

## Chronic Degenerative Valve Disease: Stage B2

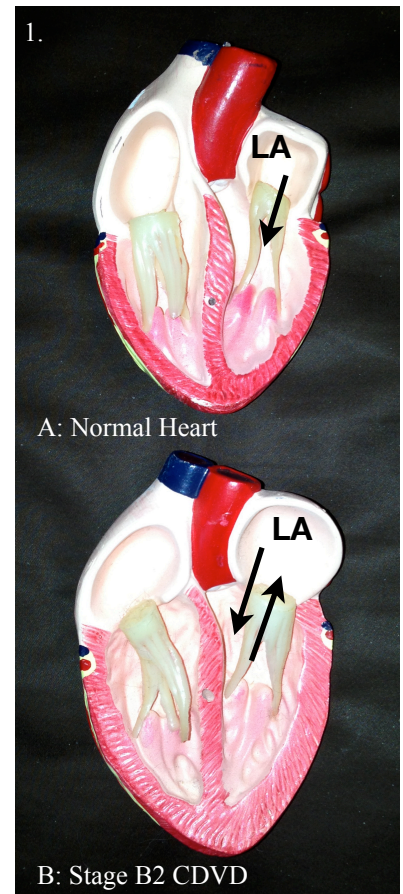
**Your dog has been diagnosed with Stage B2 Chronic Degenerative Valve Disease (CDVD).** The valves in the heart normally act as one way gates to keep all the blood moving in a forward direction. The arrow in the upper photo to the right, “A: Normal Heart”, represents the direction of normal blood flow from the left atrium into the left ventricular chamber. The valve opens, blood flows in the left ventricle, the valve closes, the left ventricle contracts and all the blood continues to move through the heart in a forward direction. CDVD is a condition in which the mitral valve on the left side of the heart undergoes degenerative changes and no longer creates a tight seal when the ventricle contracts. These changes allow blood to “regurgitate”, or leak back into the left atrium. The changes in blood flow are represented by the 2 arrows in the lower photo to the right, labeled “B: Stage B2 CDVD”.

**Stage B2 refers to a patient that has developed a leak across its mitral valve and that the resultant changes in blood flow patterns have lead to enlargement, or “remodeling” of the left side of the heart.** Note the size of the left atrium (LA) in the lower photo B, compared to the LA in the upper photo A, to the right. Enlargement of the heart can often be documented on chest x-rays, but an echocardiogram is necessary to further stage the severity of the condition, assess risk for development of heart failure and to determine a personalized heart health plan for your pet. Depending on a number of echocardiogram findings including left atrial size, pressure within the left atrial chamber and if concurrent pulmonary hypertension is present, medications may be recommended at this stage. Although, starting therapy at this stage of disease is somewhat controversial.

**Progression to Stage C CDVD: Heart Failure:** The left atrial chamber becomes enlarged due to the increased blood volume it is receiving. Simply put, the bigger the leak, the bigger the problem. As the chamber enlarges, just like blowing up a balloon, more and more pressure will develop in the chamber. If enough pressure builds up, the pressure pushes back into the blood vessels in the lungs and causes fluid to leak into the lungs themselves, a condition termed pulmonary edema. When this happens, the patient is said to be in left sided congestive heart failure and medication is definitely warranted.

**Follow-Up:** It is recommended for your pet to have a physical examination, thoracic radiographs and an echocardiogram performed every 3 to 6 months (depending on severity of the condition).

**Monitoring:** Monitor your pet for an increased respiratory rate at rest. Refer to the handout outlining this technique. If elevated resting respiratory rates are noted, a re-evaluation is indicated at that time. Also monitor for exercise intolerance, coughing, weakness, collapse or significant respiratory distress. Contact your veterinarian with any concerns.



<sup>1</sup> Heart models in photo courtesy of Boehringer-Ingelheim, Vetmedica