Sleep Difficulties

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For most people, night is a time of rest and renewal; however, for many people with Parkinson's disease nighttime is a struggle to get the rest they need. For young people in particular, lack of sleep can create additional stress by affecting job performance, concentration, interest in social activities, or ability to fulfill parenting and other daytime family responsibilities. PD chat rooms on the Internet are busy during late night and early morning hours, attesting to the fact that sleep disturbances are prevalent in the PD population.

The amount of sleep an adult needs varies from person to person, but most people need between seven and nine hours of sleep a night. Normally, a healthy young person should fall asleep within 15 or 20 minutes. One or two awakenings may occur, and as long as one falls back to sleep in a few minutes, this is normal. One study found that people with PD averaged just over five hours of sleep and woke up twice as many times as did adults of similar age without PD. Difficulty falling asleep, staying asleep, or early awakening with difficulty falling back to sleep may be signs of sleep problems or sleep disorders. These problems can be related to any number of medical conditions, including PD, or to psychological problems including depression or anxiety.

The reasons for nighttime difficulties are multiple and complex and, until recently, were not well understood. Following are some of the most common sleep disorders that result in decreased sleep. Fortunately, many sleep disturbances can be treated successfully. Sometimes, treating the Parkinson's disease will result in improvement in sleep.

Insomnia

Many people have difficulty falling asleep or staying asleep, awaken early and are unable to fall back to sleep, or perceive their quality of sleep as poor. When one or more of these features is present, we call this insomnia. Insomnia is a common complaint of people with PD and can be caused by both the disease itself and certain PD medications. Insomnia can have a measurable effect on daytime functioning or general well-being and can contribute to daytime sleepiness, lack of attentiveness, and irritability. Some features of PD such as difficulty turning in bed, pain, early wearing off or ineffective response to PD

medications, involuntary movements, dystonia (severe muscle contraction) or urinary frequency may also disrupt sleep.

Treatment of insomnia begins with learning good sleep hygiene, but may also include cognitive behavioral therapy (done by specially trained professionals) and use of medications. Depression, which is common among Parkinson's patients, can also contribute to insomnia. An antidepressant or sedative may improve sleep. However, studies have shown that practicing good sleep hygiene habits and taking measures to promote relaxation before bedtime can often work better than sleeping pills.

Sleep Fragmentation

Sleep fragmentation or frequent awakening is probably the most common nighttime complaint in PD. This type of sleep disturbance may be associated with a greater susceptibility to medication-induced hallucinations as well as excessive daytime sleepiness. Sleep fragmentation is best treated by the use of the long-acting sedative clonazepam (Klonopin®) taken at bedtime. Clonazepam, rather than being immediately sedating, tends to help regulate sleep and allow for a more normal nighttime sleep pattern. Treating the excessive daytime sleepiness which often goes hand-in-hand with sleep disturbance is also an alternative. Changing medications (as many of them can cause sedation when taken during the day or disrupt sleep patterns when taken at night) or adding a stimulant medication can also be effective.

People with sleep disorders should be exposed to as much light (preferably real daylight) and physical/mental stimulation during the day as possible because these things can improve many sleep issues without medication. Light is an important synchronizer of the sleep-wake cycle, and many people with PD have reduced exposure to bright light. Physical and mental activity stimulates the alerting and wakefulness centers in the brain and increases blood and oxygen flow to the brain.

Excessive Daytime Sleepiness

Daytime sleepiness can occur for a variety of reasons and is not necessarily related to sleep disturbances, age, duration of the disease, treatment, or motor disability. Sometimes the medications used to treat PD can cause people to feel sleepy. Impaired driving due to sleepiness has been reported with the

use of certain medications, particularly some dopamine agonists. Patients may not be aware of sleepiness prior to a "sleep attack."

Sleep Apnea

Sleep apnea (or obstructive sleep apnea) is the most common sleep-related breathing disorder. An apnea is a pause in respiration due to obstruction in the upper airway or decrease in respiratory effort. Features of sleep apnea may include loud snoring, choking, or gasping or gurgling sounds and may result in morning headaches from fatigue. If left untreated, this condition can affect blood pressure and may raise the risk for stroke or heart disease. Sleep apnea can be treated by weight loss, avoiding certain positions in bed (particularly sleeping on the back), avoiding alcohol, and treating allergies, nasal congestion, and esophageal reflux. The most common treatment is the nightly use of continuous positive airway pressure (CPAP). A CPAP device (which fits over the mouth and/or nose while sleeping) provides a continuous flow of air through the upper airways, preventing obstruction and improving oxygenation during sleep. Polysomnography (a sleep study) is used to confirm the diagnosis of sleep apnea. Some people benefit by using an oral appliance made by a dentist and worn at night. Sometimes surgery on the nasal passages or throat can be of benefit.

REM Behavioral Disorder

REM (rapid eye movement) sleep is a normal stage of deep sleep where the bodily muscles, with the exception of eye movements and breathing, are paralyzed (muscle atonia). There can be brief twitching, but most movement cannot occur during this stage of sleep. Loss of REM "paralysis" can occur in PD resulting in movements during REM sleep. REM behavioral disorder (RBD), often described by patients and family members as "thrashing about" in sleep or "acting out" of dreams, is a result of impaired sleep paralysis. It is more frequently encountered in males with PD than females. Patients often describe vivid dreams that can range from friendly and pleasant to quite menacing and frightening. To avoid possible injury, it may be advisable for the bed partner to sleep in a separate bed during this type of sleep disorder until adequate control has been attained in the person with PD. Fortunately, REM behavior disorder responds to medications in the majority of patients. Individuals with newly diagnosed PD who have RBD symptoms often report resolution of this sleep disturbance when they begin treating their PD with dopaminergic medications.

Restless Legs Syndrome

Restless legs syndrome (RLS) is a relatively common disorder in PD. It can be associated with disrupted sleep and daytime sleepiness.

RLS has four features:

- There is a desire to move the limbs, usually associated with discomfort.
- The symptoms begin or worsen during inactivity or rest (lying, sitting).
- Symptoms are partially or totally relieved by movement (walking or stretching).
- Symptoms are worse in the evening or at night.

Certain medications such as antidepressants and antihistamines may worsen RLS. Adjusting or adding certain types of PD medications can improve the condition.

Nighttime Urinary Frequency

Nighttime urinary frequency is common in PD patients and can be the result of a dysfunction of the autonomic nervous system. It is characterized not only by increased urinary frequency but also an increased sense of urgency, particularly at night. In new cases, other treatable and potentially serious causes, such as infections or prostate difficulties (in men), should be ruled out first. Several medications are available to address simple nighttime urinary frequency. If the problem persists, a formal urologic evaluation may be necessary.

Diagnosing and Treating Sleep Disorders

Sleep disorders are best diagnosed in one of the many sleep disorders centers found throughout the country. The best centers are accredited by the American Academy of Sleep Medicine (AASM) and have staff with specialized training in the diagnosis and treatment of sleep disorders. In addition to evaluating patients, these centers perform specialized diagnostic sleep tests during overnight sleep studies. The nocturnal polysomnogram (PSG), or overnight sleep study, is the most widely used tool for diagnosing sleep disorders.

Once the diagnosis is determined, a treatment plan is recommended, usually by a sleep specialist in consultation with the neurologist. Behavioral techniques such as optimizing sleep habits (sleep hygiene), adjusting medications (both to optimize sleep and minimize daytime sleepiness), and treating underlying sleep disorders are usually recommended.

While the causes of nighttime difficulties in PD are varied and often complex, it is important to know that potential solutions do exist. Below are some general tips for getting a good night's sleep.

Sleep Hygiene Tips

Sleep hygiene refers to the behaviors and habits we can control that affect our body's day-night cycling and our readiness to go to sleep or to be alert at a given time of day.

- Try to maintain consistent sleep and rising times with a goal of spending at least 7 but not much more than 8 hours in bed each night.
- Preserve the bedroom for sleep and avoid activities right before bedtime that may stimulate wakefulness.
- Don't exercise within 4 hours of going to sleep.
- Allow about 4 hours after a large meal before going to bed.
- Avoid caffeine for 6 to 8 hours before retiring.
- If alcohol is consumed, use only moderate amounts.
- Limit fluids at least 4 hours prior to bedtime
- Do not take over-the-counter or prescription sleeping medicines without consulting your doctor. Some may cause a worsening of sleep problems.
- Consult your physician regarding timing of evening PD medications and use of time-released medications or appropriate long-acting administrations.
- If unable to fall asleep within 30 minutes, get out of bed and sit quietly, listen to soft music, read or engage in other relaxing activity until feeling sleepy; then go back to bed.
- Remedies such as a warm glass of milk, a massage, and an expression of affection may be helpful. A hot shower or bath can also promote relaxation.
- Consider seeing a counselor or therapist to discuss issues that may be causing stress or anxiety.