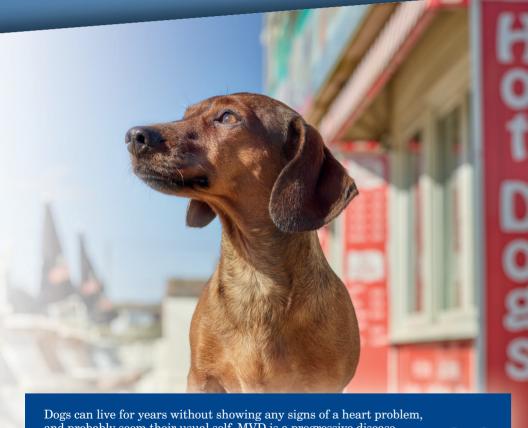
WHAT IS MITRAL VALVE DISEASE (MVD)?

MVD is the most common type of heart disease in dogs. Although all dogs can be affected, it is most common in small to medium, middle-aged to older dogs. In MVD, the mitral valve gradually becomes thick, lumpy, distorted and leaky. This means that when the heart beats, blood can flow in the wrong direction, leaking backwards through the valve. This backflow of blood can be heard as a heart murmur. As MVD worsens, more blood flows the wrong way, the murmur gets louder, and more pressure is put on the heart. To compensate, the heart must grow larger and pump harder.



Dogs can live for years without showing any signs of a heart problem, and probably seem their usual self. MVD is a progressive disease that gets worse over time and can set your dog on a journey to heart failure. However, detecting and treating MVD early helps to delay that journey, giving dogs a longer, fuller life.



Boehringer Ingelheim



For more information on heart disease in dogs please visit:

Brought to you by the makers of vetrodin
An educational service from Boehringer Ingelheim Animal Health UK Ltd ("BI"). Further information available from BI, RG12 8YS, UK. ©2019 All rights reserved. Date of preparation: April 2019.
AHD12127. Use Medicines Responsibly.

References: 1. Atkins C, et al. Journal of Veterinary Internal Medicine 2009;23(6):1142-1150. 2. Boswood

A, et al. Journal of Veterinary Internal Medicine 2016;30(6):1765-1779.



WHY DOES MY DOG HAVE A HEART MURMUR?

Understand more about your dog's heart murmur and the stages of mitral valve disease





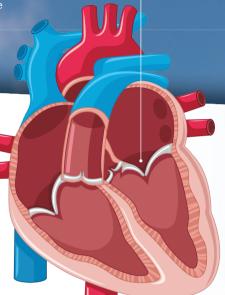
http://bit.ly/beatdogheartdisease www.facebook.com/beatcanineheartdisease.co

HOW DOES MY DOG'S HEART WORK?

Your dog's heart pumps blood around their body, making sure the organs and tissues get the oxygen and energy they need to function.

The heart has four chambers, two on the left and two on the right. Valves separate the upper and lower chambers on each side and open and close in a way that stops blood from flowing in the wrong direction. The mitral valve separates the chambers on the left hand side of the heart.





Just like humans, dogs can suffer from heart problems.



In fact, 1 in 10 dogs have heart disease¹



75% of heart disease cases in dogs are due to mitral valve disease¹

11141033 Vetmedin Owner Leaflet A5 v3a 2019.04.17.indd 1-4

MY VET HAS HEARD A HEART MURMUR — **WHAT DOES THIS MEAN?**

What is a heart murmur?

A heart murmur is an abnormal sound that is heard when listening to the heart with a stethoscope. It is caused when blood flows the wrong way through the damaged mitral valve.

How does this affect my dog?

The presence of a heart murmur is usually the first indication that your dog has MVD. As MVD progresses:

- Your dog's heart will be put under more pressure
- To cope, the heart may grow larger and pump harder
- Eventually, the heart cannot cope with the added strain any longer, and fails to pump enough blood around the body. This is known as heart failure

And the state of t

What happens next?

After hearing a heart murmur, your vet will recommend performing some further tests to establish whether or not your dog has an enlarged heart.

WHY DOES MY VET **NEED TO CHECK FOR AN ENLARGED HEART?**

Not all dogs with MVD will develop heart failure. Dogs with MVD who go into heart failure are normally those who have developed an enlarged heart. Usually, dogs with both MVD and an enlarged heart will develop heart failure within 1-2 years.²

Dogs with MVD and an enlarged heart have been shown to stay outwardly healthy for longer and live longer with treatment. This is why it is important to check your dog's heart so that treatment can be started at the right time to delay the onset of heart failure and keep them happy and healthy for as long as possible.²

How will my vet check if my dog's heart is enlarged?

There are currently two ways to tell if a dog with MVD has an enlarged heart: chest X-ray or ultrasound scan.

Both tests can be used to detect an enlarged heart; your vet will discuss with you which test will be right for your dog. Neither test is painful, but they may require your dog to go into the practice for a few hours or see a heart specialist.





If your dog has a chest X-ray or an ultrasound scan and their heart is of normal size, this is a good sign. This means that your dog is at a lower risk of developing heart failure within 1-2 years. However, MVD is a disease that gets worse over time. Therefore, your vet will recommend that your dog has these tests repeated each year even if they seem well, to monitor how their heart disease is progressing. If your dog's condition changes during the year, your vet will advise repeating these tests sooner.



MORE ABOUT THE SYMPTOM-FREE STAGE OF MVD

In MVD, the first stage of the disease is sometimes called the 'silent' or 'asymptomatic' stage. Although MVD causes a murmur that your vet can detect with a stethoscope, there are usually no outward symptoms that you will be able to see, and your dog will appear completely healthy.2

But during this time – although it isn't visible on the outside – the disease is progressing and the heart's ability to pump blood around the body is gradually declining.²

If your vet diagnoses an enlarged heart, then treatment should be started.

Treatment in the silent stage of MVD

You don't have to wait for your dog to show any outward signs of their heart disease. Treatment is available for dogs diagnosed with an MVD heart murmur and an enlarged heart.

There is an overwhelming benefit to starting treatment in the 'silent' stage of the disease. It means you can keep your dog happy, healthy and, most importantly, symptomfree for as long as possible.

The aim of treatment at this stage is to slow down the progression of MVD, delay heart failure and therefore give you and your dog more quality time together.

AND A SECOND OF THE PARTY OF TH

WHAT HAPPENS IN THE 'HEART FAILURE' **STAGE OF MVD?**

Heart failure, sometimes called congestive heart failure (CHF), is when the heart is no longer able to pump enough blood around the body. This can make your dog feel unwell, reduce their quality of life and ultimately shorten their life. Heart failure is sometimes referred to as the 'clinical' or 'symptomatic' stage of heart disease.

How do I know if my dog has heart failure?

Symptoms of heart failure can initially be quite subtle. But as the disease worsens the heart's function deteriorates and the symptoms become more severe.

Symptoms of heart failure:













breathing rate Tiredness exercising breathing Collapse

It is very important to diagnose heart failure as soon as possible, so if you notice any of these signs

If your dog is found to have heart failure, your vet will discuss additional treatment options with you. The aim of treatment at this stage is to improve and prolong a dog's quality of life.

you should take your dog to the vet urgently.

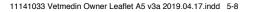
A STATE OF THE PROPERTY OF THE PARTY OF THE

Starting treatment in the 'silent' stage of MVD will help to extend a dog's symptom-free time, keeping them happy and healthy for longer

A CHANGE OF THE STATE OF THE ST







Detection of a heart murmur might be

the first indication your dog has MVD