

Norepinephrine

Norepinephrine is a catecholamine and direct sympathomimetic drug that is indicated for hypotension, and has a side effect of decreased renal perfusion. It also has use in treatment of depression and attention disorders. It acts as an α_1 agonist, affecting both α_1 and α_2 receptors and is an agonist at β_1 receptor effects as well.



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Mechanism of Action

Alpha Agonist

Afro Dragonist

Norepinephrine is a direct agonist at α receptors, affecting both α_1 and α_2 receptors. It also has acts at β_1 receptors, with little activity at β_2 receptors.

Beta1 Agonist

Beta-fish (1) Wand Dragonist

Norepinephrine is an α_1 and α_2 adrenergic receptors. Activity at β_1 receptors leads to increased heart rate, increased heart contractility, increased renin release and lipolysis. Norepinephrine has little activity at β_2 adrenergic receptors.

Indications

Hypotension

Hippo-BP

This drug will raise diastolic blood pressure and total peripheral resistance, more so than epinephrine due to its vasoconstrictor activity and lack of effect on β_2 receptors in the skeletal muscle vascular bed. It is used in emergencies such as neurogenic or septic shock. It should be noted that norepinephrine also has use in treatment of attention disorders and in depression.

Side Effect

Decreases Renal Blood Flow

Down-arrow Kidney Blood

Decreased renal blood flow may be seen with norepinephrine administration, causing impaired kidney function.