

# Theophylline

Phosphodiesterase Inhibitor  
Bronchodilator



## Prescriber Highlights

- Bronchodilator used short-term to treat bronchospasm and cardiogenic pulmonary edema

Information about this drug was adapted from *Plumb's Veterinary Drugs*. Further details and more therapeutics can be found with a subscription at [plumbsveterinarydrugs.com](http://plumbsveterinarydrugs.com)

## Uses, Indications

- Used primarily for bronchodilatory effects in coughing animals
- Potentially beneficial in dogs with pulmonary arterial hypertension if the underlying cause is chronic obstructive pulmonary disease

## Contraindications, Precautions, Warnings

- **Contraindications**  
Patients with hypersensitivity to any xanthine drugs, including aminophylline, theobromine, or caffeine
- **Precautions**  
Patients with severe cardiac disease, seizures, gastric ulcers, renal or hepatic disease, severe hypoxia, or severe hypertension
- **Warnings**  
May cause or worsen pre-existing arrhythmias

## Side Effects

- CNS stimulation
- GI irritation
- Polyphagia, polydipsia, and polyuria

## Drug Interactions

- Multiple drug interactions can occur, which can both increase and decrease the effects of theophylline
- Additionally, theophylline can interact with several drugs (eg, benzodiazepines, propofol, ketamine), causing a decrease in efficacy of those drugs

## Monitoring

- Therapeutic efficacy and clinical signs of toxicity

## Client Information

- Giving with food may prevent stomach upset and vomiting
- Do not crush the tablets

## Dosage Forms

- No veterinary-labeled products are available
- Human-labeled products available for extra-label use include:
  - Theophylline capsules and tablets: 100 mg, 125 mg, 200 mg, 300 mg, 450 mg, 600 mg
  - Theophylline elixir: 80 mg/15 mL

—Compiled and summarized from *Plumb's Veterinary Drugs* by Shannon Palermo, VMD