

### Commonly Prescribed For...

Allergic Rhinitis	Hay Fever	Insomnia
Nasal Congestion	Anaphylaxis	Urticaria
Motion Sickness	Angioedema	Drug Fevers
Parkinson-like Reactions		

### Indications

Allergy Symptoms

Sedative

Anticholinergic-Properties: Antihistamines effect the secretions of the lacrimal, salivary, and respiratory mucosal glands.

### What is Histamine?

**Released By:** mast cells, basophils, and other cells in response to antigens circulating in the blood.

**Mechanism Of Action:** bind to/activate cells in the nose, eyes, respiratory tract, GI tract, and skin, producing characteristic allergic S&S

### MOA - Receptor Antagonist & Inverse Agonist

**H Receptor Antagonist:** Competes with histamine at the unoccupied H receptor sites of basophil and mast cells in the smooth muscle surrounding blood vessels and bronchioles.

**Inverse H Receptor Agonist:** Binds to the H receptors and instead of taking up the space, induce the opposite effect of a histamine.

**First Generation:** Strong sedative effect, can increase the effect of opioids analgesics and some non-opioid analgesics. Can be used as an analgesic itself in some cases (orphenadrine)

**Second Generation:** Less likely to cause adverse effects on the heart, central nervous system and other organs than first generation antihistamines. Have a less sedative effect because they cross the blood-brain barrier slower and act mainly on peripheral receptors. Have a longer duration of action.

**Third Generation:** Stimulant and nootropic effects.

**Fourth Generation:** Immunomodulatory effects

**NOTE:** Antihistamines do not block histamine release, antibody production, or antigen-antibody reactions. They also don't push off histamines from receptor sites.

### Generic & Trade Names

Generic	Trade	Route
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#### Peripherally Acting

Loratadine	Claritin	Tablet (10mg), Soft Gel Capsule (10mg), Syrup (1mg/ml)
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### Generic & Trade Names (cont)

Cetirizine Hydrochloride

Fexofenadine Hydrochloride

#### Traditional

Diphenhydramine	Aller-Aide®, Allernix®,	caplets, capsules, chewable tablets, liquid, injection, spray,
Hydrochloride	Benadryl®, others	creams, lotions

### Name Endings

-astine	Antihistaminics
-azoline	Antihistaminic, local vasoconstrictor
-izine/izine/yzine	Antihistaminic, peripheral/cerebral vasodilator
-tadine	H1-receptor antagonists, tricyclic compounds
-tidine	H2-receptor antagonists, cimetidine derivatives

### Precautions & Contraindications

Impaired Kidney Function	Pyloric Obstruction	BPH
Severe Liver Disease	Prostatic Hypertrophy	Children <6yrs
Peptic Ulcer Disease	Hypersensitivity	Pregnancy
Cardiovascular Disease	Seizure Disorders	Hyperthyroidism
Pulmonary Disease (COPD)	Angle-Closure Glaucoma	

### Interactions

Interactions	Increases	Decreases
MAO Inhibitors	Anticholinergic Properties	
CNS Depressants	Sedation Effects	

CNS Depressants: Alcohol, antidepressants, opioid analgesics, sedatives & hypnotics

### Side Effects

#### Cardiovascular

Dysrhythmia	Palpations	Syncope	Hypotension
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#### CNS

Paradoxical Excitement	Sedation	Nervousness	Dizziness
Muscular Weakness	Restlessness	Seizures	

#### Gastrointestinal

Nausea & Vomiting	Hepatitis	Diarrhea	Constipation
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#### Other

Visual Disturbances	Xerostomia	Tinnitus	Vertigo
Dry Nose & Throat	Headache	Urinary Retention	

### Assessments

**Nausea & Vomiting:** Assess the degree and frequency of nausea and the amount of emesis when administering for nausea and vomiting

**Anxiety:** Assess mental status, mood, and behavior when administering for anxiety.

**Pruritus:** Observe character, location, and size of affected area when administering for pruritis skin conditions.

**Respiratory:** Assess lung sounds for bronchial secretions. Maintain fluid intake (1500-200ml/day) to decrease viscosity secretions.

**Allergy Symptoms:** Assess for this before and periodically throughout treatment.

**IV Therapy:** Assess BP and RR before and throughout IV therapy.

### Nursing Diagnosis

Ineffective Airway Clearance	Indications
Risk for Injury	Adverse Reactions
Deficient Knowledge (Disease Process/Medication Regimen)	Patient/Family Teaching

### Implementation

**Prophylaxis of Motion Sickness:** Administer 30min-2hrs before exposure to motion sickness inducing conditions.

**Concurrent Use w/ Opioid Analgesics:** Supervise ambulation to prevent injury secondary to increased sedation.

### Patient Education

**Drowsiness:** Inform patient they may feel drowsy. Avoid driving and activities requiring alertness.

**Sedation:** Caution patient to avoid concurrent use of alcohol or CNS depressants.

**Xerostomia:** Advise patient good oral hygiene, frequent mouth rinsing with water, and sugarless gum/candy may relieve from mouth dryness

**Persistent Symptoms:** Inform patient to contact a health care professional if symptoms persist.

### Evaluation/Desired Outcomes

Decrease/Prevent nausea	Decrease allergic S&S
Decrease/Prevent vomiting	Relieve pruritus
Sedation when used as a hypnotic	Decrease anxiety

### Additional Notes

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### References

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<https://www.myvmc.com/medical-dictionary/second-generation-anti-histamines/>