

## **PART B - a guide to health testing of Cavalier King Charles Spaniel**

The Cavalier Health Liaison Committee will be constantly updating this guide as and when new information is received and discussed by them. Health testing recommendations appear from time to time often as a result of research by experts in their field and members should keep themselves up to date as to the latest information which is available on the various web sites such as The Cavalier King Charles Spaniel Club, The Kennel Club, AHT and Cavalierhealth.co.uk. These recommendations are voluntary and not compulsory but can be used to help in the breeding of sound cavaliers. The following information gives an outline of the tests available but breeders should ensure that they obtain the up to date details of any particular scheme they are considering.

### **International Breeding Programme**

This is a science based project resulting from discussions with geneticists, veterinarians, breeders and kennel clubs. Supported by the Dutch and Belgium Kennel Club's the scheme is based on EBV's and is administered through the University of Leuven (Belgium).

Pedigrees and health data is submitted by breeders direct to the scheme administrator and can come from any current or previous health test going back many years, so previous MRI scan's are acceptable. The computer software can convert previous scheme grading's to the current terminology and allow for differences across countries. NO individual results are published but all information is used and constantly updated to produce an EBV for each Cavalier.

Health information is currently being collected for Hearts, SM, Eyes, Dry Eye Curly Coat syndrome and Episodic Falling with the first EBV's based on Hearts and SM due later in 2012. There is however no limit to the number of factors that could be built into future EBV's.

NO EBV will be published but when a breeder wishes to bred from their bitch by using the scheme an alphabetical list of potential stud dogs will be produced based on the combined EBV's of the bitch and possible sire's health results. From this list a breeder makes their personal choice and is supplied with a health certificate to show to potential buyers that the puppy has been responsibly bred based on scientific research.

All the costs of the project are borne by the volunteers, but for the full-time researcher at the University, they need a budget for the next 3 years. You can help the project by making a financial contribution. More information can be found in the newsletter on the internet.

Full details of the International breeding programme are available at <http://www.cavalierpopulation.com/>

The Animal Health Trust is also working on an EBV scheme for CM/SM using the results from the KC/BVA CM/SM scheme. No date has been announced as to when this might become available.

### **Syringomyelia –**

The diagnosis of syringomyelia is confirmed by MRI but neurologists have yet to define what is meant by the term 'clear' given that most cavaliers have a degree of skull malformation. The late onset of clinical signs and the number of asymptomatic dogs adds to the complexity of the condition. Not enough is known about long term progression and with research being an evolving process there can be differing opinions.

The Cavalier Clubs have negotiated reduced rate mini MRI Scanning Days with Geoff Skerritt at ChesterGates Referral Hospital, Cheshire. Cost including reading the scans is currently £200 (includes

VAT) and scans will be read on the day and graded in the latest CM/SM system. Results will not be published but breeders will be encouraged to submit these health tests to the EBV's being calculated by the International Breeding Programme mentioned above.

## **KC/BVA Schemes** (relevant to Cavaliers)

**Eyes** - The Kennel Club (KC) and the British Veterinary Association (BVA) currently operate health schemes for inherited eye diseases. The KC/BVA screening programmes help conscientious breeders to identify those dogs that are clinically free of such diseases so that the best possible choices for breeding programmes may be made.

The Cavalier is listed in Schedule A for Hereditary Cataract (HC) and Multifocal Retinal Dysplasia (MRD), the known inherited eye diseases in the breed. Following a simple examination by an appointed eye panellist a certificate is issued with results of "affected" or "unaffected" and these results are recorded and published by the Kennel Club and are included in their Health Test Results Finder.

Breed Clubs opinion is that for dogs used for breeding a current clear eye certificate is strongly recommended.

**Syringomyelia** – A BVA/KC Chiari malformation/Syringomyelia (CM/SM) scheme was launch in January 2012. Full details are available on the BVA website (search under Canine Health schemes) and an explanatory leaflet issued jointly by the KC and BVA  
[http://www.bva.co.uk/public/documents/BVA\\_CMSM\\_faq.pdf](http://www.bva.co.uk/public/documents/BVA_CMSM_faq.pdf)

Cost is currently £100 to read your scan and register your result plus the cost of carrying out a mini scan which is likely to be £200 plus VAT. The BVA and KC have their own breeding recommendations but as SM is considered a progressive disease, they recommend breeders should scan their dogs more than once. Minimum age for submission is 12 months.

## **AHT Schemes**

**ECVO and The AHT Eye scheme** – the Animal Health Trust offers a similar screening programme for inherited eye diseases the results of which are recorded and published by the Kennel Club and are included in their Health Test Results Finder

**Dry Eye Curly Coat syndrome and Episodic Falling** – The Animal Health Trust has launched two new DNA tests for these conditions in Cavaliers. Testing is done by posting a cheek swab sampling kit to owners who submit it to the AHT laboratory. A certificate is sent to the owners. The scheme was launched in August 2011 and breeders should contact the AHT for the latest details of participation.  
[http://www.aht.org.uk/cms-display/genetics\\_curleycoat.html](http://www.aht.org.uk/cms-display/genetics_curleycoat.html)  
Cost is £48 but Breed clubs have negotiated a 20% discount so contact your local club for a discount code.

Results from the recent AHT survey are due in June 2012 together with breeding guidelines.

## **Breed Specific schemes**

**Hearts** – Heart research has been on going in the breed since 1990 and the Cavalier Club web site has archives of the various veterinary papers and research projects. It is likely that a new KC/BVA scheme will be established at some point in the future based on all breeds.

The Cavalier King Charles Spaniel Club produces a Heart Research form which is recognised by all UK Cavalier Clubs and used by club members to obtain veterinary opinion as to the presence of Mitral Value Disease (MVD) which is graded on a scale of 0 – 6

Based on those results the guidance given to breeders to reduce the incidence of MVD in Cavaliers is as follows:

### **THE BROOD BITCH**

Should be a minimum of 2½ (two and a half) years old with a clear heart, and parents with clear heart certificates, issued at 5 (five) years or older.

### **THE STUD DOG.**

Should preferably be at least 2½ (two and a half) years old with a clear heart, and with parents with clear heart certificates issued at 5 (five) years of age or older.

THESE ARE MINIMUM RECOMMENDATIONS.

To use an older stud dog with a clear certificate issued as late in life as possible is highly desirable

**IT IS STRONGLY ADVISED THAT BREEDING STOCK UNDER (FIVE) YEARS OF AGE IS LIMITED TO THOSE WITH CLEAR HEART CERTIFICATES. HOWEVER, AN OLDER DOG WITH A SLIGHT HEART MURMUR SHOULD NOT BE IGNORED.**

Please remember, dogs do not have to have a clear heart to be used at stud. It is the dogs with early onset murmurs (under five years of age) that we are so strongly advised to avoid using for breeding.

Breeders should aim at raising the age of onset of MVD by selecting breeding stock with a good heart record.

Club guide-lines are based on current recommendations of Geneticists and Cardiologists, and may be updated and reissued as further research information becomes available.

The Cavalier Club annually produces a list of older dogs and bitches with clear heart certificates, tested at five years of age and older. The dogs listed are those with Heart Certificates submitted to the Club research scheme and the names are published only with the permission of their owners. Since 2007 only those dogs certified by a CARDIOLOGIST have been published on the OVER FIVE CLEAR HEART LIST.

It is strongly recommended that a Cardiologist examines the dogs whenever possible.