

# Heart mitral valve disease (MVD)

## **IN SHORT:**

Heart mitral valve disease (MVD) is the leading cause of death of Cavalier King Charles spaniels throughout the world. MVD is a polygenetic disease which afflicts over half of all Cavaliers by age 5 years and nearly all Cavaliers by age 10 years, should they survive that long.

## **What It Is**

MVD is a degeneration of the heart's mitral valve, one of four sets of valves in a dog's heart. As the mitral valve degenerates, the valve no longer fully closes after each pumping action, allowing some blood to flow backwards through them from the ventricle back into the atrium. As the condition worsens, more and more blood is able to backflow through the valve. In the final stages, the valve's struts sometimes break, causing the valve to collapse completely. MVD results in congestive heart failure in the CKCS.

Mitral valve disease is the most common heart disorder in older dogs of all breeds, affecting more than a third of all dogs over 10 years of age. However, in the Cavalier King Charles spaniel, the prevalence of MVD is about 20 times that of other breeds. Also in Cavaliers, the onset of the disease typically is much earlier in the life of the dog. It has been reported that, once diagnosed, mitral valve disease is much more rapid in Cavaliers than in other breeds, possibly reaching a life-threatening stage within as little as 1 to 3 years, rather than the average 3 to 5 years.

## **Diagnosis**

All Cavaliers should be screened for heart murmurs once a year beginning at age 1 year. Once MVD is detected, its progression can be monitored with stethoscopic examinations (auscultations), x-rays, echocardiograms, and color Doppler echocardiograms. If a heart murmur is detected, it should be confirmed in 3 to 6 months. If it still is detected, the dog is considered probable for MVD.

## **Symptoms & Treatment**

The progression of mitral valve disease can be rapid or slow. In most Cavaliers, the disease shows a gradual progression in the loudness of the murmur and to more serious symptoms, in as little as 2 years after first detecting the murmur. Drugs may help to minimize the symptoms, but eventually the drugs may be unable to control them. The drugs prescribed for Cavaliers with MVD can sometimes have severe adverse side effects, and blood chemistry should be done routinely to monitor their effects upon the kidneys, liver, and other internal organs. Severe symptoms of MVD in some Cavaliers will appear more quickly, although previously having been stable. The ultimate consequence of the disease is heart failure.