

Theophylline

Theophylline is used to treat lung diseases such as asthma and COPD (bronchitis, emphysema). This medication is given regularly to prevent wheezing and shortness of breath.

Expected action

This medication works by relaxing muscles around the airways so that they open up and the patient can breathe easily. The medication again reduces the lung response to irritants. It reduces airway responsiveness to histamine, adenosine,

- Increasing blood pressure
- Anti-inflammatory effects
- Increasing renal blood flow

- Relaxing bronchial smooth muscle
- Increasing heart muscle contractility and efficiency
- Increasing heart rate (positive chronotropic)

Therapeutic uses

The main therapeutic uses of theophylline are aimed at

- Chronic obstructive pulmonary disease(COPD)
 - Asthma
- Blocks the action of adenosine; which is an inhibitory neurotransmitter that induces sleep, this contracts the smooth muscles and relaxes the cardiac muscle.
- Treatment of post-dural puncture headache

Side effects /adverse effects

- Nausea
- Abdominal pain
- Headache

- Trouble sleeping
 - Diarrhea
 - Irritability
 - Restlessness
 - Nervousness
 - Shaking

Food interactions

The patient under Theophylline medication should avoid foods or drinks that contain caffeine such as coffee, tea, cola, and chocolate. The continued use of these substances may increase the side effects caused by theophylline. The patient should avoid large amounts of these substances.

Details associated with medication

This medication should be used cautiously for patients who have cardiac arrhythmias as it may exacerbate them. Again theophylline medication should be administered cautiously to patients with cystic fibrosis, as increased theophylline clearance may occur in these patients .lastly theophylline medication should be used in caution to patients with peptic ulcer disease as the use of theophylline medication may exacerbate peptic ulcers.