



# EAST COAST VETERINARY CARDIOLOGY

## Theophylline

### **Drug Classification & Information**

Theophylline is classified as an oral bronchodilator. It also has mild diuretic effects. The bronchodilating effects are secondary to phosphodiesterase inhibition. This medication should be given with food to reduce risk for gastrointestinal side effects. Extending release products can be dosed once to twice daily whereas immediate release should be dosed three times daily.

### **Indications for Use**

Cough related to airway disease (primarily bronchitis), adjunctive therapy for the treatment of pulmonary hypertension due to phosphodiesterase inhibition. As can increase the heart rate as a side effect, may be prescribed for some animals with bradycardias (slow heart rate) including sick sinus syndrome and AV block.

### **Potential Drug Interactions**

Fluoroquinolone antibiotics (enrofloxacin, ciprofloxacin) can increase theophylline levels – when used in combination, should reduce theophylline dosage. Erythromycin and clindamycin also increase theophylline levels. Mexiletine can increase theophylline levels.

### **Drug Side Effects**

Side effects may be common with theophylline. The most common effects are restlessness, gastrointestinal upset (vomiting, diarrhea, reduced appetite) an increase in heart rate. May increase risk for seizures in patients with a previously diagnosed seizure disorder.

### **Therapeutic Monitoring**

When used for cough, monitor clinical response. If used for bradycardias, periodic electrocardiograms (ECGs) to follow efficacy. When used for pulmonary hypertension, periodic echocardiography to follow efficacy.

### **Dosage Forms**

Human: 100, 200, 300, 400, 450 & 600 mg tablets (extended release)

