

# Three-dimensional echocardiographic determinants of the age of onset of myxomatous mitral valve disease in Cavalier King Charles Spaniels

## Purpose

To map the hearts of the Cavaliers using specialized software and 3-D echocardiogram and predict future onset and severity of mitral valve disease.

## Background

Cavalier King Charles Spaniels get valvular heart disease at an earlier age than other breeds, and their heart disease often progresses more quickly. One reason could be that, compared to healthy dogs from other breeds, some Cavaliers have significant differences in the shape of the mitral valve. By using 3D tools to map the hearts of Cavaliers while they're still healthy, we hope to find ways to predict early onset and severity of cardiac disease. This will allow veterinarians to provide better care for those dogs at higher risk, i.e. extend the quantity and quality of life of dogs with this condition.

## Eligibility

- Purebred Cavalier King Charles Spaniels who are between 18 months and 10 years of age
- Otherwise healthy
- No history of heart disease
- Dogs with no murmur or mild murmurs (2/6 or less) are eligible

## Exclusion Criteria

- Heart murmur louder than 2/6

## Study Design

Dogs will undergo standard echocardiographic and physical examination to establish baseline measurements. Dogs will return for recheck examinations every 4 months until mitral valve disease develops or until the end of the study period (until 2020). **All appointments must take place at the Virginia-Maryland College of Veterinary Medicine in Blacksburg, Virginia.**

## Compensation

Enrolled dogs will receive, at no cost, a physical examination/office visit and an echocardiographic examination. Four-month follow-up visits are also included for the duration of the dog's enrollment in the study.

## Contact

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If your query is urgent, please call the Small Animal Hospital on (540) 231-4621 and ask for the cardiologist on duty.