

**AMINOPHYLLINE**  
**(am-in-OFF-ih-lin)**  
**Amoline, Truphylline**

**PHARMACOLOGICAL CLASSIFICATION:**

-xanthine derivative

**THERAPEUTIC CLASSIFICATION:**

-bronchodilator  
-smooth muscle relaxant

**MECHANISM OF ACTION:**

-acts at the cellular level after it is converted to theophylline  
-aminophylline is 79% theophylline  
-theophylline acts by either inhibiting phosphodiesterase or blocking adenosine receptors in the bronchi, resulting in relaxation of the smooth muscle

**INDICATIONS:**

-acute bronchospasm  
-bronchial asthma and COPD refractory to front-line medications

**CONTRAINDICATIONS:**

-cardiac arrhythmias  
-active peptic ulcer disease  
-seizure disorders

**PRECAUTIONS:**

-use cautiously in patients with history of cardiac disease, HTN  
-rapid administration may cause hypotension

**SIDE EFFECTS:**

-CNS: nervousness, restlessness, headache, seizures, muscle twitching  
-CV: palpitations, sinus tachycardia, hypotension, arrhythmias  
-RESP: tachypnea, respiratory arrest

**INTERACTIONS:**

-phenobarbital, tobacco, marijuana decrease effects of aminophylline

**DOSE:**

-5 - 6 mg/kg IV infused over 30 minutes  
-dilute 250-500 mg in 50-100 mL of D<sub>5</sub>W