

## Drug Evaluations

# Effects of [rotigotine](#) on Parkinson's disease-related sleep disturbances

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**Introduction:** Sleep abnormalities are a frequent non-motor symptom and a prominent cause of disability in patients with Parkinson's disease (PD).

**Areas covered:** This review discusses what is currently known about the characteristics of sleep disturbances in PD patients and attempts to clarify the role of dopaminergic pathways in their pathogenesis as well as the beneficial effect of dopaminergic agents in their treatment. In particular, this review will focus on the effects of transdermal [rotigotine](#) on improving PD-related sleep disorders.

**Expert opinion:** Sleep disturbances are common in PD, and these disturbances can be reduced or resolved, in large part, by preventing or attenuating nocturnal and early morning motor and non-motor symptoms of PD. The studies discussed within this review suggest that sleep disorders are not just a consequence of motor impairment and dopaminergic therapy but are an integral part of the neurodegenerative process of PD. This is supported by the appearance of specific sleep disturbances, which are related to degeneration of the brainstem areas involved in the regulation of sleep/wake states in advance of typical PD symptoms. Development of more detailed diagnostic tools aimed at detecting sleep disturbances and at defining the main causative factors of sleep disturbances in PD will lead to improved treatment of these disturbances.

## Keywords

[dopamine](#), [Parkinson's disease](#), [rotigotine](#), [sleep disturbance](#)

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