

Sleep Disturbances and Parkinson's Disease:

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Sleep is absolutely essential to good health, however majority of people with Parkinson's disease often find it difficult to get a good night's rest.

Sleep-related problems may occur early and even predate the diagnosis of Parkinson's disease but are generally more frequent and more severe in patients with advanced PD. These problems can seriously compromise a patient's quality of life and lead to impaired functioning in daily activities.

Community-based studies have reported upto 60% of patients with PD have sleep problems, compared with 33% of healthy controls of the same age and sex distribution.

Sleep Disturbances can present as **night-time sleep disruption** or **excessive day-time sleepiness**.

Difficulty falling asleep, staying asleep or unrefreshed sleep and excessive daytime sleepiness can result from various causes and must be evaluated in depth.

The first step in dealing with your sleep problem is to get help finding out what the root cause is.

Sleep disturbances may be grouped into the following categories;

Insomnia, Motor Related Sleep Disturbances, Excessive Daytime Sleepiness, Sleep Related Breathing disorders, Circadian Rhythm abnormalities and Neuropsychiatry Problems,

Insomnia:

Sleep-onset insomnia

- Between 40 and 90% of PD patients experience insomnia or difficulty falling and staying sleep. Most of these individuals do not feel refreshed after awakening from sleep.
- Insomnia in PD can be related to muscle cramps, leg painimmobility, frequent need to get up and urinate, anxiety, depression and side effects of medication.

Sleep Maintenance insomnia- fragmentation of sleep, disturbed sleep, difficulty falling back to sleep

An increased incidence of urinary difficulties, nocturia in this population may lead to fragmentation of sleep.

Your health care provider may utilize sleep dairies, sleep logs, actigraphy monitors to assist in further evaluation of the insomnia.

Combination of Cognitive Behavior Therapy including sleep hygiene, sleep chronotherapy and entrainment along with short course of pharmacological agents were deemed appropriate is the preferred line of management of insomnia.

Insomnia can be a frustrating condition to content with and is even more difficult to a patient suffering with a debilitating disease such as Parkinson's. Caregivers should not pass off insomnia lightly and should take every measure to ensure the Parkinson's patients comfort by taking complaints such as sleeplessness seriously.

Motor Causes of Sleep Disruption:

Akinesia (difficulty turning)

Medication related

When levodopa, or other dopamine-replacement medications, start to wear off at night, they lose their effectiveness before the next dose is due. This causes symptoms such as tremor, rigidity, pain and turning over in bed resulting in disturbed sleep and frequent awakingenings. Using a long acting Levodopa preparation at night or adding a night time dose of Levodopa are some of the strategies used to help such patients.

Other Parkinson's medications can also interfere with sleep. For example amantadine and selegiline can keep people awake at night (insomnia), particularly when taken in the evening. In some people with advanced Parkinson's, high doses of levodopa or dopamine agonists can also cause insomnia

Other medications and substances can interfere with sleep, too, such as caffeine, diuretics (tablets to promote urine production and flow) and ephedrine (a stimulant used to treat postural hypotension).

Early morning dystonia: these painful muscle spasms disturb sleep, particularly very late at night or in the early hours of the morning. Dystonia at this time is usually a sign of Parkinson's medication wearing off. It often affectsthe feet and hands and may cause the feet to turn inwards resulting in a painful cramp. Alteration of the Parkinson's disease medication may help relieve this symptom.

Restless legs Syndrome

Uncomfortable sensations in the lower legs that improve with movement

- Usually occur at night when you lie down, or sometimes during the day when you sit for long periods of time
- May be described as creeping, crawling, aching, pulling, searing, tingling, bubbling, or crawling
- May last for 1 hour or longer
- Sometimes also occur in the upper leg, feet, or arms

You will feel an irresistible urge to walk or move your legs, which almost always relieves the discomfort.

All of these symptoms often disturb sleep. Symptoms can make it difficult to sit during air or car travel, or through classes or meetings.

