

The Kennel Club Registrations – CM/SM Scheme breed breakdown (shown below)										
TOY	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Griffon Bruxellois	185	174	170	224	173	201	160	148	155	173

Source:

[http://www.bva.co.uk/uploadedFiles/Content/Canine\\_Health\\_Schemes/Chiari\\_Malformation\\_Syringomyelia\\_Scheme.pdf](http://www.bva.co.uk/uploadedFiles/Content/Canine_Health_Schemes/Chiari_Malformation_Syringomyelia_Scheme.pdf)

## BVA – Health Scheme

### What is CM/SM?

Chiari-like malformation (CM) is characterized by a mismatch in size between the brain (which is too large) and the skull (which is too small). This may block the opening from the skull to the spine and alter the flow of cerebrospinal fluid (CSF) around the spinal cord. As a result, fluid-filled cavities called syrinxes can develop within the spinal cord, with the condition being called syringomyelia (“*sear-ing-go-my-eelya*”) (SM). The condition has been shown to be inherited, although the mechanism of inheritance is not yet understood.

### What is the aim of the Scheme?

The aim of the Scheme is to reduce or eliminate the incidence of inherited CM and SM in dogs. It requires a magnetic resonance imaging (MRI) examination of the brain and upper neck. Although it is expected that the majority of dogs using the CM/SM Scheme will be pedigree toy breeds, the Scheme is open to all dogs, including crossbreeds.

For more information visit [www.bva.co.uk/chs](http://www.bva.co.uk/chs) and click on Canine Health Schemes.

Examples of the MRI features of Canine CM/SM are shown opposite. Figure 1 shows the brain and upper neck spinal cord from a normal dog. Figure 5 shows CM/SM, with the brain pushed out of the back of the skull (arrow) and a fluid-filled cavity (white with asterisk) within the spinal cord (grey). Figures 2, 3 and 4 show intermediate grades of CM/SM.

### What are the clinical signs?

Although some dogs with a mild CM/SM can seem completely normal, other dogs experience intense pain and may be unable or unwilling to exercise and may have increased sensitivity to touch especially around the head, neck, shoulders and sternum (breast bone). Severe cases may display a characteristic shoulder, neck and/or head scratching where they ‘air-scratch’ without making contact with the body. Some dogs show neurological signs such as incoordination and weakness.

### What breeds are affected?

CM/SM has been shown to be inherited in the Cavalier King Charles Spaniel and the Griffon Bruxellois and is suspected to be inherited in the King Charles Spaniel. Other breeds reported with the condition include, among others, Maltese, Yorkshire Terriers, Chihuahuas, Papillons, Pomeranians, Affenpinschers, Havanese, Boston Terriers and Staffordshire Bull Terriers.

### Does the Scheme help breeders and the pet owner?

Yes, it allows buyers to verify that the parents of their new puppy have been MRI scanned and at what age. Potential buyers can therefore gain reassurance that they are buying from breeders who are performing all the recommended tests to control CM/SM and are using the suggested breeding protocols. Breeders using the Scheme will be demonstrating the highest standards of testing for CM/SM and are doing their best to promote good health and welfare in the dogs they breed. The Scheme is designed to work with the Kennel Club’s Mate Select programme a revolutionary new online tool that will enable both occasional and regular breeders to select the most appropriate proposed mating to maximise the chances of producing healthy puppies whilst having the optimum impact on the breed’s genetic diversity. Details are available on [www.thekennelclub.org.uk](http://www.thekennelclub.org.uk)

### How will I arrange an MRI scan for my dog?

There are a number of veterinary centres which offer MRI scanning facilities and which follow the protocol recommended by the Scheme to ensure an adequate quality of the images. The MR images required are DICOM images (Digital Imaging & Communication in Medicine, as used in hospitals). DICOM images are used for security reasons as it is not possible to divorce client details from the images.

All dogs must be permanently identified (by microchip or tattoo) before examination and certification. The identification will be verified by the performing vet prior to the examination and the identification number will be recorded both on the images and on the certificate issued.

You must have the relevant KC owner registration document/related transfer or change of name certificate with you when you present your dog for a MRI scan, if your dog is registered with the Kennel Club. It is possible to scan dogs that are not KC registered; an alternative appropriate form of identification must be provided (e.g. pet name, identification from your veterinary practice or breed club).

Owners must sign a declaration certifying that the details are correct, and that the results may be published by the Kennel Club and also used for research purposes.

All of the above information must be correct at the time of scanning as it is not possible to change the details on DICOM images retrospectively.

SOURCE: [http://www.bva.co.uk/uploadedFiles/Content/Canine\\_Health\\_Schemes/breed-breakdown-submitted-to-cmsm-scheme-jul-2015.pdf](http://www.bva.co.uk/uploadedFiles/Content/Canine_Health_Schemes/breed-breakdown-submitted-to-cmsm-scheme-jul-2015.pdf)

#### CM/SM Scheme breed breakdown

<b>To 31st July 2015</b>	
<b>Affenpinscher</b>	<b>31</b>
<b>Australian Terrier</b>	<b>2</b>
<b>Boston Terrier</b>	<b>2</b>
<b>Cavalier KCS</b>	<b>298</b>
<b>Chihuahua</b>	<b>44</b>
<b>French Bulldog</b>	<b>1</b>
<b>Graussie</b>	<b>6</b>
<b>Griffon Belge</b>	<b>5</b>
<b>Griffon Bruxellois</b>	<b>45</b>
<b>Papillon</b>	<b>3</b>
<b>Pekignese</b>	<b>3</b>
<b>Petite Brabancon</b>	<b>3</b>
<b>Pomeranian</b>	<b>7</b>
<b>x-bred</b>	<b>4</b>
<b>Total</b>	<b>454</b>