

SLEEP DIFFICULTIES AND PARKINSON'S DISEASE

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Problems with sleep are common in Parkinson's disease. They can sometimes interfere with quality of life. It is helpful to have a better understanding of what these problems are and how they might be relieved.

SLEEP AND NORMAL AGING

The sleep-wake cycle is controlled by internal "clocks" in our brains. These "clocks" can be altered by internal and external factors; normal aging, time zone shifts, light-dark cycles, and certain medications.

As people age, the amount of time they sleep and the pattern of sleep changes. Older people tend to go to bed earlier and wake up earlier than when they were younger. Sleep requirement is reduced resulting in an average of 6.5 hours per night. Older people tend to wake up more frequently during the night and have greater trouble getting back to sleep. There is also a tendency to sleep more during the day.

SLEEP AND PARKINSON'S DISEASE

The most common sleep complaints are awakening frequently at night with difficulty returning to sleep (i.e. sleep fragmentation) and daytime sleepiness. Other complaints are vivid dreams, nightmares, leg jerks, nighttime vocalizations, and restless legs.

Some known causes of sleep disturbances in Parkinson's disease are: stiffness and problems turning over at night, awakening because of frequent urination, restless legs, nightmares, depression, and some drug therapies. In many people it is a combination of factors; for others the cause is unclear.

- **Nighttime urination:** Drugs such as ditropan and probanthine that relax the bladder muscle, can be given at bedtime, and decrease the need to urinate during the night. There are potential side effects and medical conditions in which they should not be used, so talk to your health care provider.

- **Nighttime stiffness:** This can sometimes be helped by using a Sinemet CR or a dopamine agonist at bedtime. The benefit varies from person to person. In some people nighttime doses of levodopa/carbidopa can cause nightmares. (See below)
- **Nightmares and nighttime vocalizations:** These are often caused by antiparkinson drugs such as amantadine, pergolide, bromocriptine, and levodopa/carbidopa. Avoiding these drugs in the evening or night can abolish or reduce these problems. However, this decision must be balanced against the need to minimize Parkinson's symptoms that interfere with sleep.
- **Restless legs or leg cramps:** Pergolide, bromocriptine, clonazepam, and codeine-like drugs can often be helpful. If confusion is already a problem, it can be worsened by the use of these drugs.
- **Depression:** Depression is commonly associated with awakening at night and being unable to go back to sleep. Many antidepressants have a sedative side effect as well as antidepressant effect. Given at bedtime, antidepressants can be used to promote sleep.
- **“No apparent reason, I just wake up and can't get back to sleep”:** If none of the above reasons seem to be contributing to the problem and sleep disturbance persists, the following sleeping agents could be tried.
- **Melatonin** (2-12 mg at bedtime) is a hormone that is secreted in the normal brain when it gets dark. It peaks in the middle of the night, and trails off at dusk. It plays a role in regulating sleep. Melatonin has been shown to decrease in normal aging. It promotes sleep in about 50% of normal aging people, has no significant short-term side effects, and can be purchased over the counter. Start by using 2 mg and work up gradually to 12 mg. If sleep is improved at a certain dose, stop at that level.
- **Benadryl** (25-50 mg) is an antihistamine which causes drowsiness. It has relatively few side effects and is available as an over-the-counter sleeping agent.
- **Other sleeping pills:** There are many prescription sleeping pills. All have side effects. The use of any sleeping pill

should be carefully considered in relationship to a person's total medical picture. Research indicates that sleeping pills lose their effectiveness very quickly. Sleeping pills should be used **ONLY** intermittently.

Over-the-counter sleeping agents can also have side effects. One example is Sominex, known to cause confusion in people with Parkinson's disease. All sleeping agents should be discussed with your health care provider before use.

THINGS YOU CAN DO TO PROMOTE BETTER SLEEP

- Don't sleep too much. Too much time in bed promotes sleep fragmentation.
- Have a regular bedtime and wake-up time; do this **every** day. A regular routine strengthens the sleep-wake cycle.
- Ask your health care provider if any of your medications could be causing your sleep problems. One example is selegiline (Eldepryl). In some people, taking this drug too close to bedtime can make it difficult to fall asleep. Taking the drug earlier in the day or reducing the dose can improve sleep.
- Decrease fluid intake 3 to 4 hours before bedtime. This minimizes the need to go to the bathroom at night. Be sure to empty your bladder before retiring.
- Avoid caffeine and alcohol in the evening. Both can disturb sleep. Alcohol can put you to sleep, but will cause the rest of the night's sleep to be fragmented.
- Make your sleep environment as restful as possible. A quiet room, minimal light, comfortable temperatures, and soothing music promote sleep. A warm bath prior to bed can help you relax.
- Regular exercise can improve sleep. Exercising immediately before bedtime is stimulating- so exercise should be done earlier in the day.
- If you lie awake for more than 30 minutes, get up and do something relaxing.

FATIGUE AND PARKINSON'S DISEASE

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For people with Parkinson's disease, fatigue can seem as much a state of mind as of the body. We do not know everything about this common symptom, but we do know that fatigue can have both mental and physical causes.

At times, people with all kinds of health conditions feel fatigue. It happens when a muscle or a group of muscles has been used too much during an activity or exercise. Often the stress of everyday living, doing too much in too little time, causes fatigue.

In Parkinson's disease, the feeling of fatigue is hard to describe and even harder to measure. Many symptoms of PD can cause a feeling of weariness and can make it difficult to finish an activity. Fatigue can mean slow movement, muscle stiffness, depression or even changes in being able to move or sleep. It can be experienced throughout the day or only when medications are wearing off.

FATIGUE DUE TO AKINESIA

Akinesia, or trouble starting a movement, often feels like fatigue. A person with this symptom must move slowly and will find it hard to finish a task in a regular amount of time. Everyday tasks such as getting dressed can take a lot of effort. People with Parkinson's disease can keep track of the times during the day when their akinesia is better and their medications are working well. Energy consuming daily tasks can then be done at these times, when movement is easier.

MUSCLE FATIGUE

Parkinson's symptoms like muscle stiffness, cramping, tremor (shaking) and difficulty initiating a movement put stress on a person's muscles. To move with these symptoms, muscles have to work very hard and often against each other. With tremor, the constant shaking can quickly fatigue muscles. Antiparkinson medications can be used to treat these symptoms but they must be carefully monitored to avoid a common side effect called dyskinesia (fidgety involuntary movements), because this side effect will also cause fatigue.

Muscles that do not move enough become deconditioned and

reduced in size (atrophied). Loss of muscle strength decreases stamina and endurance and for many people, this decrease feels like fatigue. The only treatment is a regular exercise program. People who have included exercise as a part of their daily routine have less fatigue.

FLUCTUATIONS IN MOBILITY

Many people with Parkinson's disease have fluctuations in their mobility throughout the day. Typically these fluctuations follow the dosing cycle, with an increase in symptoms at the end of a dose. It is also common to have the best relief from symptoms in the morning, when people feel well rested. Often, people try to get everything done in the morning when they feel well, but over activity can lead to fatigue.

FATIGUE DUE TO DEPRESSION

Depression is common in people with Parkinson's disease, occurring in about 40% of the patients. Fatigue is a typical symptom of depression and is often reported as a lack of motivation or a loss of energy. Antidepressants are used to treat this problem. When successful, people begin to feel less tired and are more willing to participate fully in a day's activities.

FATIGUE DUE TO SLEEP DISTURBANCE

Parkinson's disease is often associated with sleep disturbance. Causes vary but may be due to sleep cycle changes, inability to get comfortable, or side effects of medications. Sleep disruption contributes to daytime sleepiness and people often have a strong desire to nap throughout the day. A short nap after lunch is healthy and refreshing, but frequent naps throughout the day will only make sleeping at night more difficult. Sleep problems should be evaluated because it is well-known that a poorly rested person will perform poorly during the day. It is also important to note that some medications used to treat sleep disturbance may cause daytime fatigue.

MANAGEMENT OF FATIGUE

It is clear that fatigue is a problem for many people with Parkinson's disease. To get help, a complete health history and physical exam is first necessary to rule out non-Parkinson causes. Sometimes problems not associated with PD, such as anemia, are found. When giving their history, people should note when they feel fatigued, how long the feeling lasts, how fatigue fluctuates with their symptoms and medications, and how badly they feel when it happens.

The answers will help identify the reason for the problem and if necessary, Parkinson's medications can be adjusted.

Here are some steps people with Parkinson's disease can take on their own to avoid fatigue:

1. Eat well; getting the right food is necessary for feeling strong.
2. Participate in an exercise program with both aerobic and stretching exercises.
3. Practice good sleep habits; establish a regular bedtime, avoid frequent napping or stimulation at bedtime, and decrease caffeine and alcohol intake.
4. Keep mentally active. Boredom often leads to fatigue.
5. Eat a lot of fiber and drink plenty of fluids to avoid constipation.
6. Do more difficult daily tasks when movement is easier and medications are working well.
7. Know your limitations and seek assistance when necessary. Forcing too many activities into one time period will cause fatigue.