

[Open Peer Review on Qeios](#)

Entacapone

National Cancer Institute

Source

National Cancer Institute. *Entacapone*. NCI Thesaurus. Code C61746.

A nitrocatechol compound with anti-parkinsonian property. Entacapone is a selective and reversible inhibitor of catechol-O-methyltransferase (COMT), which catalyzes the transfer of the methyl group of S-adenosyl-L-methionine to the phenolic group of substrates that contain a catechol structure including dihydroxyphenylalanine (DOPA), catecholamines (dopamine, norepinephrine, and epinephrine) and their hydroxylated metabolites. When administered in conjunction with dopaminergic agents such as L-DOPA, entacapone prevents the metabolism and inactivation of adjunct drugs, thereby increasing the bioavailability of these compounds by facilitating their passage across the blood-brain barrier.