

Ephedrine

Ephedrine is an indirect sympathomimetic that works to release stored catecholamines, such as norepinephrine, from sympathetic neurons. This drug is an agonist at α and β adrenergic receptors. It has effects similar to, but less potent than epinephrine. It is indicated for use in rhinitis, hypotension and urinary incontinence.



PLAY PICMONIC

Mechanism of Action

Alpha Agonist

Afro Dragonist

Ephedrine has α agonist activity. Ephedrine works to release stored catecholamines and is an indirect general agonist. This drug works to constrict smooth muscle of resistance blood vessels, such as those in the skin and splanchnic beds, causing increased peripheral resistance and venous return.

Beta Agonist

Beta-fish Dragonist

Ephedrine acts on both β_1 and β_2 adrenergic receptors and acts to increase heart rate and contractility. Furthermore, it increases lipolysis and renin release, while causing vasodilation. Drugs acting on β receptors also decrease uterine tone, lead to ciliary muscle relaxation and increase aqueous humor production.

Indications

Rhinitis

Runny-nose

Ephedrine is indicated for nasal decongestion.

Hypotension

Hippo-BP

Ephedrine is indicated for orthostatic hypotension, due to the β_1 agonist effect of increased blood pressure.

Urinary Incontinence

Urine In-continents

Ephedrine can be used to treat urinary incontinence, as it works to constrict urinary sphincters and vasoconstricts renal arteries.