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Tolcapone

National Cancer Institute

Source

National Cancer Institute. *Tolcapone*. NCI Thesaurus. Code C47762.

A benzophenone derivative and a catechol-O-methyltransferase (COMT) inhibitor. Tolcapone selectively and reversibly inhibits COMT, an enzyme that catalyzes the metabolism of biologically active catechols and their hydroxylated metabolites by transferring the methyl group of S-adenosyl-L-methionine to the phenolic group of catechol-containing substrates. When given in conjunction with a peripheral dopa decarboxylase inhibitor and levodopa, tolcapone may prevent the metabolism of levodopa to 3-methoxy-4-hydroxy- L-phenylalanine (3-OMD) in the brain and peripheral tissues leading to increased bioavailability and enhancement of delivery to the central nervous system (CNS) of levodopa.