

- The heart of a diseased English Bull Terrier with heart disease was evaluated by a board certified pathologist.
- We examined apparently healthy EBT puppies. At the age of 6,9 and 12 weeks and 6,12 and 18 months all puppies underwent physical examination and echocardiography with concomitant electrocardiography was performed. We started with 57 puppies. Thirty of these puppies were seen at all six time points.

## Results

A murmur occurs regularly in the English Bull Terrier (31%) The average blood velocity in the aorta is 2.56 m/s. Only 18% of the dogs that were tested had an aortic blood velocity of less than 2 m/s. An aortic blood velocity of more than 2 m/s occurs in dogs with a narrow aorta. A minimal to mild mitral valve leakage was seen often (74%)  
We are currently developing breed specific echocardiographic reference ranges for the EBT. The use of the NTproBNP bloodtest as a screeningtest is currently being statistically analysed. The results of the cellcultures and the pathological examination still have to be interpreted. The results of the genetic tests are also not available yet.

## Examination of the puppies

Thirty EBT were fully characterized at all six time points. A murmur was auscultated in 1/30 dogs at 6 weeks, 1/30 dogs at 9 weeks, 1/30 dogs at 12 weeks, 2/30 dogs at 6 months, 5/30 dogs at 12 months and 7/30 (23%) dogs at 18 months with a maximum intensity of 2/6. A minor mitral regurgitation was common (66%), but no mitral valve abnormalities were seen in this group. Four puppies showed an occasional arrhythmia. The average aortic blood velocity was 1.69 m/s at 6 weeks, 1.88 m/s at 9 weeks, 1.95 m/s at 12 weeks, 2.16 m/s at 6 months, 2.39 m/s at 12 months and 2.5 m/s at 18 months. At 18 months 7 dogs had a murmur although 28 of the 30 dogs had an aortic blood velocity > 2.0 m/s. One dog had a murmur 1/6 at two time points while the aortic blood velocity was < 2.0 m/s. No cause of this murmur was found.

### In conclusion:

The aortic blood velocity increases from 1.69 m/s to 2.5 m/s during growth between the ages of 6 weeks and 18 months. This suggests that heart-screening for breeding based on aortic blood velocity prior to the age of 18 months is not to be recommended. As in many dogs with aortic blood velocity > 2.0 m/s a murmur was not detected, auscultation with a stethoscope does not seem to be a good screening test for detection of a narrow aorta.

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**Special thanks to Erik Wouters**

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