J Neural Transm Suppl. 2006;(70):177-80.

Nicotine induces brain CYP enzymes: relevance to Parkinson's disease.

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Abstract

Brain expression of cytochromes P450 2B6, 2D6 and 2E1 is higher in smokers, and is induced by nicotine in animals. These enzymes can metabolize many of the neurotoxins associated with Parkinson's disease. Since smoking is known to be protective against Parkinson's disease, we hypothesise that nicotine-induced elevation of brain CYPs in smokers may contribute to neuroprotection against Parkinson's disease. This supports the therapeutic use of nicotine to delay the progress of this disease.

PMID: 17017527 [PubMed - indexed for MEDLINE]