

SLEEP AND PARKINSON'S DISEASE

Everything Parkinson's Webinar

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We will talk about:

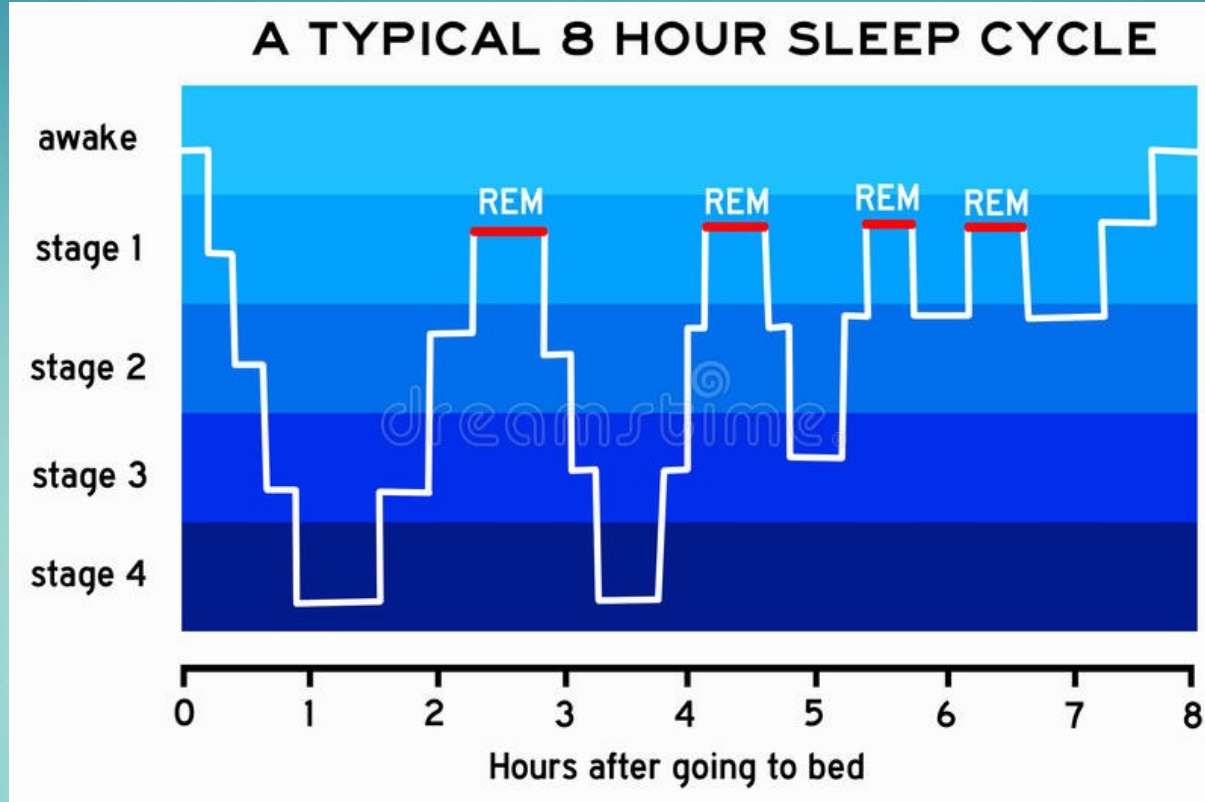
- Stages of sleep
- What is the relationship between sleep and Parkinson's?
- What are the sleep problems for people with Parkinson's disease?
 - How are they diagnosed?
 - What are the treatment options?



Sleep and Parkinson's:

- Connected in complex ways we do not yet completely understand.
- Improves health and wellbeing
- Reduces stress
- Improves memory and mood
- Replenishes levels of neurotransmitters such as dopamine
- Clears out toxic build up in the brain
- Some studies suggest that changes in sleep may be one of the early signs of Parkinson's.
- 2 out of 3 people with PD may have sleeping issues. This could be due to chemical changes in the brain, medications, depression or anxiety, and other PD symptoms.

Sleep Cycle:



Rapid eye movement (REM) Sleep Behavior Disorder (RBD)

- A sleep disorder in which the patient physically acts out vivid, often unpleasant dreams with vocal sounds and sudden, often violent arm and leg movements during **REM sleep** — sometimes called dream-enactment **behavior**.
- The body is normally limp during REM sleep other than eye movements.
- The dreamer is acting in self defense or defense of others.
- This can occur years before PD is diagnosed.
- Does not typically disrupt the patient's sleep.
- Can be dangerous to spouse or bed partner.

RBD Signs and Symptoms

- Kicking, punching, flailing in response to a violent dream.
- Noises, such as talking, shouting, emotional outcries or even cursing
- Often remember the dream.
- Usually does not get out of bed.

RBD Diagnosis

- Evaluation by movement disorders specialist, neurologist or sleep specialist
- Talking with bed partner
- Performing a sleep study to distinguish from other sleep issues



RBD Treatments

- Physical Safeguards:

- Padding the floor near the bed
- Removing dangerous objects from the bedroom, such as sharp items and weapons
- Placing barriers on the side of the bed
- Moving furniture and clutter away from the bed
- Protecting bedroom windows
- Possibly sleeping in a separate bed or room from your bed partner until symptoms are controlled
- Sleeping on sleeping bags

RBD Treatment

- **Melatonin**

- Natural sleep hormone
- Causes mild drowsiness.
- It is usually well-tolerated with few side effects.

RBD Treatment

- **Clonazepam (Klonopin).**
- This is a prescription medication, often used to treat seizures and more commonly used for anxiety.
- the traditional choice for treating REM sleep behavior disorder, by slowing down the processes of the brain which helps suppress the acting out behavior from occurring.
- Can cause daytime sleepiness, decreased balance and worsening of sleep apnea.

Restless Leg Syndrome (RLS)

- A condition that causes an unpleasant or uncomfortable sensation in the legs resulting in an irresistible urge to move them
- Typically occurs in the evening or at bedtime
- Usually worse when patient are lying or sitting
- Eased by movement such as walking, pacing, or jiggling legs.
- More common in PD patients

RLS Triggers

- Alcohol
- Nicotine
- Caffeine
- Certain medications for mental health and colds and allergies.

RLS Diagnosis

- Evaluation by a movement disorders specialist, neurologist or sleep specialist.
- Check for iron deficiencies
- Sleep study



RLS Treatment

- Treat underlying conditions such as iron deficiency.
- Treat only if it is bothersome.
- Consider stopping medications that make condition worse such as anti-depressants or anti-histamines.
- Avoid nicotine, alcohol, sugar intake, and caffeine, especially in evenings.



RLS Treatment

- Medications:

- Medications that increase dopamine in the brain such as ropinirole (Requip), rotigotine (Neupro), or pramipexole (Mirapex); watch for side effects such as sleep attacks and compulsive behaviors, augmentation.
- Gabapentin (Neurontin, Horizant)
- Pregabalin (Lyrica)

RLS Treatment

- Opioids (Tramadol, Codeine, Oxycodone, Hydrocodone)
 - Caution as these can cause disorientation and constipation.
- Muscle relaxants and sleep medications



Insomnia

- A sleep disorder where one has a problem with either falling asleep or staying asleep.
- Sleep onset insomnia is the inability to fall asleep within 30 minutes at bedtime.
- Sleep fragmentation is repeated short sleep interruptions.



Insomnia Causes

- Difficulty changing positions in bed
- Rigidity or wearing off of meds at night
- Anxiety and depression
- Nocturia (frequent urination at night)
- Naps during the day
- Restless legs syndrome
- Sleep apnea
- Possible disruption of body clock
- Pain



Sleep Hygiene

- Establish a bedtime routine.
- Consistent sleep schedule.
- Plan for at least 7 hours of sleep.
- Avoid naps longer than 20 minutes during the day and avoid napping later in the day.
- If you do not fall asleep after 20 minutes, get out of bed.
- Avoid eating 3 hours before bedtime.

Sleep hygiene, continued

- Avoid caffeine 8 hours prior to sleep.
- Avoid consuming alcohol before bedtime.
- Avoid fluids close to bedtime.
- Complete any aerobic exercises at least 3 hours before bedtime.
- Make your bedroom a quiet and relaxing sanctuary.
- Obtain a few minutes of daylight outdoors as soon as you wake up, or spend at least 30 minutes outside throughout the day.
- Limit light exposure in the evenings.

Sleep hygiene, continued

- Cognitive-behavioral therapy for insomnia
- Books on sleep:
 - *Say Goodnight to Insomnia* by Gregg Jacobs
 - *The Insomnia Workbook: A Comprehensive Guide to Getting the Sleep You Need* by Stephanie Silberman
- Sleep stories on apps such as Calm, Headspace and Insight Timer.
- Management of urinary symptoms

Insomnia treatment

- Long-acting Levodopa
- Rotigotine 24-hour patch (Neupro)
- Deep brain stimulation
- Melatonin
- Management of anxiety and depression
- Occasionally use of other options such as orexin antagonists or melatonin receptor agonists



Obstructive Sleep Apnea

- Not necessarily common in PD, however it is common in the general population.
- It is a potentially serious sleeping disorder that causes breathing to repeatedly stop and start during sleep.
- It occurs when the muscles in the throat intermittently relax and block the airway.
- The most common sign of OSA is snoring.

OSA

- Obstructive sleep apnea

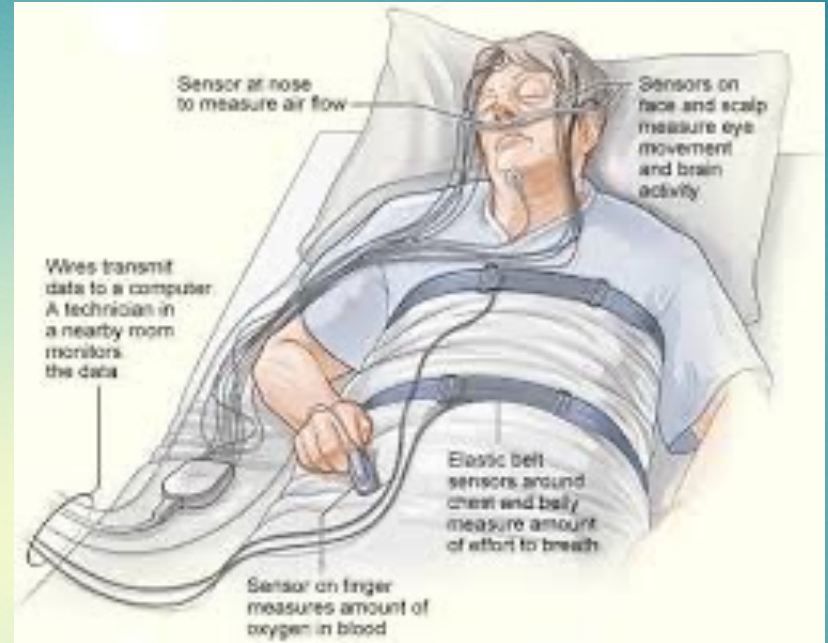


OSA

- Blockage of air during sleep can cause oxygen saturation in the blood to drop.
- Leads to frequent short awakenings through the night.
- Effects can be similar to sleep deprivation or lack of sleep
- Can have daytime sleepiness.
- Snoring is not normal.

Sleep Study

- Polysomnography



OSA Treatment

- Weight loss
- Avoid alcohol or sedatives
- Continuous Positive Airway Pressure (CPAP) device
- Mandibular advancement device (MAD)
- Positioning device if OSA is mainly supine
- Inspire



Excessive Daytime Sleepiness

- Daytime sleepiness related to PD may arise for many reasons, including getting a poor night's sleep or the use of dopaminergic medications, especially dopamine agonists like pramipexole (Mirapex), ropinirole (Requip) and rotigotine (Neupro).
- OSA
- Consider mental health issues such as depression.
- Can occur naturally in advanced stages of PD

EDS Treatments & Recommendations

- Establish good sleep hygiene and utilize the sleep recommendations.
- Participate in activities outside the home. They may help provide stimulation to prevent daytime dozing
- Do NOT drive while sleepy if you experience excessive daytime sleepiness. Motor vehicle accidents increase during periods of drowsiness and may be associated with sudden onset of sleep (sleep attacks).
- Talk to your doctor about possibly decreasing the dosage of dopamine agonists if you experience daytime sleepiness or sleep attacks.
- Talk to your doctor about stimulants like caffeine, modafinil (Provigil) and methylphenidate (Ritalin).

In Summary

- Sleep is very important and can directly impact the quality of our life.
- Most sleep conditions can be treated.
- Watch for the common sleep conditions in Parkinson's disease such as REM sleep behavior disorder, Restless leg syndrome, Insomnia, Obstructive sleep apnea and daytime sleepiness.
- Talk to your provider if you experience these conditions.

Are you asleep??!

- Thank you for your attention. May you establish and experience good sleep and have a restful day.

