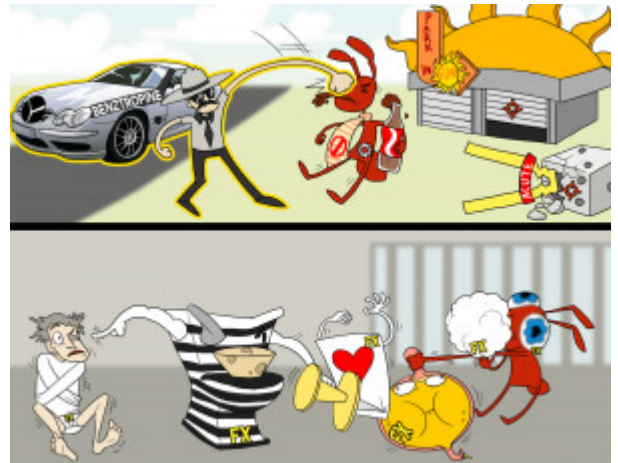


## Benzotropine (Cogentin)

Benzotropine (Cogentin) is a centrally acting anticholinergic medication that blocks the muscarinic receptors in the central nervous system. Benzotropine is indicated for Parkinson's disease and acute dystonia caused by antipsychotic medications. Side effects may include dry mouth, blurred vision, urinary retention, constipation, psychosis, and tachycardia. Since the elderly are less tolerant of CNS side effects (sedation, confusion, delusions), avoid administering benzotropine.



PLAY PICMONIC

### Mechanism

#### Anticholinergic

##### Ant-tie-cola

Benzotropine (Cogentin) blocks centrally acting muscarinic receptors and helps restore the natural balance of dopamine and acetylcholine in the brain. This helps resolve abnormal muscle contractions and results in improved muscle coordination. Anticholinergic side effects are common because the majority of muscarinic receptors are nearby parasympathetic nerves. Although benzotropine is centrally acting, this medication may also affect peripheral muscarinic receptors.

### Indications

#### Parkinson's Disease

##### Park-in-sun garage

The deficiency of dopamine associated with Parkinson's Disease results in excessive cholinergic activity. As an anticholinergic, benzotropine decreases acetylcholine's effect on the brain and minimizes tremors and stiff muscles associated with Parkinson's Disease.

#### Acute Dystonia

##### Acute-angle Dice-stone

Some antipsychotic medications block dopamine receptors and cause extrapyramidal symptoms, such as involuntary muscle movements or slurred speech. Benzotropine blocks centrally acting muscarinic receptors and decreases involuntary abnormal muscle contractions associated with antipsychotic medications.

### Side Effects

#### Blurred Vision

##### Blurry Eyes

Benzotropine may block cholinergic receptors in the eye and paralyze ciliary muscles; therefore, focusing on far objects and causing nearby objects to look blurred. Inform the patient about the risk of impaired vision and advise them to avoid driving or other possibly hazardous activity. Be sure to periodically measure the patient's intraocular pressure.

## **Dry Mouth**

### **Cotton Mouth**

Benzotropine may block the salivary glands and lead to xerostomia or dry mouth. This may lead to difficulties in swallowing or speaking and result in loss of appetite and weight. The health care provider may consider adjusting the patient's dosage of benzotropine or prescribing a different medication to avoid xerostomia. Frequently offer the patient ice and sips of water while ensuring strict oral hygiene.

## **Urinary Retention**

### **Urine Retained in bladder**

Benzotropine may inhibit the binding of acetylcholine at muscarinic receptors M(2) and M(3) on detrusor smooth muscle cells and other structures within the bladder wall. This leads to decreased muscular tone of the bladder wall and causes urinary retention. Minimize the risk of urinary retention by advising the patient to void immediately prior to taking benzotropine. Severe urinary retention may require catheterization or administration of a muscarinic agonist (i.e., bethanechol). Monitor the patient's intake and output.

## **Tachycardia**

### **Tac-heart-card**

This drug may block parasympathetic nerves of the heart and cause cardiac dysrhythmias. Instruct the patient to notify their healthcare provider if experiencing palpitations, tachycardia, or irregular heartbeat. Monitor vital signs and observe for symptoms of weakness, dizziness, or peripheral edema.

## **Constipation**

### **Corked-con-toilet**

Benzotropine may block the muscarinic receptors of the intestinal tract. This leads to decreased tone and motility of the intestinal smooth muscle and results in constipation. Benzotropine is contraindicated in patients with low intestinal muscle tone. Advise the patient to minimize the effects of constipation by increasing dietary fiber, fluids, and physical activity.

## **Psychosis**

### **Psycho in straight-jacket**

Benzotropine may cause CNS excitation. Inform the patient that benzotropine may cause visual hallucinations, vivid dreams, or paranoia. If the patient taking this medication begins experiencing symptoms of psychosis, the administration of the drug should be stopped. Avoid administering first-generation antipsychotics to relieve psychotic symptoms, because the medication's dopamine-blocking actions will intensify motor symptoms. Psychotic symptoms can be treated with clozapine or quetiapine.