



MITRAL VALVE DISEASE

MITRAL VALVE DISEASE is the most serious problem facing the Cavalier King Charles Spaniel today. Nearly 100% of all Cavaliers will develop MVD by age 10. MVD is a developmental fault involving the mitral valve of the heart. With each beat of the heart the four different valves open to let blood through at the right time and then close so that blood cannot flow backward. When a dog develops MVD, the collagen/connective tissue that makes up the mitral valve starts to break down and starts causing the mitral valve to not be able to close all the way. Blood leaks backwards and this *leakage* causes a sound that is called a murmur. Over time the mitral valve gets sloppier and more and more blood leaks backwards causing the murmur to get louder. The more blood that leaks backwards the harder the heart has to work to keep the blood moving so the body can get enough oxygen. The valve can get so sloppy that eventually the dog will go into congestive heart failure. At this point in time, medication is necessary to prolong the dog's life.

Sweden did a study in 1993, showing that MVD is a multi-factoral polygenic trait. This means that genetic factors AND environmental factors (i.e. diet, environmental toxins/vaccinations, fitness of body--underweight or overweight) can contribute to how severely MVD will be expressed.

The genetic component is QUITE strong. Puppies WILL, on average, tend to follow in their parent's footsteps as to when they will develop MVD, in fact this incidence is somewhere in the 86-88% range in just the first generation. This means that if both mom and dad are clear of MVD past age 5, about 86-88% of their offspring will still be clear of MVD at approximately age 5 as well. And this ALSO means that if both parents develop mitral valve disease BEFORE age 5, close to 86-88% of their offspring will ALSO develop MVD BEFORE age 5. BUT, approximately 10-15% of their offspring will not follow in their parents footsteps and may develop MVD earlier or later.