

MYXOMATOUS MITRAL VALVE DISEASE (MMVD) IN SMALL AND TOY BREEDS

~75%

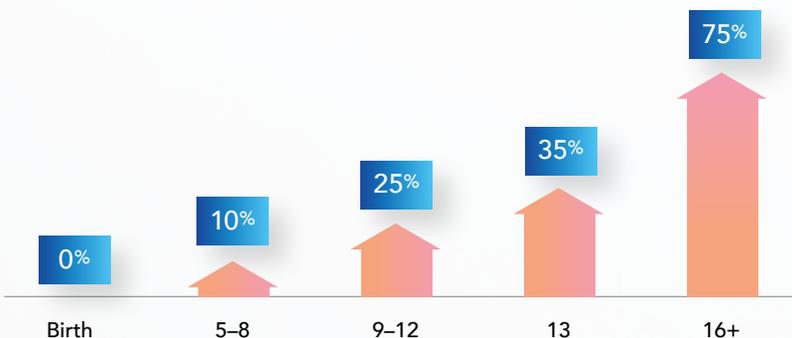
- MMVD is the most common form of acquired canine heart disease¹
- MMVD is a degenerative condition – it involves thickening of the mitral valve, leading to impaired function and, ultimately, congestive heart failure¹

- Prevalence is higher in genetically predisposed small and toy breeds^{2,3}
- Cavalier King Charles Spaniels (CKCS), Dachshunds, Miniature and Toy Poodles, Chihuahuas



<20 kg

The likelihood of MMVD increases dramatically with age^{4,5}



THE EXTENDED LIFESPAN OF SMALL DOGS CONTRIBUTES TO THEIR INCREASED RISK OF MMVD³

Enabling diagnosis in small patients

Small and toy breeds, including those with a known predisposition to MMVD, should undergo regular evaluations, including yearly auscultation, as part of routine health care.⁶

Reduce stress in small patients during examination



Toy breeds can show signs of fear and stress when placed on an examination table⁷



Stress may be alleviated by placing a towel on the table for support and traction⁸ – this can make a metal or plastic table feel less cold and therefore more comfortable



Tailor diagnosis methods for small patients

 <p>Physical examination</p>	<ul style="list-style-type: none"> • There are no breed differences regarding heart rate and respiratory rate, even for smaller breeds⁹ • Pet owner monitoring of resting respiratory rate (RRR) at home may help with early detection and management of disease progression 	<p>Search 'My Pet's Heart 2 Heart' in your local Google Play or Apple App. stores</p>
 <p>Auscultation</p>	<ul style="list-style-type: none"> • Heart murmurs may be easier to hear in small and toy breeds due to relatively little tissue between the heart and stethoscope • A paediatric chest piece can be used for heart murmur localisation 	
 <p>Check for small and toy breed comorbidities</p>	<ul style="list-style-type: none"> • Upper respiratory tract disease: small and toy breeds including Chihuahuas, CKCS, Pomeranians and Yorkshire Terriers have a higher risk of upper respiratory tract disorders such as tracheal collapse, which can also cause a cough.¹⁰ Radiography is essential to differentiate cardiac from respiratory coughing¹¹ • Periodontal disease predisposes dogs to a variety of cardiac diseases, including MMVD,¹² with smaller breeds at greater risk than larger ones¹³ 	
 <p>Radiography</p>	<ul style="list-style-type: none"> • The heart may seem bigger in toy breeds due to small chests, potentially leading to overestimation of heart size • Use breed-adjusted vertebral heart score (VHS) and/or vertebral left atrial size (VLAS) as objective measurements, but watch for malformed vertebrae, e.g. in Pugs and Boston Terriers 	
 <p>Echocardiography</p>	<ul style="list-style-type: none"> • Echocardiographic identification of mild left atrial or ventricular enlargement can be challenging, and reference to breed-specific values may be required⁶ 	



“SMALL AND TOY BREEDS ARE NOTORIOUSLY DIFFICULT TO PILL.”

Sonya Gordon, DVM, DACVIM Cardiology

- They can be picky eaters and may not accept tablets
- They are prone to dental issues¹³ and may struggle to chew medication
- Consider dosing with liquid medications for dosing accuracy and ease of use

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