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Nicotine

National Cancer Institute

Source

National Cancer Institute. *Nicotine*. NCI Thesaurus. Code C691.

A plant alkaloid, found in the tobacco plant, and addictive central nervous system (CNS) stimulant that causes either ganglionic stimulation in low doses or ganglionic blockage in high doses. Nicotine acts as an agonist at the nicotinic cholinergic receptors in the autonomic ganglia, at neuromuscular junctions, and in the adrenal medulla and the brain. Nicotine's CNS-stimulating activities may be mediated through the release of several neurotransmitters, including acetylcholine, beta-endorphin, dopamine, norepinephrine, serotonin, and ACT H. As a result, peripheral vasoconstriction, tachycardia, and elevated blood pressure may be observed with nicotine intake. This agent may also stimulate the chemoreceptor trigger zone, thereby inducing nausea and vomiting.