

# A Comprehensive Review of Parkinson Disease

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**Abstract:** *This comprehensive review article explores the multifaceted landscape of Parkinson's disease (PD), encompassing its etiology, pathophysiology, clinical manifestations, diagnosis, and treatment approaches. Beginning with an introduction that provides context and prevalence data, the article delves into the complex interplay of genetic and environmental factors contributing to PD's onset. It scrutinizes the neurodegenerative processes, emphasizing the significance of alpha-synuclein aggregation and dopaminergic neuron degeneration. The clinical section elucidates non-motor and motor signs, elucidating a intricate manifestations of tremors, slowness of movement, and cognitive impairment. Diagnosis and differential diagnosis sections outline the evolving criteria and techniques for accurate identification, including imaging and biomarker advancements. Current treatment approaches spotlight pharmacological and surgical interventions, with a concentrate on levodopa, profound brain stimulation, and emerging therapies. The article also assesses the psychosocial dimensions of PD, exploring its impact on daily life and caregiver burden. An overview of challenges and future directions underscores the need for targeted, innovative treatments, emphasizing precision medicine and global health implications. In conclusion, the review encapsulates key findings, urging a concerted effort for further research and enhanced therapeutic strategies to address the intricate complexities of Parkinson's disease*

**Keywords:** Neurodegenerative disorder, Etiology, Genetic factors, Precision medicine, Alpha-synuclein aggregation, Inflammation, Immune response, Pharmacological interventions

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