

# The Golden Heart of the Boxer

## Revisited

*Views presented are mine; endorsement by the Bluebonnet Boxer Club has not been sought nor is it implicit. AGS.*

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### Aortic Stenosis in the Boxer Page 1.

Good evening, fellow members of the Bluebonnet Boxer Club. Our topic today is aortic stenosis in the Boxer, but, we'll digress somewhat to improve our perspective.

First, the current emphasis on studies in this field doesn't mean that other diseases of the Boxer are not being addressed. They are!

Second, more and more we are discovering that the genetic diseases of the Boxer go back to its earliest beginnings. Of necessity, when breeders start a line, they inbreed, or line-breed, heavily to achieve both definition of the animal desired and to fix its characteristics, so that they may breed true. Unfortunately, this entails doubling up of not only desirable genes, but, also undesirable ones which may not emerge, and/or be recognized, for some time. It now seems probable that some of the pillars of our Breed were carrying, and transmitted, these adverse cardiac genes. They may have even accounted for their short life spans ... some outstanding Boxers were short lived.

We should also remember that in the early twentieth century, as our Breed was refined, and defined, the mechanics of cardiac diagnosis were primitive. The stethoscope, and finger palpation, were the available tools; electrocardiography was rare; 24 hour Holter monitoring, sonography and colour doppler studies were unheard of. Note was made of some abnormalities but it was not until the fifties that definitive tools became available. With their advent, we began to see what had been happening.

Two major hereditary cardiac diseases emerged .... A cardiomyopathy (disease of the heart muscle) and aortic stenosis (narrowing of a segment of the aorta).

**Aortic stenosis** (formerly termed infundibular aortic stenosis). *Here is a new diagram of the heart which displays the structures involved. It's a human heart so you might mentally rotate it 90 degrees right.*

Four degrees of involvement are described, ranging from minimal to severe. In the first there is no threat to life and in the last there is threat to life and physical impairment. Cardiac murmurs are heard, which are not readily distinguished from benign puppy murmurs. In severe cases, thrills may be palpated along the carotid arteries. I was told, when I first had Boxers, that veterinarians found it unusual to examine a Boxer and have it be free of cardiac murmurs or arrhythmias.

In the severest degrees, the stenosis of the aorta, which is the major artery from the heart to the body, is such that the circulation is impaired, the aortic (semi-lunar) valve fails, blood refluxes into the ventricle and heart failure ensues.

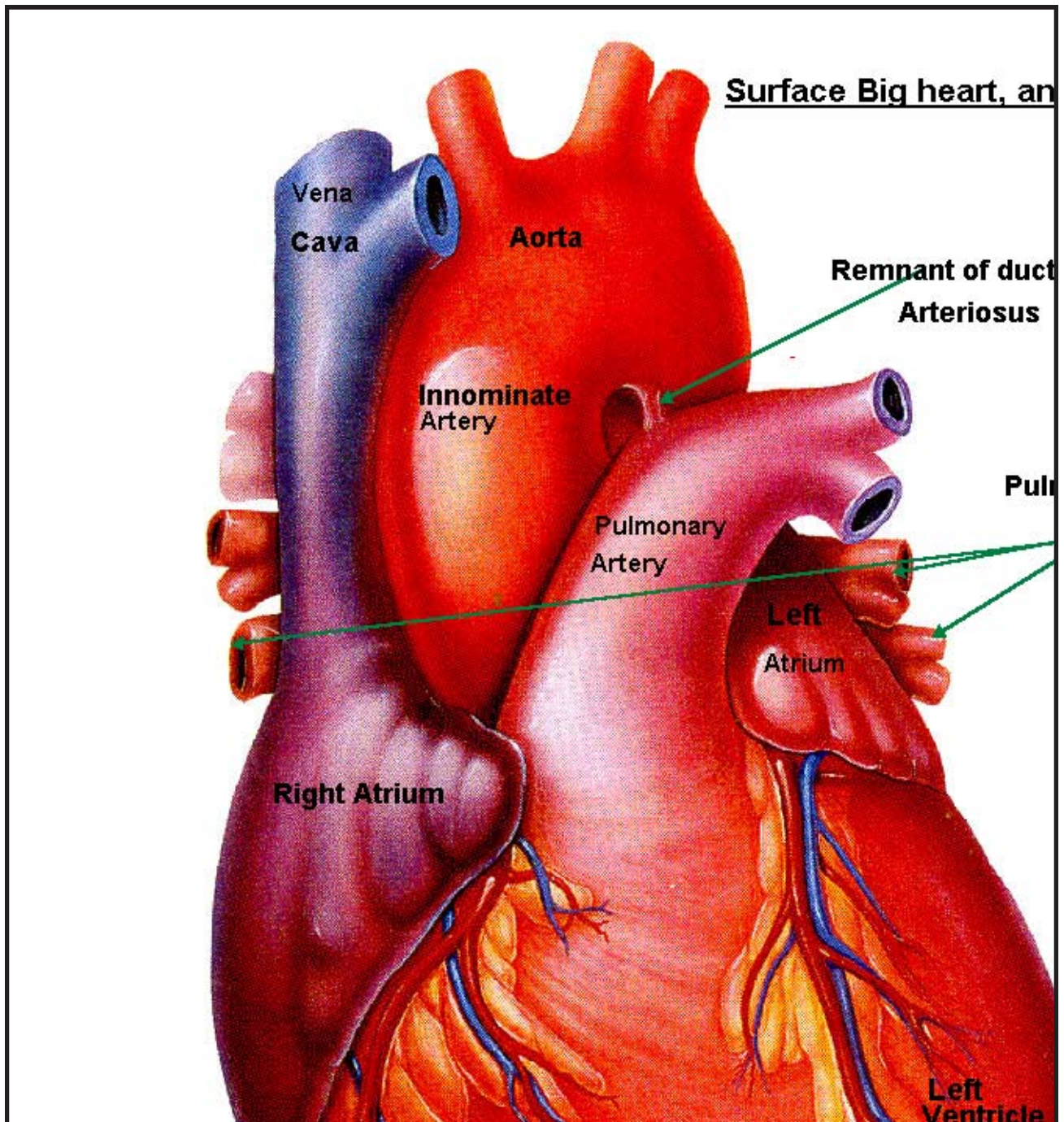
Definitive diagnosis is by colour doppler echocardiography, where dye is injected into the heart allowing it and the great vessels to be visualised.

Studies, in the United Kingdom, postulated that some 45% of Boxers were affected by the problem; since then it has been greatly reduced by wide-spread studies and avoidance of severely affected individuals. Naturally, this involves evaluation of both sires and dams. It seems safe to use mildly affected individuals and puppy evaluation is greatly to be desired. The geneticist Bruce Cattanach MD has found much smaller incidence lately, following careful breeding practice.

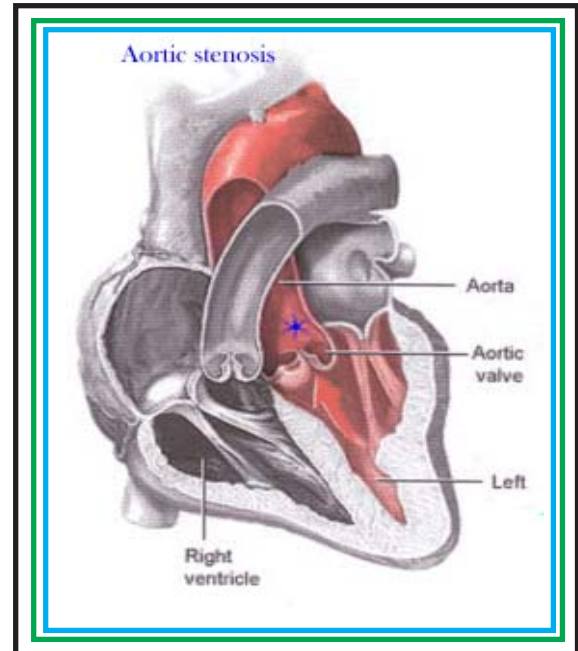
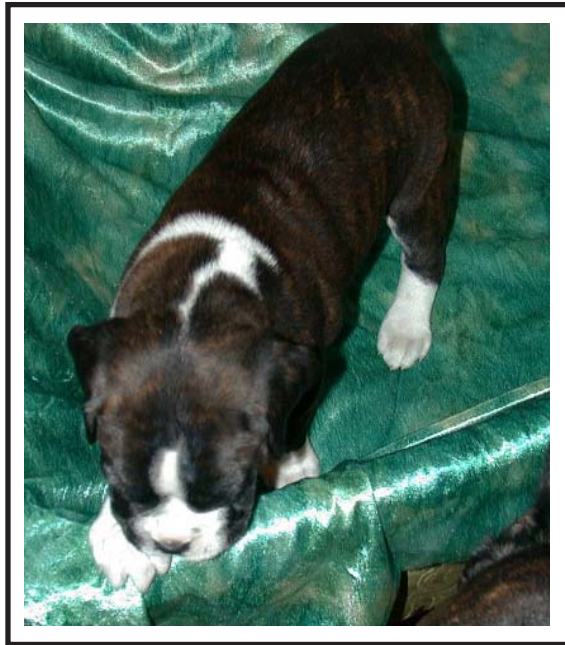
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Especially on the Internet, there are those who advocate such draconian measures as elimination, from all breeding programmes, not only those Boxers which have the smallest degree of aortic stenosis, but those whose ancestors, or siblings, have had any trace of it plus those dogs who have aroused any suspicion. It seems to have escaped their notice that doing so would eliminate majestic icons such as Lustig, Sigurd, Bangaway, Comanche, Flamingo, Flying High, Fashion Hint, Traper, and Cachet from our bloodlines and, rather effectively, destroy the Boxer, as we know it None of us want to keep the disease but must we lose the Boxer to do it?

A further consideration is that our available gene pool would be greatly lessened resulting in concentration of genes. This would inevitably lead to emergence of other traits and, since Murphy's Law still prevails, they would probably be more unpleasant than the ones which we currently recognise.



## Golden heart of the Boxer revisited: Aortic Stenosis Page 3.



Here's my story. Many years ago, I had a puppy with severe aortic stenosis whom I sacrificed. For a long time there were no more such problems ... I finished my young Tory, Ch Pax' Victory of Incognito, and took him to Texas A & M for cardiac evaluation. He had a murmur, like most Boxers according to the veterinary cardiologist, and I decided to go further in his assessment.. He has no ventricular premature systoles, his thyroid profile is within normal limits and he does have mild aortic stenosis with a 1.6 left ventricular maximal ejection fraction.

Was I dismayed? Oh, yes. Then I decided that I'd handle it with forthright honesty; OK, here he is and here is his story. Bitch owners would be well advised to check their bitches' cardiac status before using him, *just so they don't double up on the gene*, but that's it!

Oh, yes, I know where we stand, or don't stand, as the case may be. I have not ever been one with faith in random test investigations, *just because we can*, but there was enough pressure to assay him and I did. Am I sorry? Well, yes, in a way but it's a question of ethics when you offer a Boxer at stud.

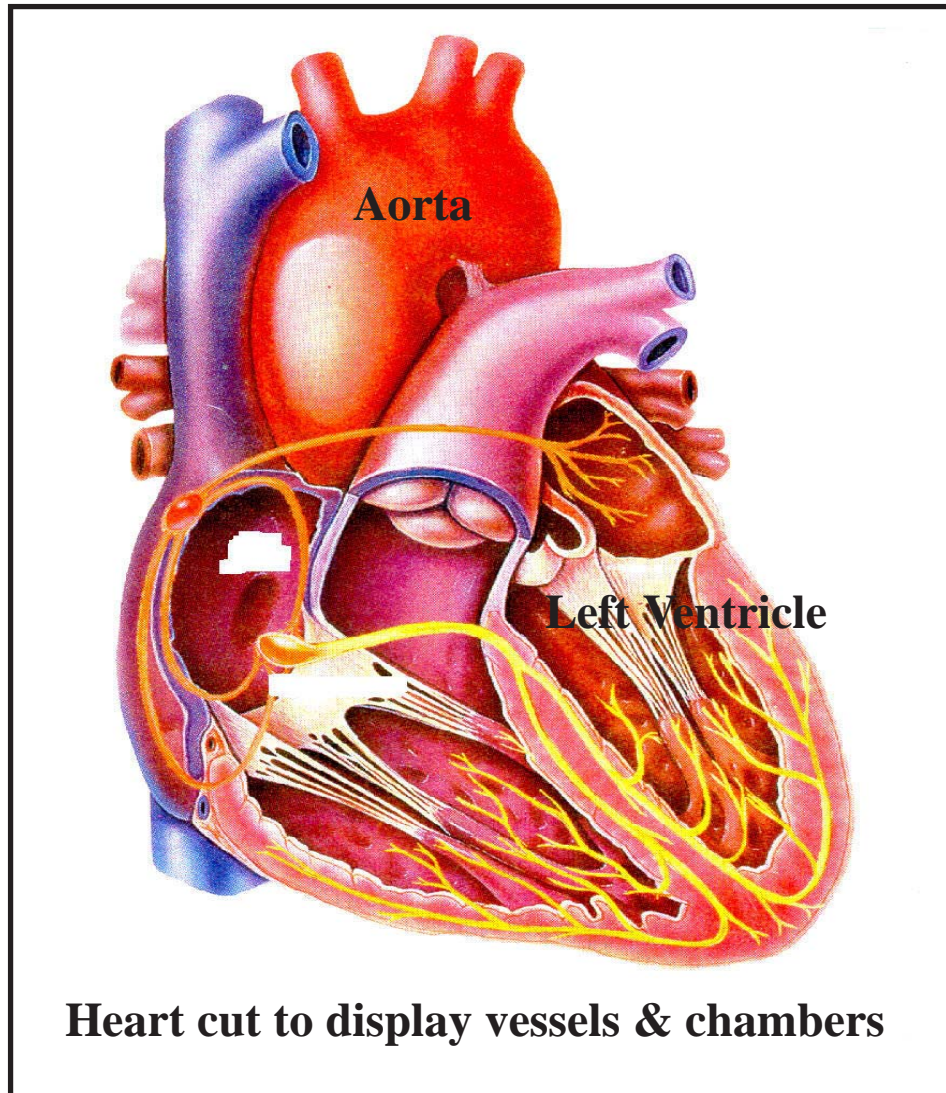
**But, friends, it goes further than that. It's not just the male that carries the genetic burden; it's carried equally by the bitches. We cannot hope to eliminate the disease without losing what our pillars of Boxerdom have handed on to us in good factors but we can attenuate aortic stenosis by avoiding the severely affected Boxers. It has worked in UK and is working in Australia. However, we do need to evaluate the dogs we have and make it known It isn't enough to say in our advertisements, URLs and conversations that our dogs are *cardiac tested*; we need to publish the results!**

My little adventure at College Station ran over \$400.00 which is certainly an expense, but, if we could get a handle on our Boxer situation by having these evaluations then we should probably be doing it

But, and a very large but, I'm not at all ready to lose the lovely heritage of our bye-gone Boxers in the quest for perfection. If we lose the disease, yet lose our Boxer in that pursuit what, indeed, have we gained?

Each of you must follow your conscience. Do not, however, say, "We have no such problems" when you don't know.

July, 2002. Audrey G Schnell



Please, do feel free to comment and ask questions, which I'll answer as well as possible. Here are some added diagrams and articles for you. Enjoy. AGS.

