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1: [CNS Neurosci Ther.](#) 2008 Winter;14(4):352-65.

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**Simultaneous manipulation of multiple brain targets by green tea catechins: a potential neuroprotective strategy for Alzheimer and Parkinson diseases.**

[Mandel SA](#), [Amit T](#), [Weinreb O](#), [Reznichenko L](#), [Youdim MB](#).

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Current therapeutic approaches for Alzheimer and Parkinson disease (AD and PD, respectively) are merely symptomatic, intended for the treatment of symptoms, but offer only partial benefit, without any disease-modifying activity. Novel promising strategies suggest the use of antiinflammatory drugs, antioxidants, iron-complexing molecules, neurotrophic factor delivery, inhibitors of the amyloid precursor protein (APP)-processing secretases, gamma and beta (that generate the amyloid-beta peptides, Abeta), anti-Abeta aggregation molecules, the interference with lipid cholesterol metabolism and naturally occurring plant flavonoids to potentially reverse the course of the diseases. Human epidemiological and new animal data suggest that tea drinking may decrease the incidence of dementia, AD, and PD. In particular, its main catechin polyphenol constituent (-)-epigallocatechin-3-gallate (EGCG) has been shown to exert neuroprotective/neurorescue activities in a wide array of cellular and animal models of neurological disorders. In the current article, we review the literature on the impact of the multimodal activities of green tea polyphenols and their neuroprotective effect on AD and PD.

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