

ANTI-TUSSIVES

Remove the irritant

Expectorant - removes mucus from bronchioles

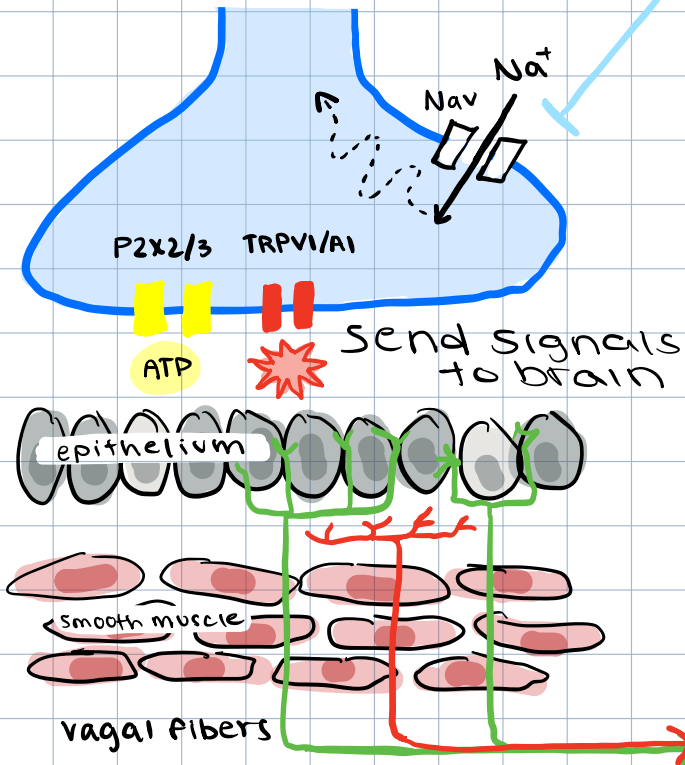
Guaifenesin - MOA unclear. ↓ mucus viscosity / secretion?

Mucolytic - chemically degrades proteins that form mucus

N-acetylcysteine
reduce disulfide bonds to degrade mucin

Irritant enters bronchiole

↓
Stimulate neuronal receptors in the bronchioles



Inhibit cough signaling

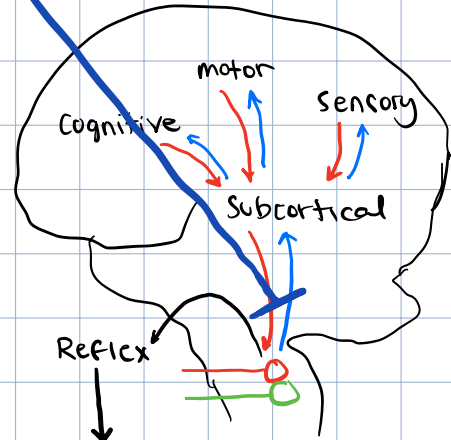
Peripheral - acting

Benzonatate - interferes with sensory neuron detection of irritant in bronchioles → irritant less likely to trigger response signal

Centrally - acting

Codeine - block transmission of cough signal both pre- and post-synaptically.

Dextromethorphan - glutamate (NT) antagonist. Interrupts processing of cough signal downstream
Toxicity: **dissociative effects**



Stimulates cough muscles

DECONGESTANTS

ANTIHISTAMINES - H1 Receptor Antagonists

Block action of Histamine

- Released from mast cells during allergic response
- Promotes vasodilation and capillary permeability → cause swollen nasal mucous membranes

1st generation - cross BBB

Diphenhydramine - benedryl

Promethazine

Histamine promotes wakefulness → **drowsiness**

2nd generation - DON'T cross BBB

Loratadine - claritan

Fexofenadine - allegra

Cetirizine - zyrtec

α1 AGONISTS

Reduce nasal mucous membrane swelling by reducing blood flow through vasoconstriction.

Pseudoephedrine

Phenylephrine

Toxicities: ↑bp through **vasoconstriction** - use w/ caution in patients with hypertension.