microchip/DNA profile

2550520
application number

07/03/2025
date of report

RESULTS:

The results of the examination submitted to OFA indicate that no evidence of patellar luxation was recognized.

TS60143902
registration no.

F
sex

06/25/2023
date of birth

24
age at evaluation in months



A Not-For-Profit Organization

KCS-PA14186/24F/P-VPI
O.F.A. NUMBER

This number issued with the right to correct or
revoke by the Orthopedic Foundation for Animals.

NORMAL - PRACTITIONER

owner
WILLARD R. HELMUTH
CAROL HELMUTH
579 N CR 100 E
ARTHUR IL 61911

OFA eCert



Verify QR scan

G.G. Keller, DVM

G.G. KELLER, DVM, MS, DACVR
CHIEF OF VETERINARY SERVICES

www.ofa.org

This electronic OFA certificate was generated on: 07/03/2025

This certification can be verified on the OFA website by entering the dog's registration number into the orange search box located at the top of the page or by scanning the QR code above.







If there are any errors on this certificate, please email CORRECTIONS@OFA.ORG to request a correction.

Orthopedic Foundation for Animals, Inc.
2300 E. Nifong Blvd.
Columbia, MO 65201-3806

OFA website: www.ofa.org
E-mail address: ofa@ofa.org
Phone number: 573-442-0418
Fax number: 573-875-5073

BREED-RELEVANT RESULTS

Research studies indicate that these results are more relevant to dogs like Brenda, and may influence her chances of developing certain health conditions.

	Intervertebral Disc Disease (Type I) (FGF4 retrogene - CFA12)	Increased risk
	Degenerative Myelopathy, DM (SOD1A)	Notable
	Dry Eye Curly Coat Syndrome (FAM83H Exon 5)	Clear
	Episodic Falling Syndrome (BCAN)	Clear
	Medium-Chain Acyl-CoA Dehydrogenase Deficiency, MCADD (ACADM, Cavalier King Charles Spaniel Variant)	Clear
	Muscular Dystrophy (DMD, Cavalier King Charles Spaniel Variant 1)	Clear

HEALTH REPORT

Increased risk result

Intervertebral Disc Disease (Type I)

Brenda inherited both copies of the variant we tested for Chondrodystrophy and Intervertebral Disc Disease, CDDY/IVDD, Type I IVDD. Brenda is at increased risk for Type I IVDD.

How to interpret this result

Brenda has two copies of an FGF4 retrogene on chromosome 12. In some breeds such as Beagles, Cocker Spaniels, and Dachshunds (among others) this variant is found in nearly all dogs. While those breeds are known to have an elevated risk of IVDD, many dogs in those breeds never develop IVDD. For mixed breed dogs and purebreds of other breeds where this variant is not as common, risk for Type I IVDD is greater for individuals with this variant than for similar dogs.

What is Chondrodystrophy and Intervertebral Disc Disease, CDDY/IVDD, Type I IVDD?

Type I Intervertebral Disc Disease (IVDD) is a back/spine issue that refers to a health condition affecting the discs that act as cushions between vertebrae. With Type I IVDD, affected dogs can have a disc event where it ruptures or herniates towards the spinal cord. This pressure on the spinal cord causes neurologic signs which can range from a wobbly gait to impairment of movement. Chondrodystrophy (CDDY) refers to the relative proportion between a dog's legs and body, wherein the legs are shorter and the body longer. There are multiple different variants that can cause a markedly chondrodystrophic appearance as observed in Dachshunds and Corgis. However, this particular variant is the only one known to also increase the risk for IVDD.

When signs & symptoms develop in affected dogs

Signs of CDDY are recognized in puppies as it affects body shape. IVDD is usually first recognized in adult dogs, with breed specific differences in age of onset.

Signs & symptoms

Research indicates that dogs with one or two copies of this variant have a similar risk of developing IVDD. However, there are some breeds (e.g. Beagles and Cocker Spaniels, among others) where this variant has been passed down to nearly all dogs of the breed and most do not show overt clinical signs of the disorder. This suggests that there are other genetic and environmental factors (such as weight, mobility, and family history) that contribute to an individual dog's risk of developing clinical IVDD. Signs of IVDD include neck or back pain, a change in your dog's walking pattern (including dragging of the hind limbs), and paralysis. These signs can be mild to severe, and if your dog starts exhibiting these signs, you should schedule an appointment with your veterinarian for a diagnosis.

How vets diagnose this condition

For CDDY, dogs with one copy of this variant may have mild proportional differences in their leg length. Dogs with two copies of this variant will often have visually longer bodies and shorter legs. For IVDD, a neurological exam will be performed on any dog showing suspicious signs. Based on the result of this exam, radiographs to detect the presence of calcified discs or advanced imaging (MRI/CT) to detect a disc rupture may be recommended.

How this condition is treated

IVDD is treated differently based on the severity of the disease. Mild cases often respond to medical management which includes

Registration:



HEALTH REPORT

Notable result

Degenerative Myelopathy, DM

Brenda inherited one copy of the variant we tested for Degenerative Myelopathy, DM

What does this result mean?

This variant should not impact Brenda's health. This variant is inherited in an autosomal recessive manner, meaning that a dog needs two copies of the variant to show signs of this condition. Brenda is unlikely to develop this condition due to this variant because she only has one copy of the variant.

Impact on Breeding

Your dog carries this variant and will pass it on to ~50% of her offspring. You can email breeders@embarkvet.com to discuss with a genetic counselor how the genotype results should be applied to a breeding program.

What is Degenerative Myelopathy, DM?

The dog equivalent of Amyotrophic Lateral Sclerosis, or Lou Gehrig's disease, DM is a progressive degenerative disorder of the spinal cord. Because the nerves that control the hind limbs are the first to degenerate, the most common clinical signs are back muscle wasting and gait abnormalities.

When signs & symptoms develop in affected dogs

Affected dogs do not usually show signs of DM until they are at least 8 years old.

How vets diagnose this condition

Definitive diagnosis requires microscopic analysis of the spinal cord after death. However, veterinarians use clues such as genetic testing, breed, age, and other diagnostics to determine if DM is the most likely cause of your dog's clinical signs.

How this condition is treated

As dogs are seniors at the time of onset, the treatment for DM is aimed towards increasing their comfort through a combination of lifestyle changes, medication, and physical therapy.

Actions to take if your dog is affected

- Giving your dog the best quality of life for as long as possible is all you can do after receiving this diagnosis.