

# Parkinson's Disease: New Diagnosis Workshop Session II February 15th, 2022

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**CENTER OF EXCELLENCE**

## Outline For Today

Management of Parkinson's Disease

Medications

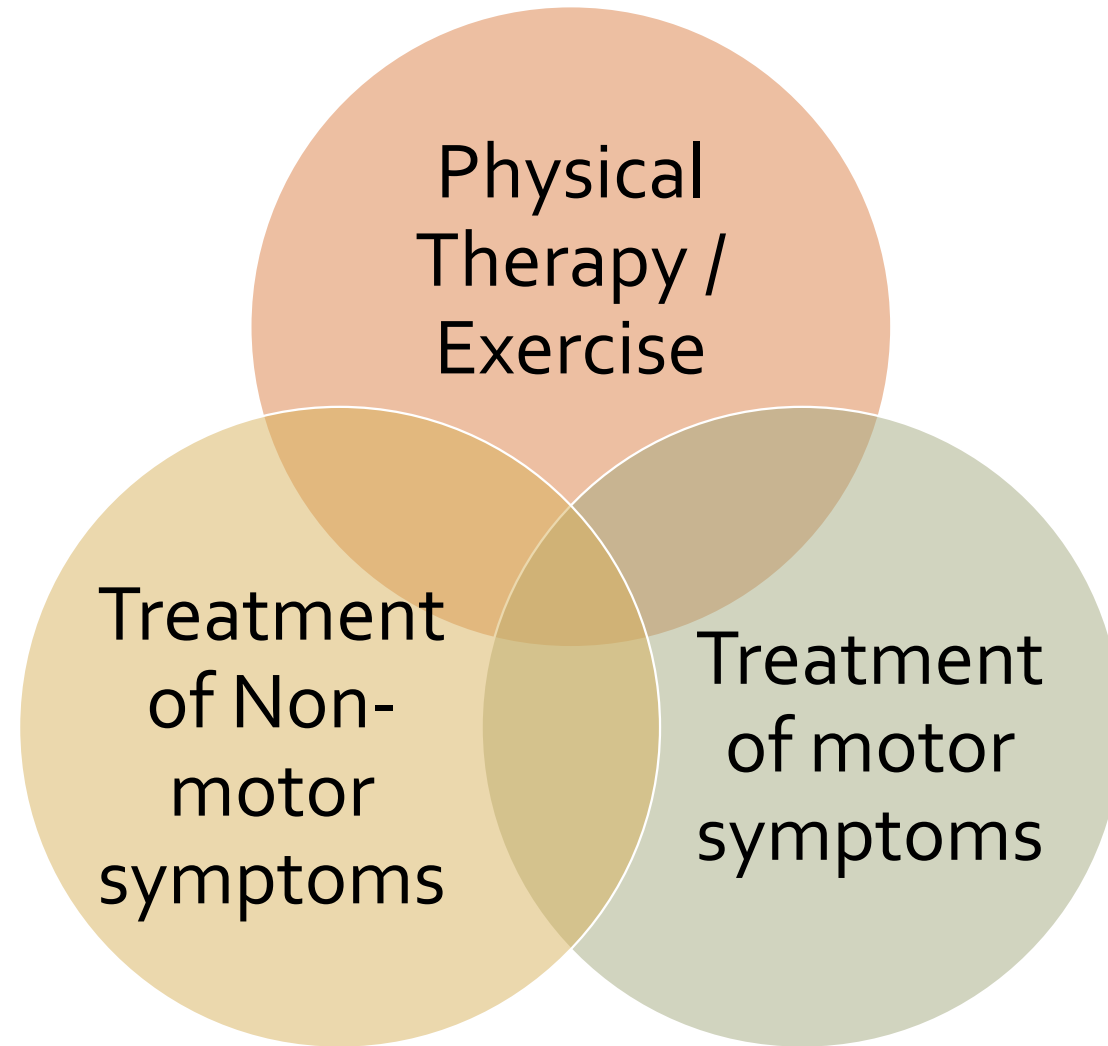
Alternative therapies

Advanced therapies

Treatment of Non-Motor Symptoms

Questions

# Management



# Exercise & Wellness

- Helps slow the progression of disease
- Can help with non-motor symptoms, fatigue, anxiety, depression, sleep
- 30 minutes of moderate activity 5 days per week
- Find something you enjoy!
- Benefits of boxing, tai chi, yoga, dance
- More information on this next week!





# Management of Parkinson's Disease

- Individualized approach
- Based on severity of symptoms
- When the symptoms start affecting your daily activities and quality of life



FAQ:  
*When should I start  
medication?*

# Medication Management

Levodopa

Dopamine  
Agonists

Monoamine  
oxidase inhibitors  
(MAO-I)

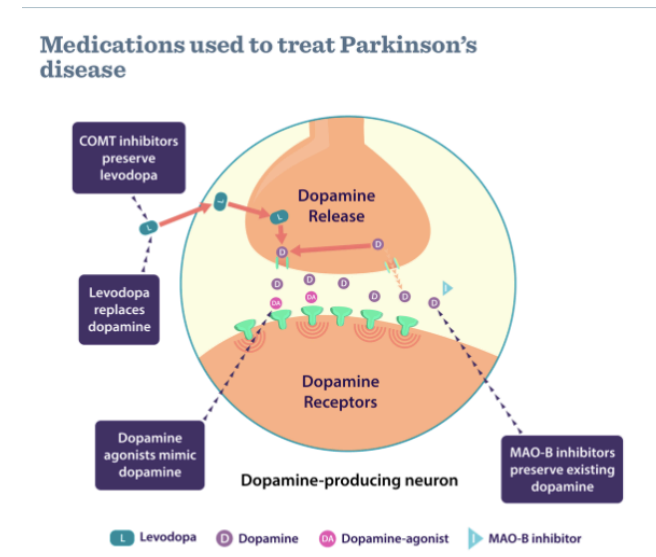
Amantadine

COMT inhibitors

Alternative  
therapies

# Levodopa/ Carbidopa

- Gold standard therapy for Parkinson's Disease
- Major breakthrough in treatment in 1960's
- Most effective medication available
- Everyone will eventually require levodopa



# Levodopa/ Carbidopa

- Tends to be very well tolerated overall
- Introduced slowly to minimize the side effects
- GI upset (nausea), low blood pressure, headache
- Take with a snack/meal to minimize nausea

*FAQ: How is it  
given and what are  
the side effects?*



## Levodopa/ Carbidopa

- Absorbed in the small intestine
- Can take with a light carbohydrate snack to minimize nausea
- Not everyone is sensitive to protein!

*FAQ: I've heard I should take it away from food (protein) is that true?*

# Levodopa/ Carbidopa

- **Motor symptoms** (tremor, bradykinesia, rigidity)
- **Non-motor symptoms** (drooling, dysphagia, pain, sweating, episodic anxiety, fatigue)
- Symptoms that improve are called Levodopa/Responsive

*FAQ: What does  
Levodopa help  
with?*

## Levodopa/ Carbidopa

- Talk with your Movement disorder specialist
- May require a higher dose
- Bowels? Food? Interference?

*FAQ: What if it feels  
like the medication  
isn't working?*

# Terminology To Know

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**ON** – Medications are working, symptoms improve

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**OFF** -When medications stop working (Parkinson's symptoms are present)

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**Kicking in** – Many people will feel that the medication starts working after 15-60 minutes

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**Wearing off** – When medication starts to wane

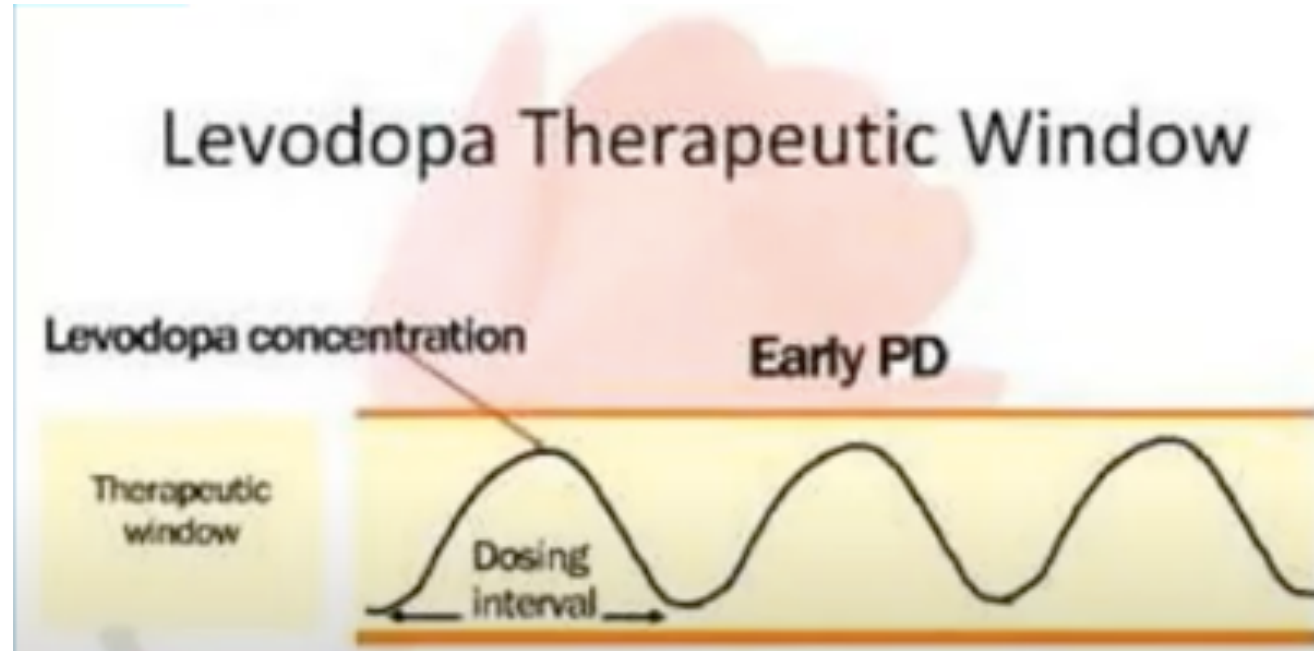
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**Dyskinesia** – “rocking/writhing” movements





# Therapeutic Window



*FAQ: If I don't feel the medication kick in or wear off, does that mean it isn't working?*

# Levodopa & Dyskinesia

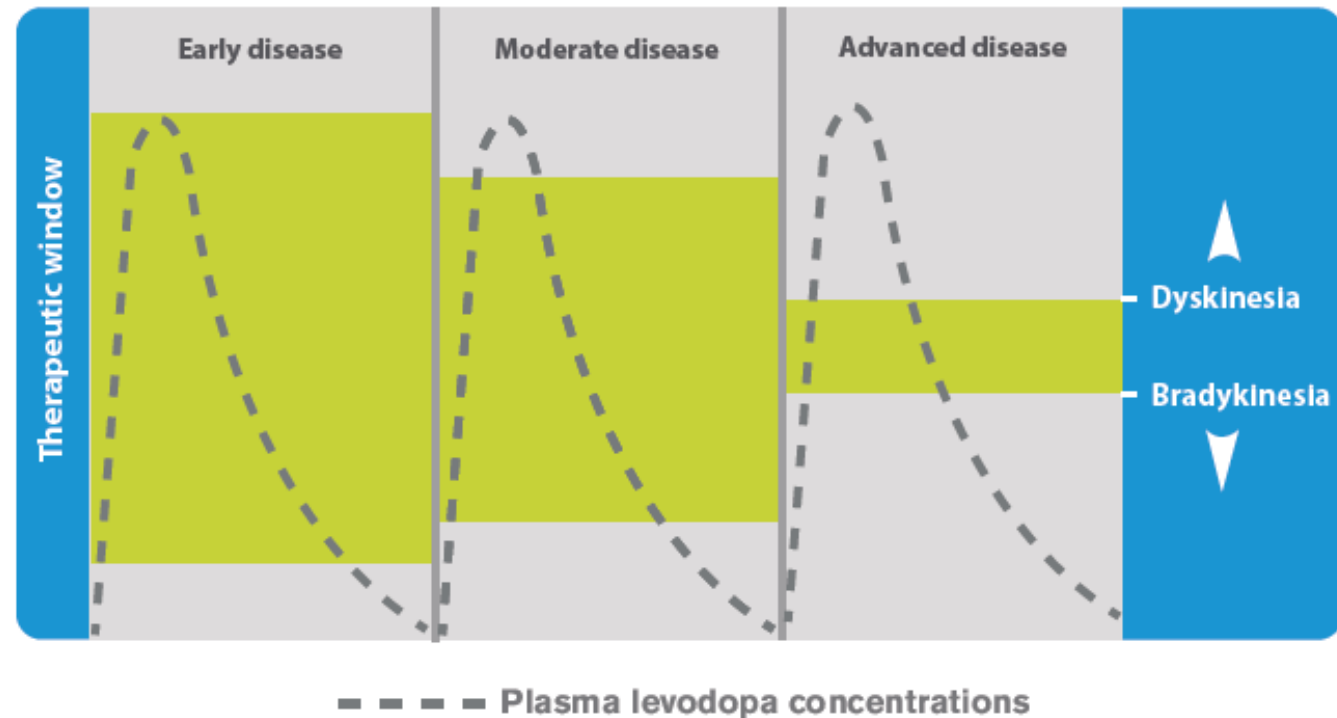
**Dyskinesia** – Unintentional involuntary movements

- Rocking/writhing movements/ “dancing”
- Not everyone will experience dyskinesia
- Correlate best with longer disease duration and higher individual doses of levodopa
- Not a reason to delay starting Levodopa
- Are not always overly bothersome!

# Levodopa & Dyskinesia

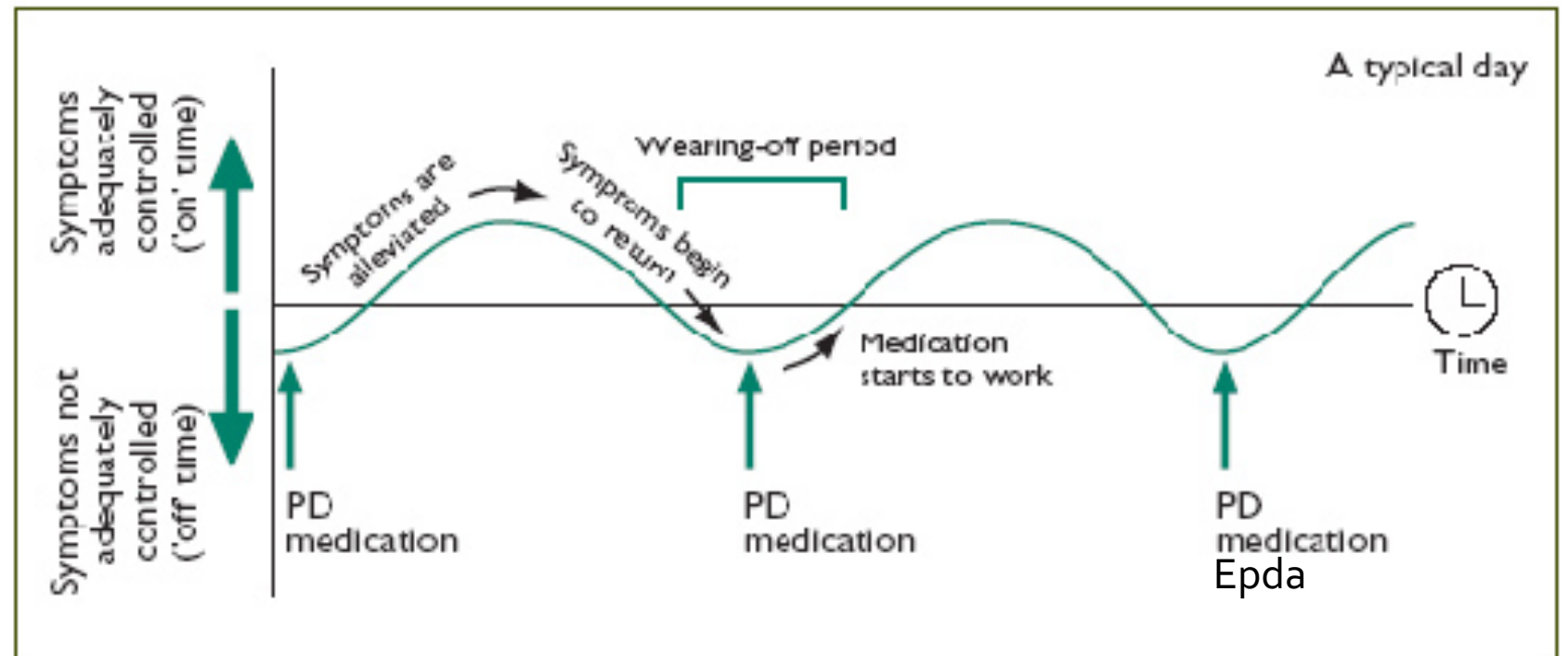
The therapeutic window of levodopa becomes increasingly narrow<sup>4</sup>

More frequent doses of oral levodopa are required to reduce bradykinesia, but increased administration can increase dyskinesia



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# Wearing Off



## Other Medications: Monoamine Oxidase Type B (MAO-B)

- Examples: ***Selegeline, Rasagaline***
- Work by blocking the enzyme that breaks down dopamine
- Used in early disease as monotherapy or in addition to Levodopa to improve ON time
- Well tolerated; minimal side effects
- Can cause insomnia if taken later in the day



# Dopamine Agonist

- Examples: *Pramiprexole, Ropinerole, Rotigotine (patch)*
- Mimics dopamine in the brain
- Side effect profile is higher than that of Levodopa
  - **Impulse Control Disorder**
    - Impulsive shopping, gambling, hypersexuality
    - Associated with changes in posture (camptocormia / pisa syndrome)
  - Sleep attacks (rare)

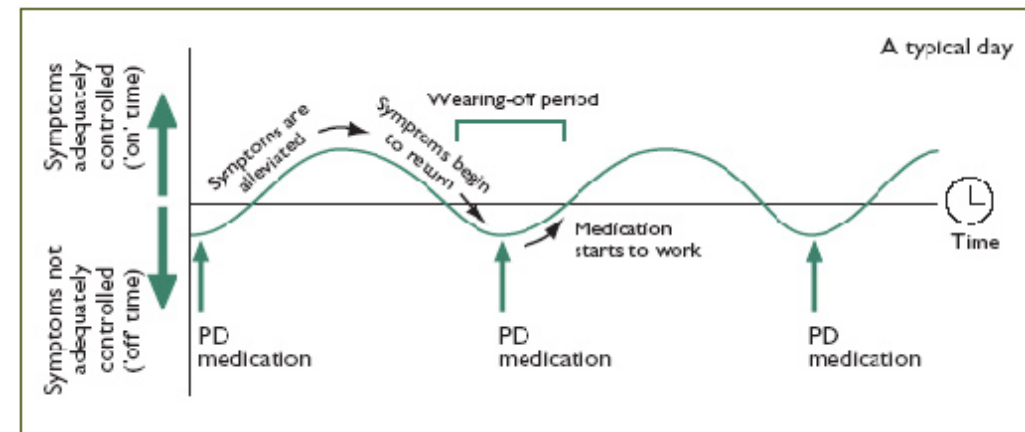


# Amantadine

- Blocks glutamate NMDA receptors
- Can be used early on for very mild symptoms
- Commonly used to treat dyskinesia
- Well tolerated
- ***Side effects:*** Livido reticularis (cosmetic), can contribute to hallucinations and cognitive concerns in older adults

# COMT Inhibitors

- Example: ***Entacapone (Comtan)***
- Taken with each dose of Levodopa
- Helps prolong the dose of levodopa by slowing the breakdown of dopamine
- ***Side effects:*** Orange coloured urine, nausea, loose stool





# Alternative Therapies : Mucuna

- Mucuna Pruens (velvet bean)
- Contains levodopa
- Exact amount in each capsule varies!
- Is a supplement and has not been approved by Health Canada/FDA



# Supplements & Diet

- Little scientific evidence to support the use of CoQ10, Vitamin E, Thiamine, Intranasal Glutathione
- May be some benefit for vitamin B12
- Not one particular diet in PD



*"With this all-in-one vitamin you won't need any other vitamin."*

# Cannabis

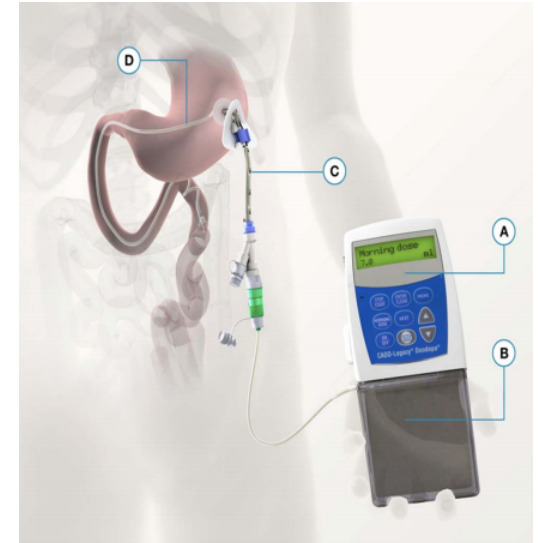
- **Current understanding:** There is insufficient evidence to recommend the safe use of cannabis for motor symptoms in PD.
  - Well designed RCT are needed to better establish evidence
  - Some anecdotal reports that Cannabis can help with non-motor symptoms: sleep, pain, anxiety, weight loss.
- **Know the risks if you try it!**
  - Potency has increased dramatically in the last 30 years
  - Slowness of thinking, balance issues, paranoid thoughts can potentially be exacerbated by cannabis (especially with high THC)
  - Ensure safe use in a safe environment



# Advanced Therapies

## Duodopa (LCIG):

- Requires surgery to place a PEG tube into the jejunum (small intestine)
- Must meet criteria: Spend >25% in OFF state
- Motor fluctuations
- Received adequate trial of Levodopa and adequate trials of adjunctive medications



## Deep Brain Stimulation

- Reduce tremor and smooths out motor fluctuations by electrically stimulating specific areas of the brain (subthalamic nucleus, globus pallidus or thalamus)
- Symptoms that respond well are symptoms that are levodopa responsive (DBS does not fix all problems)



# Management of non-motor symptoms

## Autonomic System

- Constipation
- Urinary issues / Nocturia
- Orthostatic hypotension

## Mood

- Anxiety
- Depression

## Sleep

- Insomnia
- Rem Sleep Behaviour Disorder

# Treating Constipation

## Step 1

Increase fiber rich foods - aim for 30grams /day

Eat fiber rich foods (whole grains, oatmeal, flax, hemp hearts, bran, psyllium husk, fruit, bulk vegetables)

Natural laxatives - fruit containing sorbitol (prunes, pear, apple)

## Step 2

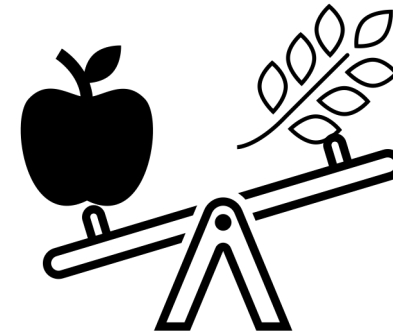
Increase fluids

Increase activity / Less sitting

## Step 3

OTC laxatives

Polyethelyne Glycol (PEG) (Restoralax/ Lax-a-Day)



# Managing Bladder Issues / Nocturia

- Lifestyle modifications
  - Less water in the evening
  - Limit caffeine and alcohol in afternoon/evening
- Pelvic floor physiotherapy
  - Exercises & bladder training
- See a Urologist
- Prescription medications
  - Mirabegron

# Managing Orthostatic Hypotension

- Non-pharmacological management first!
  - Change positions slowly (sit at the edge of the bed)
  - Increase sodium/fluids in diet
  - Check blood pressure regularly
  - Compression socks / Abdominal binder
  - Prevent Valsava Maneuvers (straining)
- *Medications: Fludrocortisone, Midodrine*



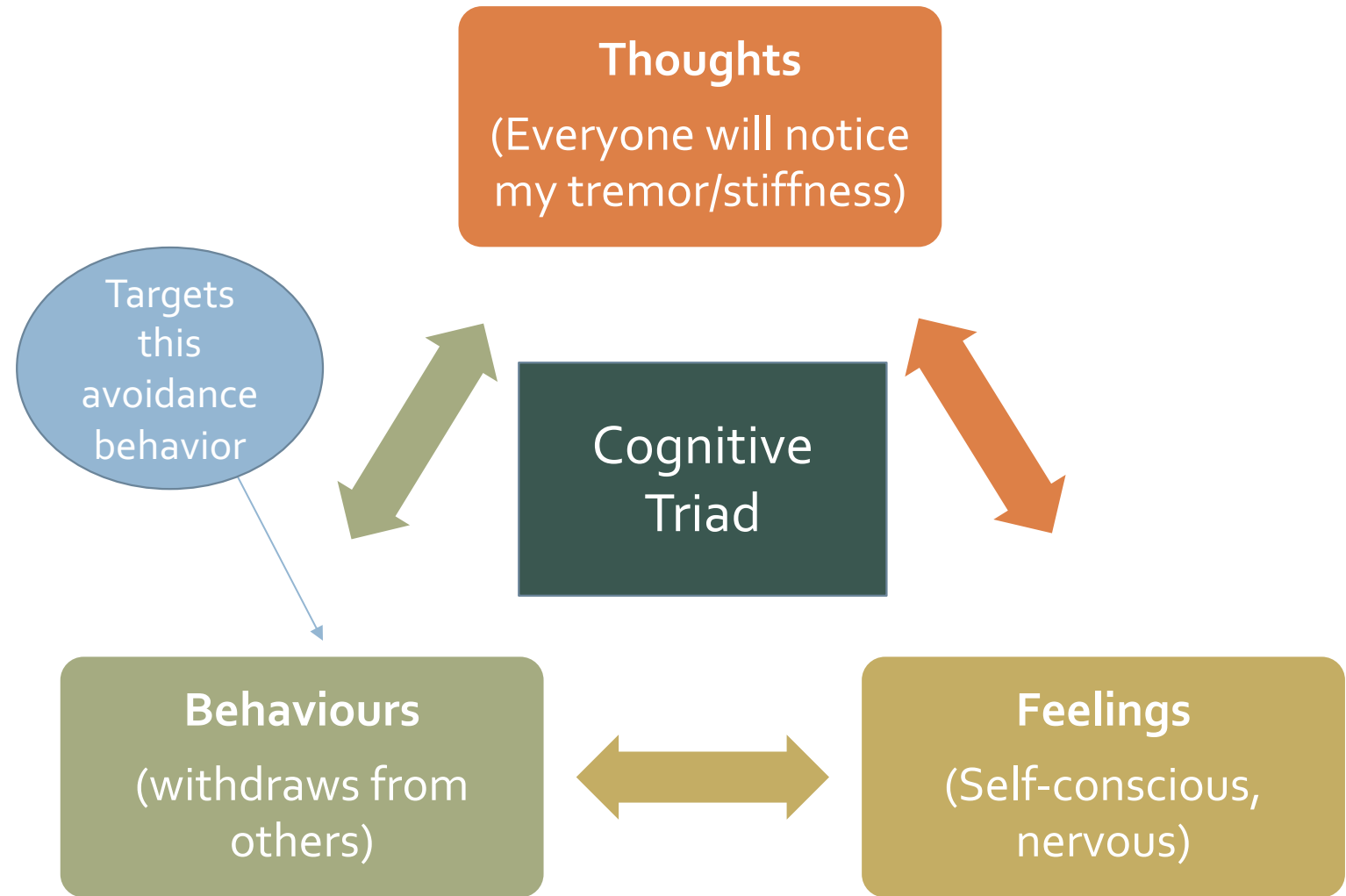


# Managing Anxiety

- Dose adjustment of Levodopa (if related to wearing off)
- Exercise
- Psychotherapy (Cognitive Behavioural Therapy, Mindfulness Based Stress Reduction)
- Mindfulness meditation / deep breathing
- **Medications:** *SSRI'S, SNRI'S*
- *Mirtazapine*
- *Benzodiazepines (avoid)*



# Cognitive Behavioural Therapy



# Managing Depression

Psychotherapy (CBT, Mindfulness based stress reduction)

Physical activity

Treat insomnia as this can contribute to depression

Talk therapy/Counselling (Connect with the amazing PSBC counsellors!)

Support groups

Anti-depressants can help!

# Resources for Anxiety/Depression

- Calm app
- Mindshift
- Moodgym
- Bounce Back
- Anxietybc.ca



To help youth and adults bounce back from low mood, stress and anxiety



**Free self-help program delivered online or over the phone**

Video, skill-building workbooks and telephone coaching available in different languages

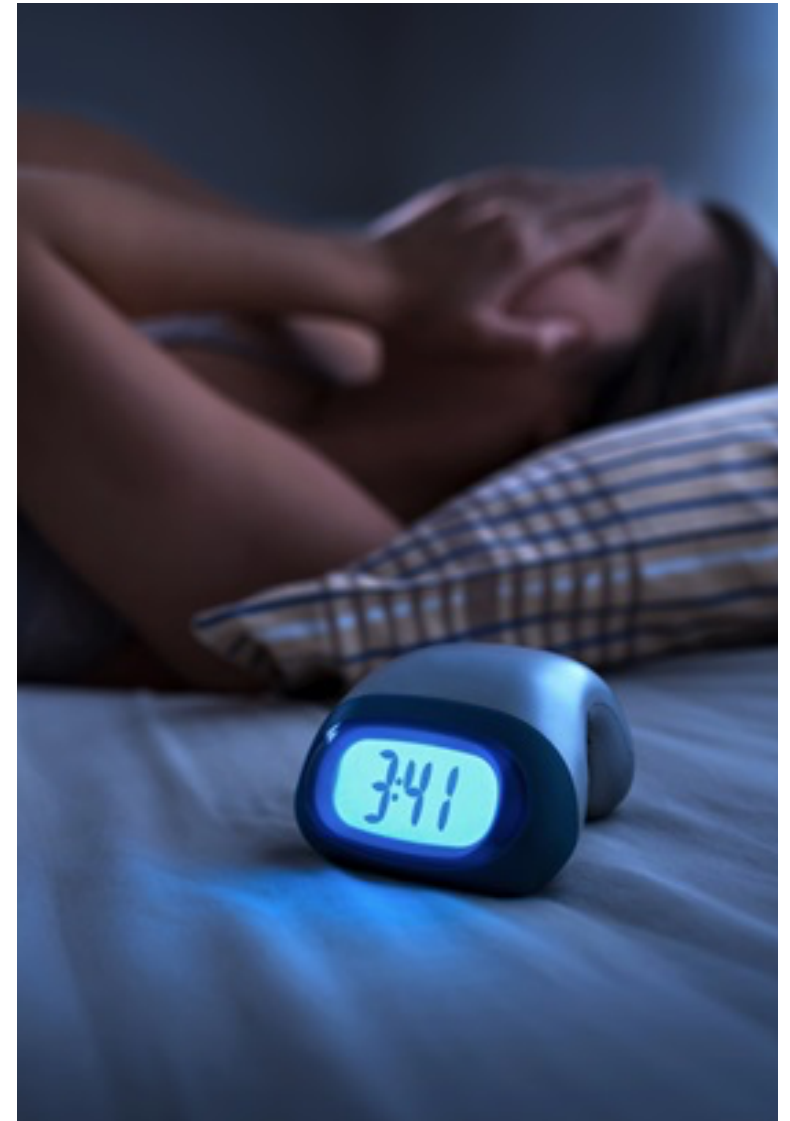
1-866-639-0522 | [www.bouncebackbc.ca](http://www.bouncebackbc.ca)

**Sign-up on our website or talk to your doctor**

**Now Accepting Self-Referrals:**  
Sign-up online if you are already connected to a doctor or nurse practitioner

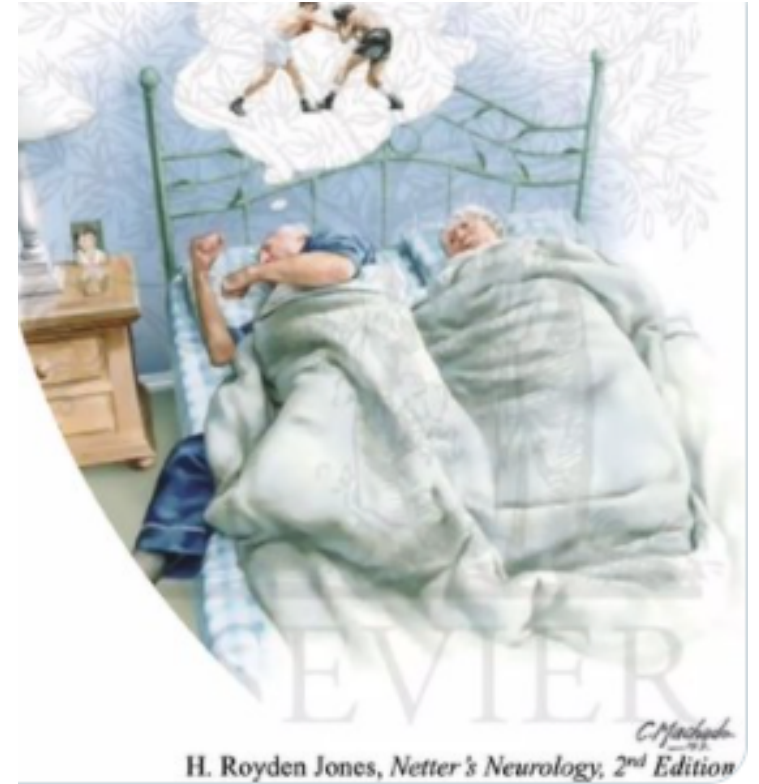
# Managing Insomnia

- Treat the root cause (can be multifactorial)
- **\*Sleep hygiene\***
- Exercise during the day
- Get outside! - Light exposure during the day
- Limit naps during the day
- Reduce screen time before bed
- Keep room for sleep and sexual activity only (no electronics)
- Relaxing strategies before bed
- Optimize dopaminergic medications (CR Levodopa)
- Sedating medications

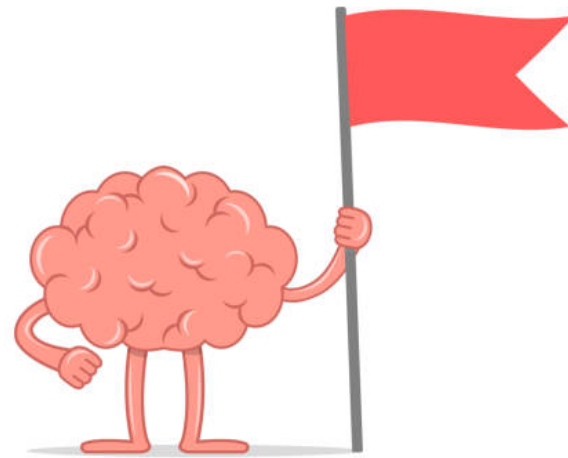


# Managing Rem Sleep Behaviour Disorder

- Ensure a safe bedroom environment
  - Declutter, put pillows between partner, move nightstand away from bed
- Melatonin
- Low dose Clonazepam



Remember: It  
is not *always*  
PD



## Key Take Aways



Medications can help to manage symptoms and prolong functioning



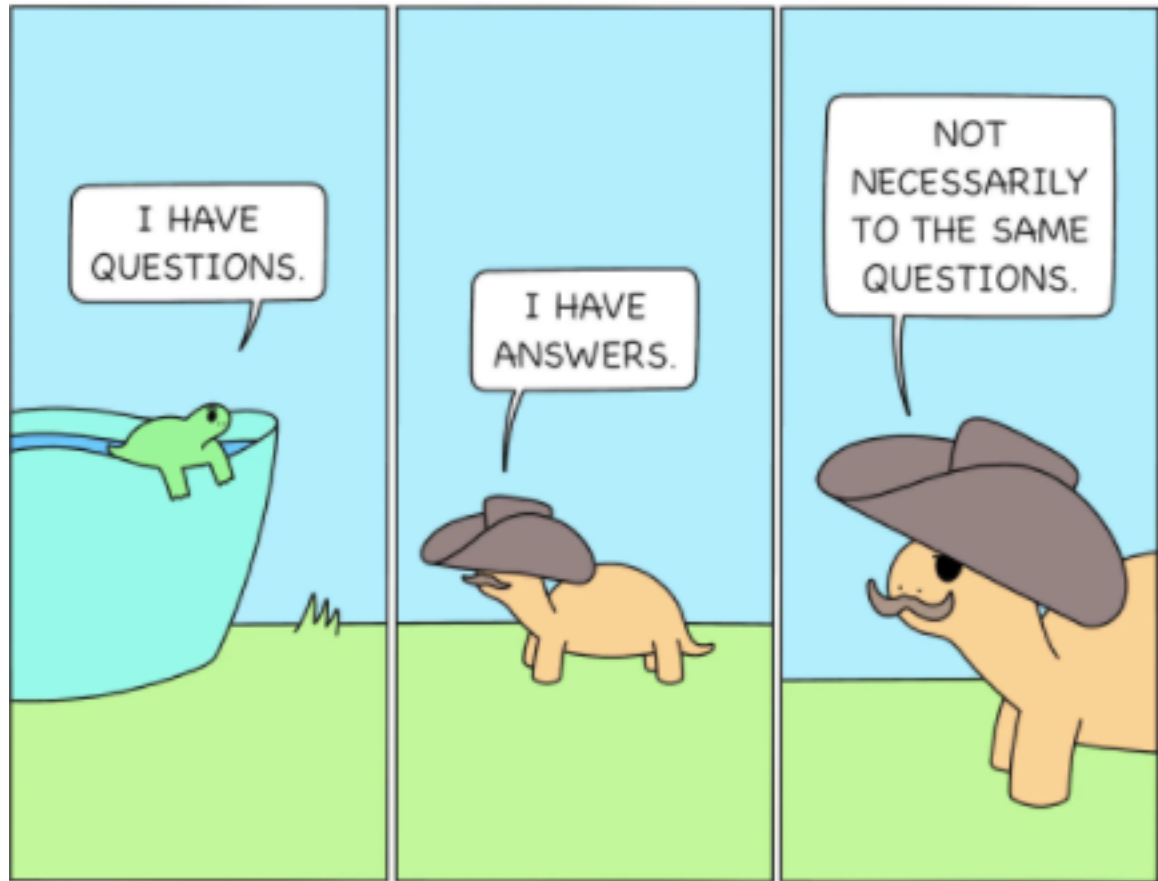
Exercise Exercise Exercise!



Great resources and support are available!  
You don't have to go on this journey alone!



Thank You!



@workingtheangles

Next  
Presentation:  
Tuesday  
February 22nd



- Join next week with Michelle (Physiotherapy)
- Panel discussion