

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES



*Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai
Approved by Pharmacy Council of India, New Delhi.*

Coimbatore -641035

COURSE NAME : MEDICINAL CHEMISTRY II (BP 501 T)

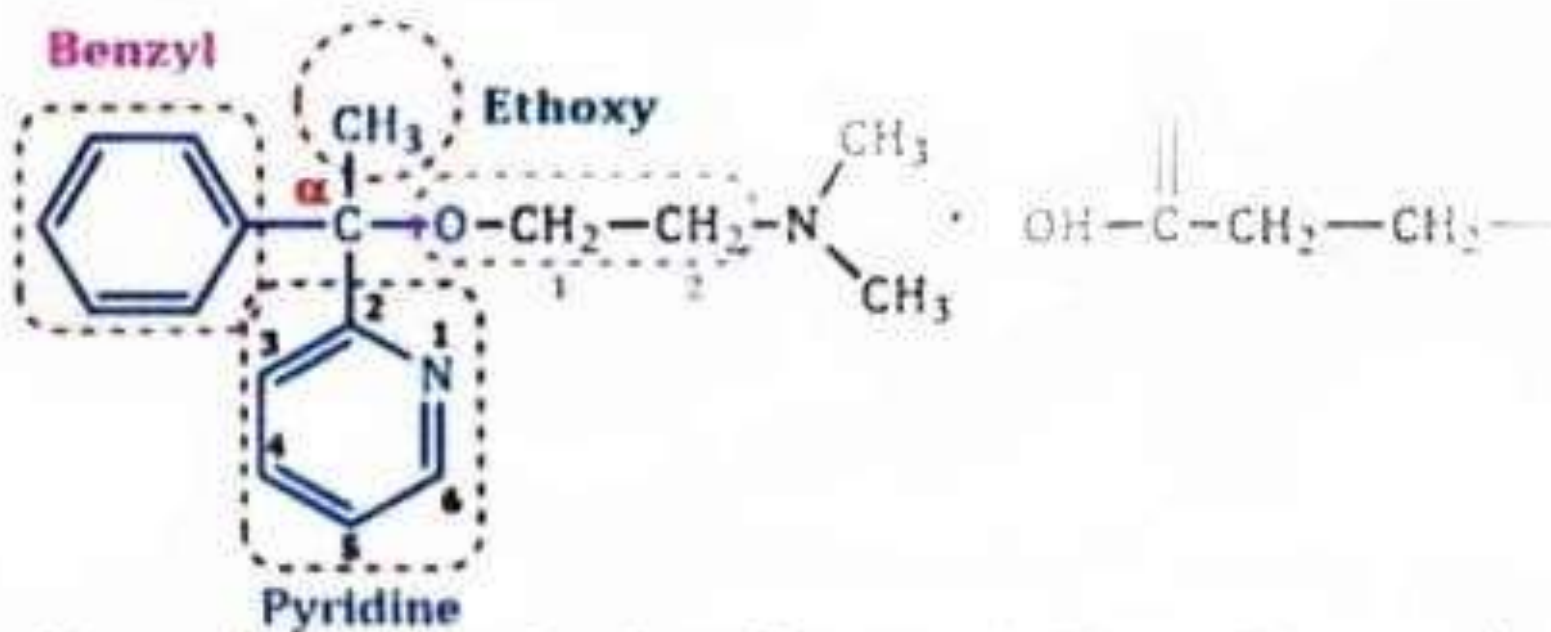
III YEAR / V SEM

TOPIC 1 : ANTIHISTAMINIC AGENTS

SUB TOPIC : H1 ANTAGONIST

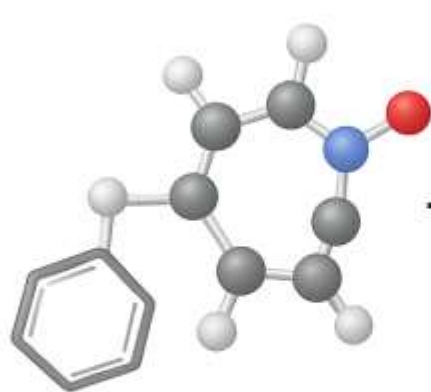
PART -II

Doxylamine succinate

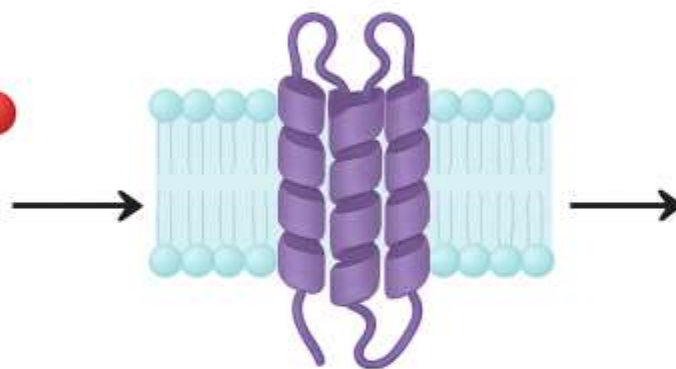


2-[α -[2-(dimethyl amino) ethoxy]- α -methylbenzyl]-pyridine succinate

MECHANISM OF ACTION OF DOXYLAMINE SUCCINATE



DOXYLAMINE



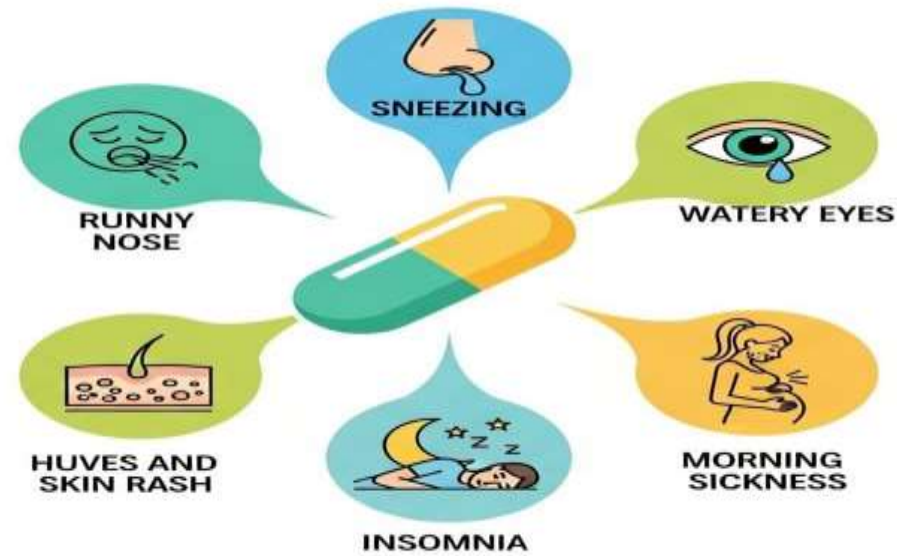
CROSSES BBB
→ BINDS H₁
RECEPTOR (GPCR)



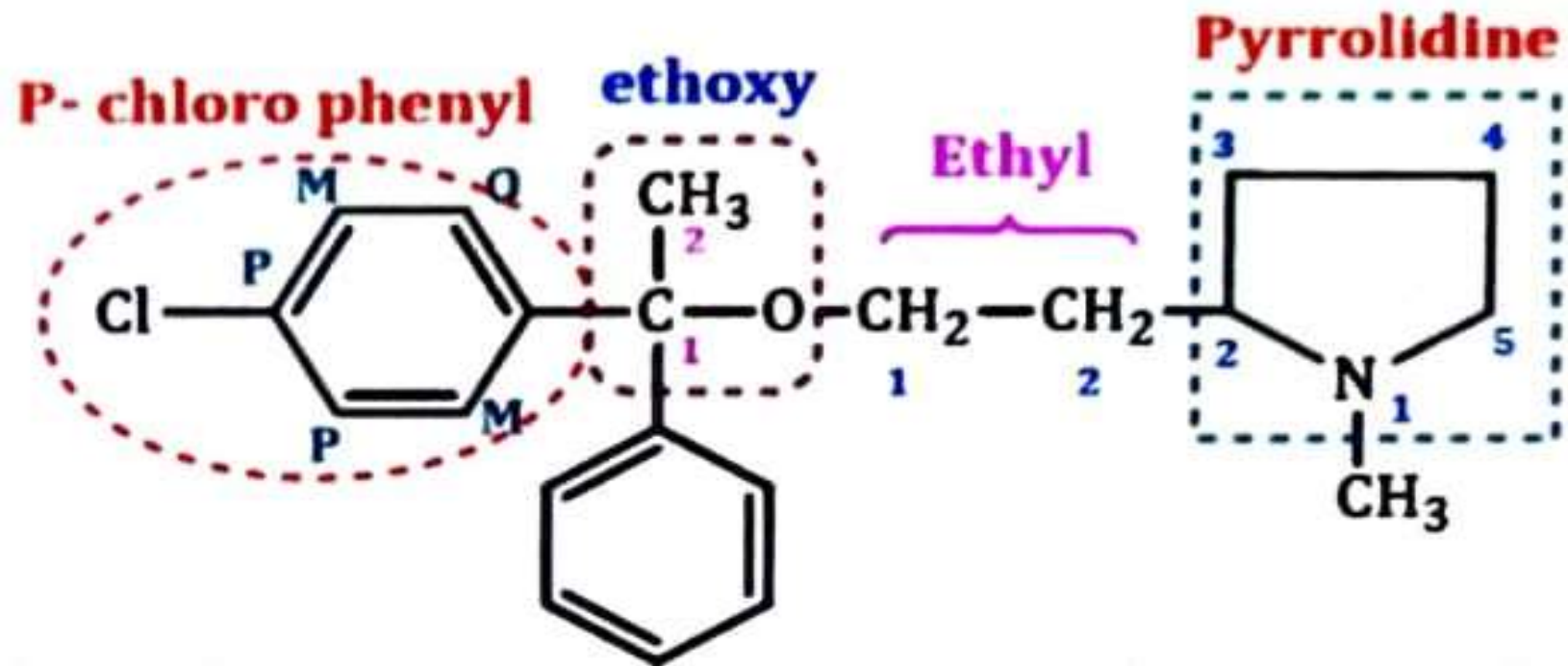
BLOCKS HISTAMINE
BINDING → STOPS
G-PROTEIN SIGNALING

REDUCES ALLERGY SYMPTOMS + CAUSES SEDATION

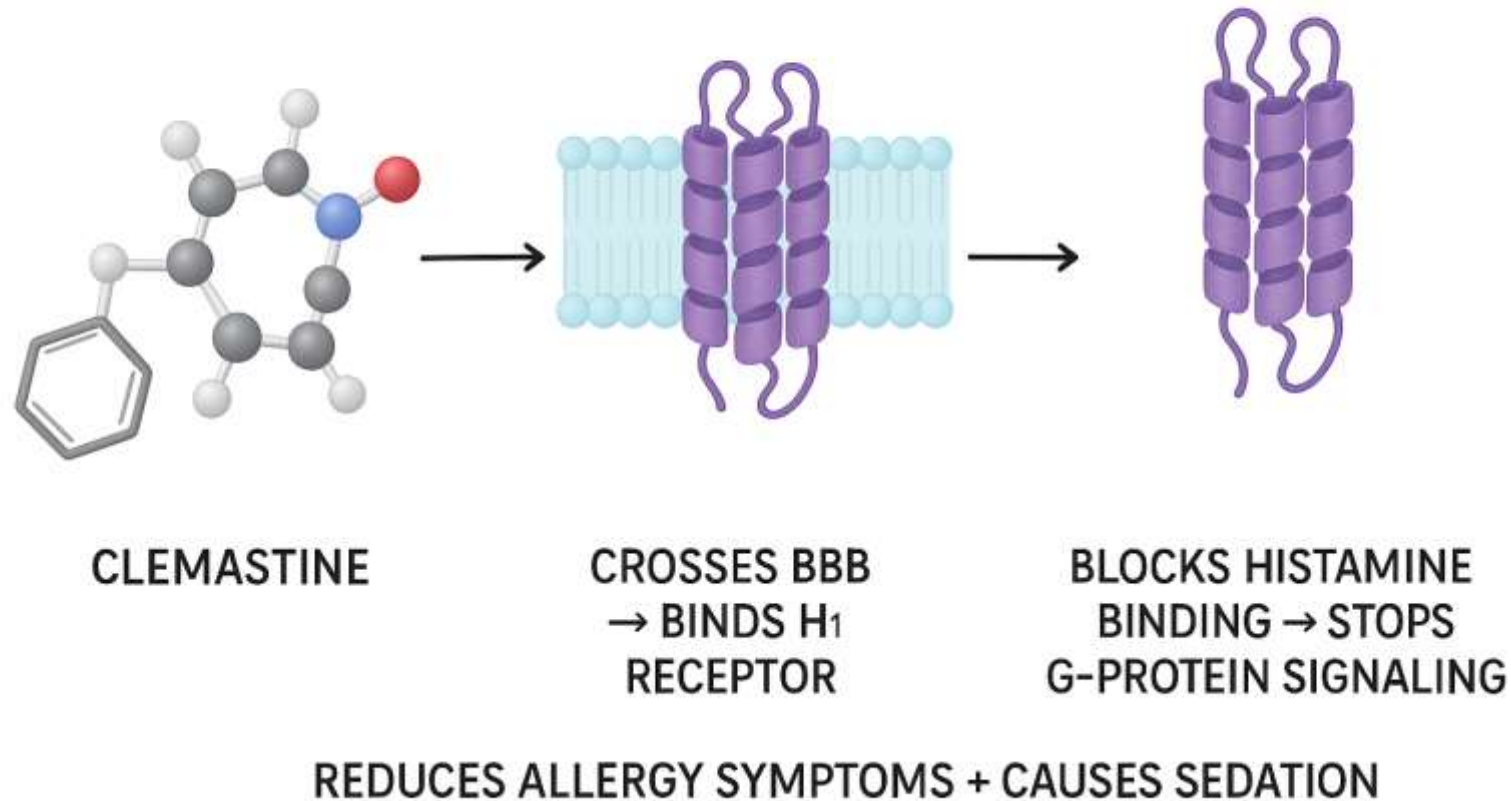
Uses



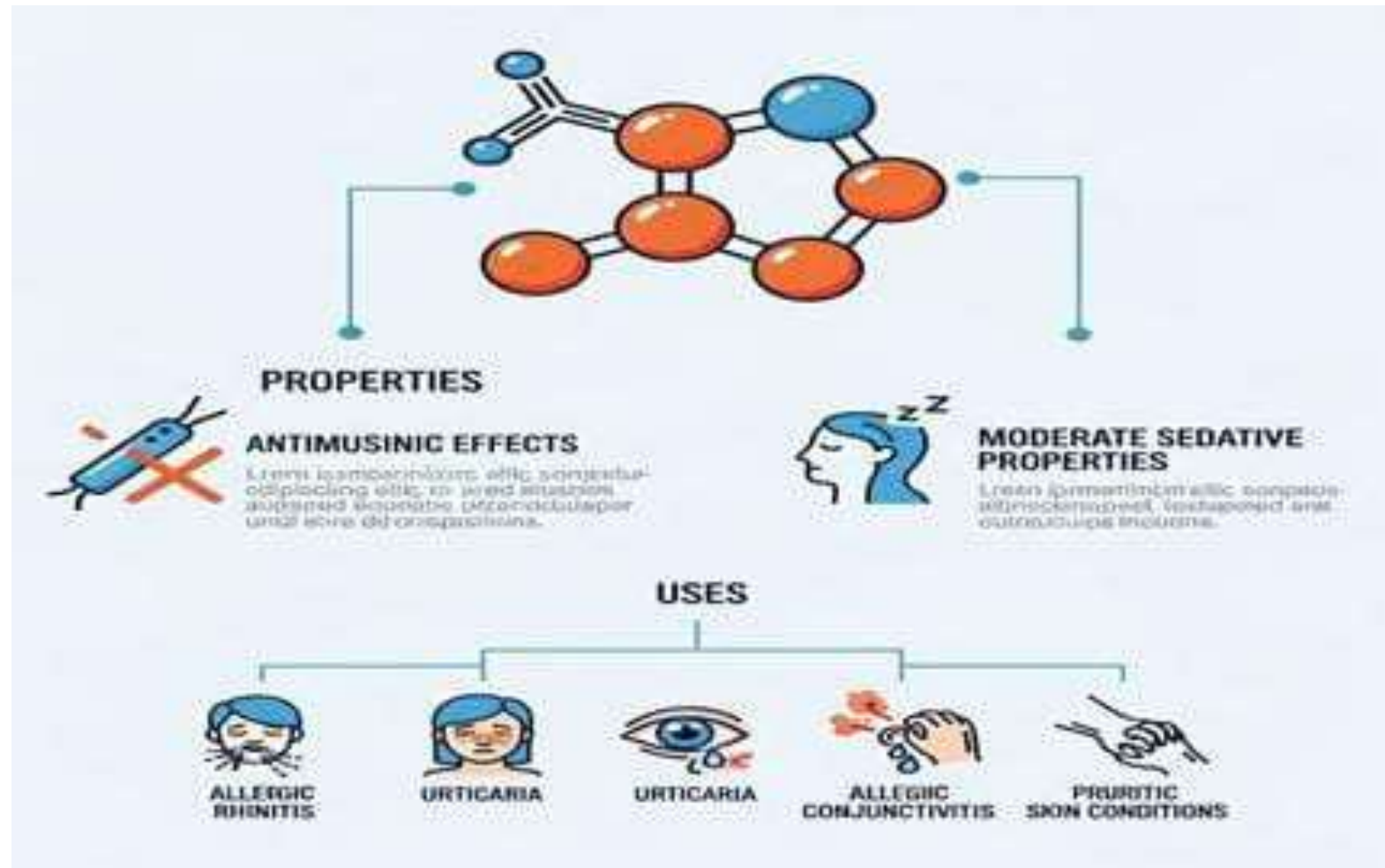
Clemastine Fumarate



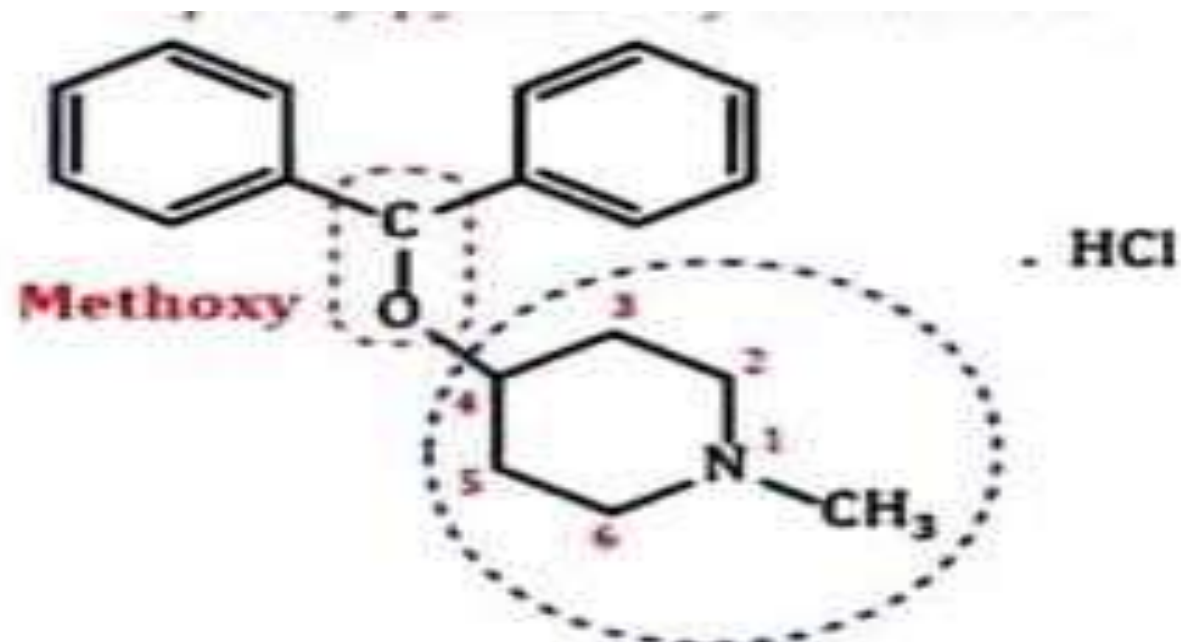
MECHANISM OF ACTION OF CLEMASTINE



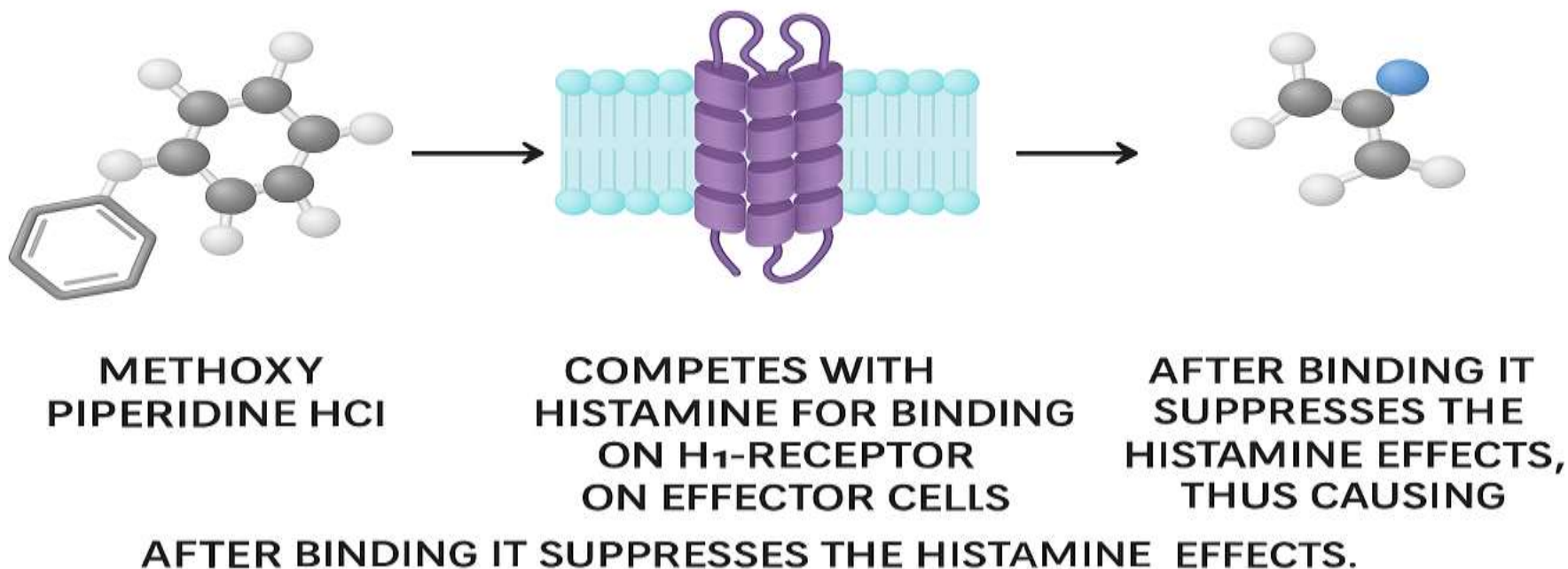
Uses



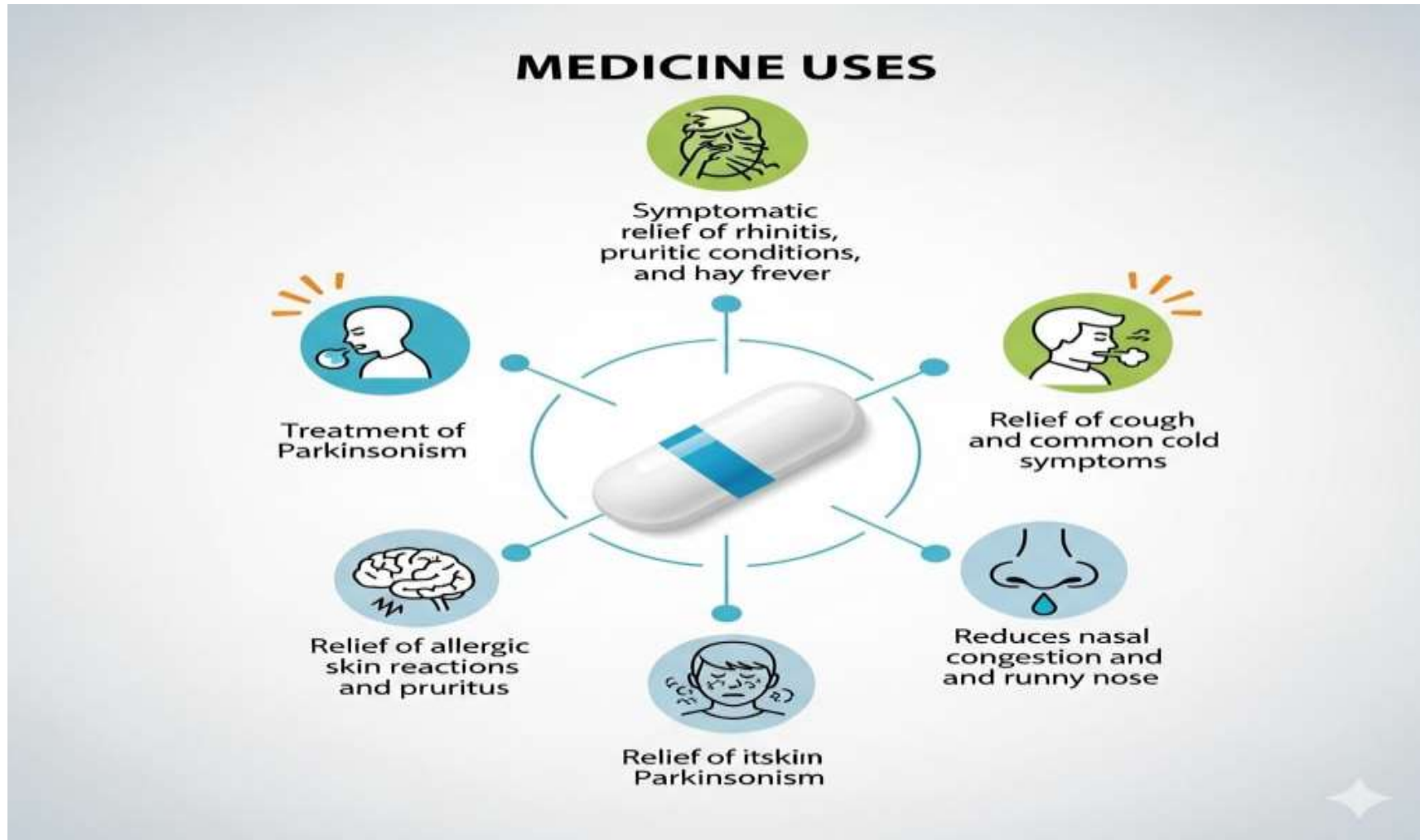
Diphenylpyraline hydrochloride



MECHANISM OF ACTION OF METHOXY PIPERIDINE HCL



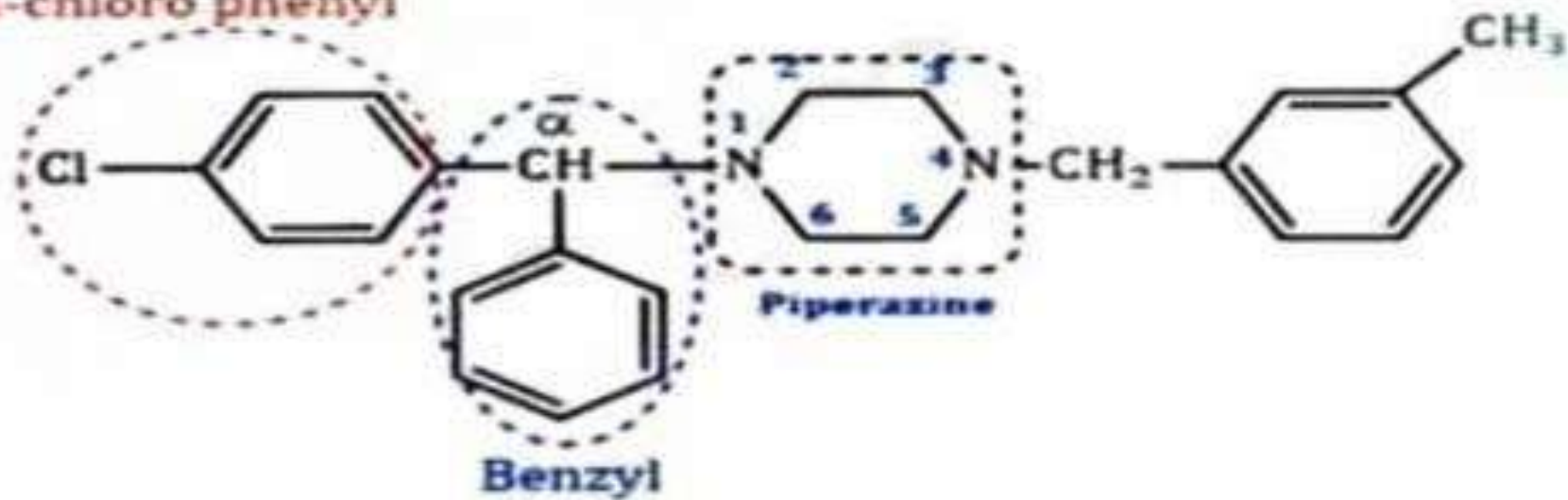
Uses



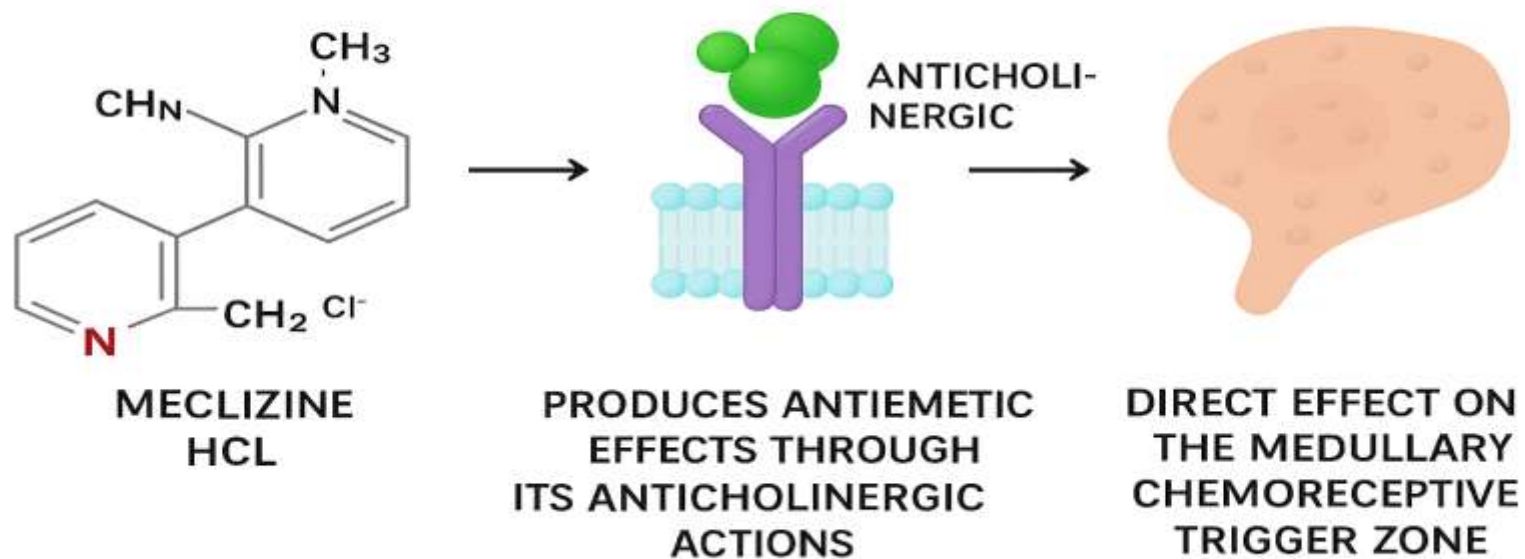
Meclizine hydrochloride

Meclizine hydrochloride

Para-chloro phenyl



MECHANISM OF ACTION OF MECLIZINE HCL

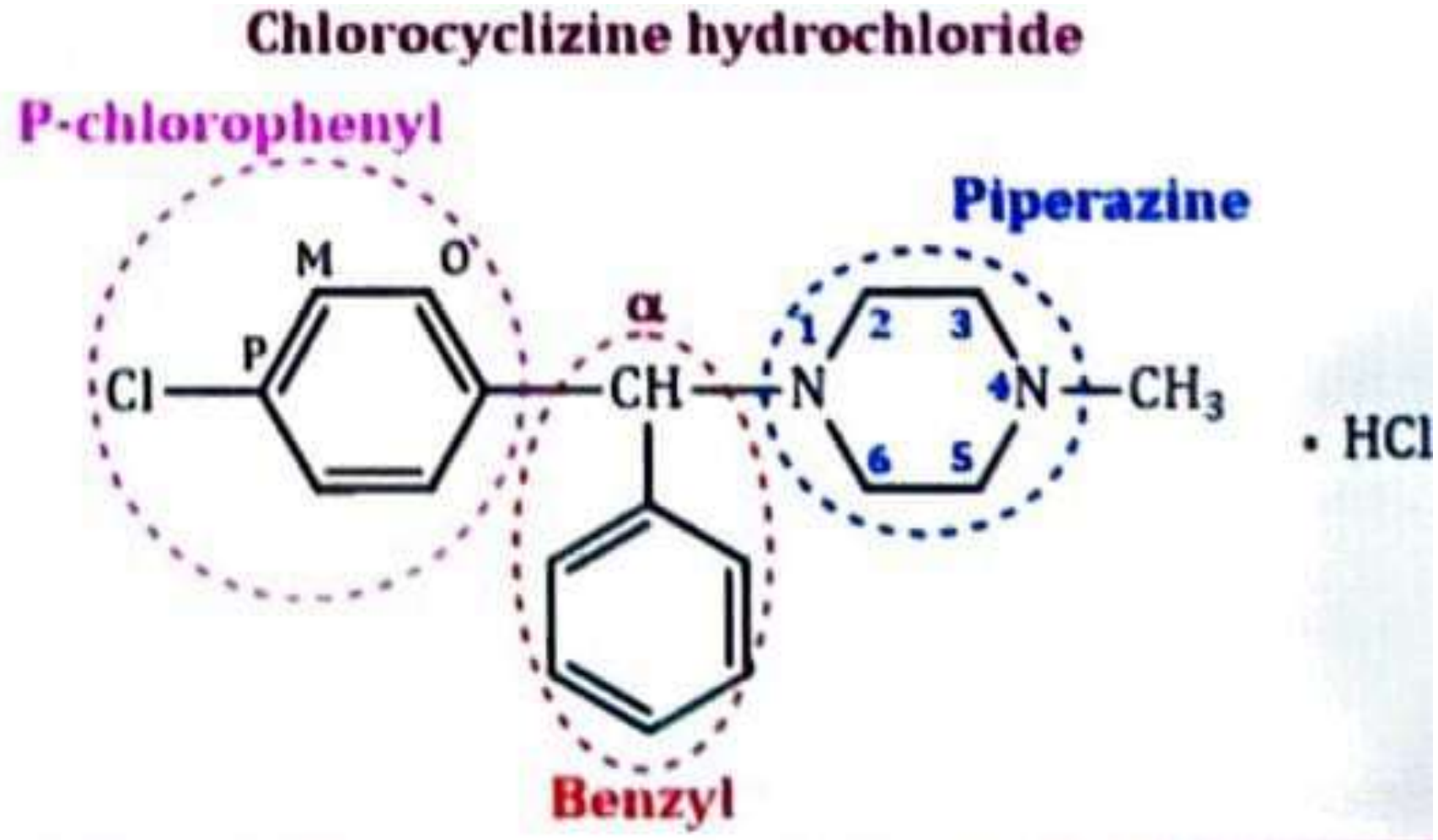


Uses

-  **Sneezing**
-  **Runny Nose**
-  **Itching**
-  **Watery Eyes**
-  **Hives**
-  **Rashes**



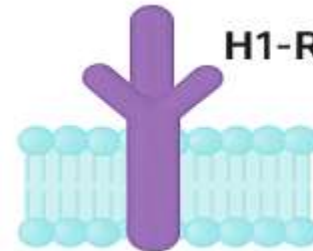
Chlorcyclizine hydrochloride



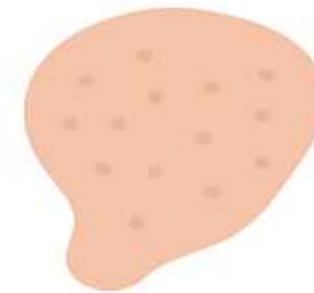
MECHANISM OF ACTION OF TRIPLENNAMINE



TRIPLENNAMINE



H1-RECEPTOR



**BLOCKS THE
ACTION OF
ENDOGENOUS
HISTAMINE**

...thus temporarily relieving the
negative symptoms caused by histamine

Uses

ALLERGY RELIEF: UNDERSTAND YOUR MEDICATION

WHAT IT TREATS



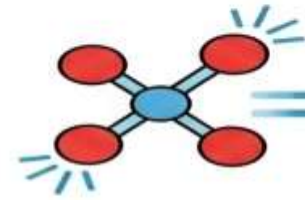
Urticaria



Hay Fever/
Allergic
Rhinitis

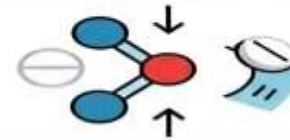


Allergies



Hay Fever,
Allergic Rhinitis

HOW IT WORKS



Antihistamine
histamine or ton-
boced the side if not

KEY BENEFITS



Fast-Acting



Non-Drowsy Formula (or mentine
typical side side effects)



Long-Lasting Relief



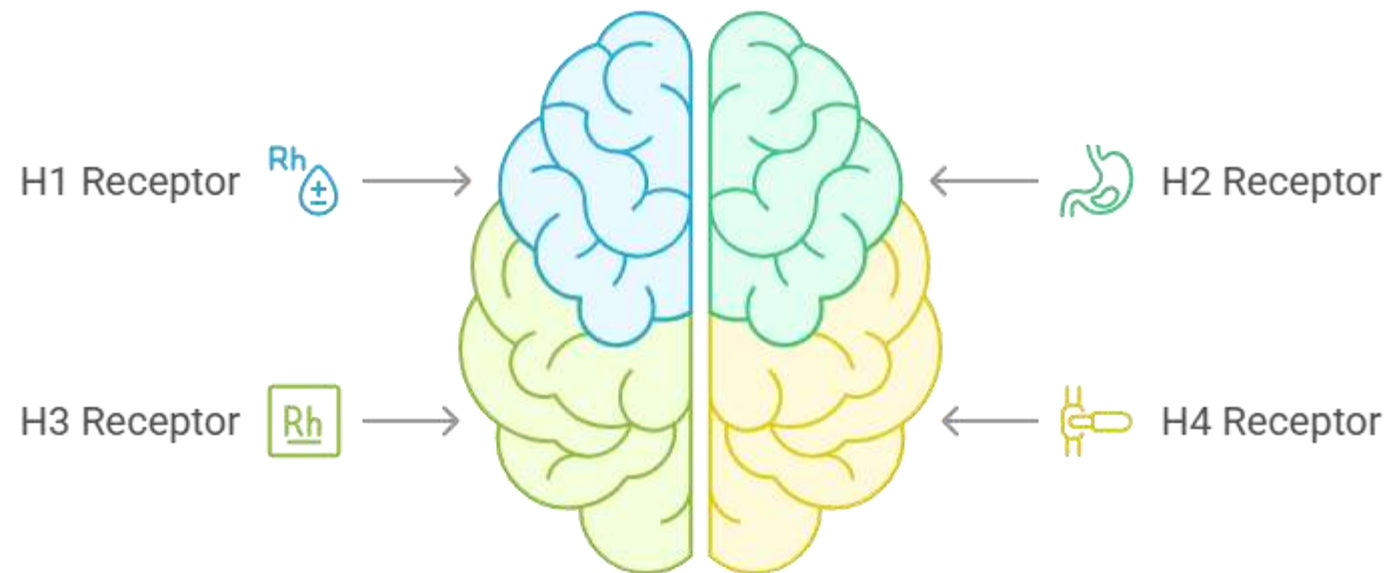
Effective for Multiple Symptoms

☐ Consult your doctor or pharماسit for personalized advice

Which receptor do antihistamines primarily block?



Antihistamine Receptor Blockage

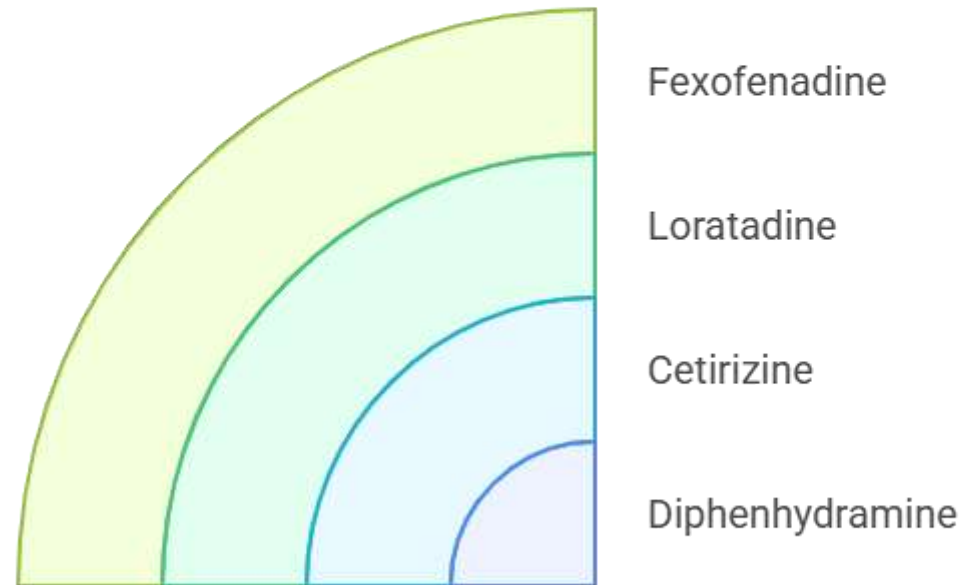


Made with  Napkin

Which antihistamine is most likely to cause drowsiness?



Antihistamine Drowsiness Potential



Made with  Napkin

REFERENCES

- Katzung, B. G., et al. (2021). *Basic and Clinical Pharmacology*, 15th Edition. McGraw-Hill Education.
- Rang, H. P., Dale, M. M., et al. (2016). *Rang and Dale's Pharmacology*, 8th Edition. Elsevier.
- Tripathi, K. D. (2018). *Essentials of Medical Pharmacology*, 8th Edition. Jaypee Brothers.
- Goodman & Gilman's The Pharmacological Basis of Therapeutics, 13th Edition. McGraw-Hill Education.

