# **CONGESTIVE HEART FAILURE**



- Congestive heart failure (CHF) is a condition that results from severe heart disease.
- Congestive heart failure is a difficult terminology for many pet guardians, because the word "failure" makes it sound like the heart is immediately dying or stopping. This is not the case. Congestive heart failure essentially means that the heart can no longer compensate for the severe leak without medical intervention. Medical intervention will also improve/resolve most clinical signs of congestive heart failure.
- Signs of congestive heart failure include cough and/or an increased respiratory rate while sleeping/resting, increased respiratory effort, lethargy, or collapse with exercise (syncope).

## Monitoring

#### Sleeping Respiratory Rate

- Count the number of times your pet's chest goes up and down over 15 seconds. Multiply this number by 4 to obtain breaths per minute.
- A sleeping respiratory rate less than 30 breaths per minute is not consistent with congestive heart failure.
- A sleeping respiratory rate greater than 50 breaths per minute may indicate an emergency and your pet should be evaluated immediately.

#### Chest X-rays

Chest x-rays are taken to evaluate for the presence of pulmonary edema and to evaluate heart size.

### Bloodwork

Many cardiac medications can adversely affect the kidneys. For this reason, it is important to monitor kidney function with blood tests as new medications are introduced or dosage changes are made.

## **Commonly Used Medications:**

- (1) **Furosemide (Lasix)**. Furosemide is a diuretic used to treat heart failure, by removing fluid from the lungs. It commonly causes increased drinking and urination.
- (2) **Spironolactone**. Spironolactone is a weak diuretic and aldosterone antagonist which can help prevent retention of water and sodium.
- (3) **Pimobendan (Vetmedin).** Pimobendan is an inodilator: a combination of positive inotrope (improves contraction of the heart) and vasodilator (dilates blood vessels). This results in more efficient contraction of the heart.
- (4) **ACE inhibitor (Benazepril or Enalapril).** An ACE (Angiotensin Converting Enzyme) inhibitor is a type of medication that prevents the production of Angiotensin II which promotes increased blood pressure and fluid retention.

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