

## **Prevalence of Asymptomatic Murmurs in Healthy Border Terriers**

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A heart certification clinic was conducted at the national specialty show held in St. Louis on June 6<sup>th</sup>, 2005. This was an auscultation clinic in which the dogs were examined for the presence a heart murmur. A heart murmur is the sound of turbulent blood flow. It can be caused by a faulty valve, or a hole in the heart between two chambers. It is considered normal for a puppy to have a soft murmur up to 12 – 16 weeks of age, but not beyond this. Dogs can be screened for congenital cardiac disease any time after 16 weeks of age. Murmurs are graded on a scale of 1 to 6. A murmur that is a 1 is so soft that even a specialist would have trouble hearing it. While a murmur that is a 6 is so loud that it can be heard with the stethoscope held just off the chest.

A total of 56 Border Terriers were screened at the clinic. There was an approximate 50% distribution of males and females, with most dogs being under 2 years of age. Unfortunately, there were an unexpectedly high number of dogs that had murmurs on physical examination. 30% of dogs had a murmur that was graded as a 2 while the dog stood quietly on a grooming table. This is a soft, focal murmur that requires a cooperative patient in a quiet room to hear. 11% of dogs had a murmur that was suspected on initial physical examination, and then confirmed as a 2 after the dog was exercised to increase heart rate. Only 59% of dogs had no evidence of cardiac disease on physical examination.

The significance of these soft murmurs is uncertain. The most common congenital cardiac defect of Border Terriers is pulmonic stenosis - a narrowing of the valve which separates the right heart from the lungs. However, sometimes very soft murmurs turn out to be “physiologic”. A physiologic murmur can occur in healthy animals under times of stress (like a dog show or a visit to the veterinarian). In times of stress the heart beats more vigorously, and in a very athletic heart the blood can be ejected with such force that it creates a small amount of turbulence.

All individuals whose dogs had a heart murmur were encouraged to make an appointment with a cardiologist for an echocardiogram (cardiac ultrasound) to determine the cause of the heart murmur. Owners were requested to forward the results to the author: Dr. Deborah Fine, University of Missouri, 379 E. Campus Dr., Columbia MO 65211), or they can be e-mailed to [fined@missouri.edu](mailto:fined@missouri.edu). The results will be kept anonymous, but the overall prevalence of abnormalities can then be compiled and forwarded to the Health Committee for further distribution to the Border Terrier Association.