

Pulmonary hypertension

Pulmonary hypertension is a condition of high blood pressure in the lungs. Blood pressure in the lungs is completely separated from the blood pressure in the rest of the body. The normal blood pressure in the lungs is 30-35mmHg systolic and 12-15mmHg diastolic. This is much lower than the normal systemic blood pressure of 120/80mmHg. Elevated pulmonary blood pressure results from increased resistance to blood flow. This can occur secondary to a number of causes, including lung or airway disease (e.g., severe chronic bronchitis or tracheal collapse, lung parasites, scar tissue formation known as pulmonary fibrosis), heartworm disease, blood clots or pulmonary embolism, chronic left heart disease (pulmonary venous hypertension), and idiopathic (undetermined) etiologies.

Clinical signs of pulmonary hypertension can include decreased exercise capacity, lethargy, rapid or labored breathing, coughing, fainting/collapse, abdominal distension, and possibly gastrointestinal signs such as poor appetite, vomiting, or diarrhea.

Treatment varies, depending on the underlying cause. Many patients can be treated with pulmonary vasodilator drugs to improve pulmonary blood flow. Additional medications are often used in conjunction with pulmonary vasodilator drugs in order to manage the underlying lung disease, left heart disease, or pulmonary embolism.

Prognosis for dogs with severe pulmonary hypertension is highly variable (8 to >700 days in one study), and is probably best predicted by initial response to vasodilator therapy. Unfortunately, patients with severe pulmonary hypertension are at risk for right-sided congestive heart failure, syncope, and sudden death.