



Pulmonic stenosis is one of the more common congenital heart defects in dogs. The condition is often discovered in apparently healthy dogs by a vet during a routine examination (such as before vaccination).

If your vet identifies a heart murmur in your puppy it is essential to have further investigation to establish the cause of the murmur so that appropriate treatment can be given early.

What is pulmonic stenosis?

Pulmonic stenosis is a congenital heart disease, ie it is caused by abnormal development of the puppy before birth. The dog's heart, like that of humans, is a muscular pump. The right side of the heart sends blood to the lungs where it picks up oxygen. The left side of the heart pumps the blood around the body. Pulmonic stenosis occurs when there is an obstruction to blood flowing out of the heart on the right side. In most cases, the obstruction is caused by a narrowed valve (pulmonic valve) that separates the right side of the heart and the pulmonary artery. This narrowing forces the heart to work harder to pump blood to the lungs. The signs shown by the dog depend upon the amount of narrowing (stenosis).

How would I know if my dog has pulmonic stenosis?

Although the condition is present from birth, signs may not be noticed until later in life. Many dogs with pulmonic stenosis have no outward signs of illness - although their growth may be stunted this may not be obvious without direct comparison to a littermate. If your dog is severely affected they may suddenly faint during/after exercise or show signs of heart failure.

It is most commonly seen in small breeds of dog (Bulldog, Scottish Terrier, Wire-haired Fox Terrier, Schnauzer - miniature, West Highland White Terrier, Beagle, Boxer, Chihuahua, Samoyed and German Shepherd Dog).

How will my vet know what is wrong with my dog?

If your vet hears a murmur when listening to your dog's heart they will want to do some other tests. Heart murmurs are caused by the sound of abnormal and high-speed blood flow and are very common findings in dogs with pulmonic stenosis. Very quiet heart murmurs can be present in an otherwise healthy pet so a diagnosis of pulmonic stenosis or other congenital heart disease is not necessarily inevitable.

Ultrasound is the method of choice for finding the cause of a heart murmur. If a heart murmur is heard, an ultrasound examination is recommended. Ultrasound examination of the heart requires considerable knowledge and experience and should be performed by someone with experience in examining young dogs.

X-rays are important in the diagnosis and monitoring of heart disease. In dogs with severe pulmonic stenosis, evidence of heart enlargement on the right side is often evident. X-rays are also used to see if signs of heart failure are present, if there any signs of further heart failure treatment is usually started immediately.

Will my dog get better?

If the pulmonic stenosis is mild then your pet may live a normal life without any treatment. In some cases your vet may advise exercise restriction. In more severe cases (with clinical signs from an early age) the outlook is poor. Your vet will discuss the outlook and long term management of your dog with you.

Can pulmonic stenosis be treated?

In mild cases, treatment may not be necessary. If signs heart failure or intolerance to activity are present, your vet may prescribe medical management to assist heart function and reduce water retention.

In severe cases your vet may advise surgery. A catheter with a balloon tip can be passed into the narrowed artery and when the balloon is inflated it opens the vessel to allow more blood to flow. This is called balloon valvuloplasty, and typically helps relieve the severity of severe disease.

How long will my dog live?

Congenital heart disease - pulmonic stenosis



Many animals with pulmonic stenosis have a normal life span with no signs of heart disease. In affected animals annual monitoring of ECG and echocardiogram is advisable for early detection of signs of heart failure. Lifespan in severely affected animals may be significantly reduced.

Affected dogs and their parents (who could be genetic carriers of the condition) should be not be allowed to breed.

If you want any other information on health issues concerning your dog please contact your local Veterinary Surgeon.