

Septal Defects

Septal defects are congenital heart deformities that are present at birth.

An atrial septal defect (ASD) is a hole in the membrane between the atria, the two upper smaller chamber of the heart. An ASD can be any size and can be located in different parts of the membrane. A ventricular septal defect (VSD) is a hole in the septum, the tissue that separates the ventricles (two lower chambers of the heart). Most VSDs are located just below the aortic valve.

Symptoms

Most ASDs and VSDs are small and do not cause a problem. If the ASD or VSD is large or associated with another congenital heart defect, signs of congestive heart failure (CHF) may be present. CHF signs include increased respiratory rate and/or effort, coughing, fluid accumulation in the abdomen (ascites), around the lungs (pleural effusion) or within the lungs (pulmonary edema).

Diagnosis

Puppies and kittens with a septal defect will most likely have a heart murmur. There are several disease processes and defects that can cause a heart murmur in pets. A cardiac ultrasound (echocardiogram or echo) allows the cardiologist to assess the heart structure, function and look for the cause of the heart murmur. If a septal defect is diagnosed, the echo can be used to locate and measure the size of the defect.

Treatment

If the septal defect is large and has caused CHF, the heart failure can be treated with medical management. Open heart surgery can be performed on dogs large enough to undergo heart bypass. Some defects can be closed with an Amplatzer device that is placed via cardiac catheter.

Prognosis is dependent on the size and location of the defect. Serial echocardiograms and chest x-rays may be required to follow the progression of associated disease.