

Depression, Anxiety and Apathy in Parkinson's Disease

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Non-Motor Symptoms in PD

Traditionally, Parkinson's disease = tremor, slowed movements, and other ***motor symptoms***

However, many regions of the nervous system are impacted in PD → ***non-motor symptoms***

Non-motor symptoms are broad

- Low blood pressure, temperature intolerance, vision issues, pain, etc.

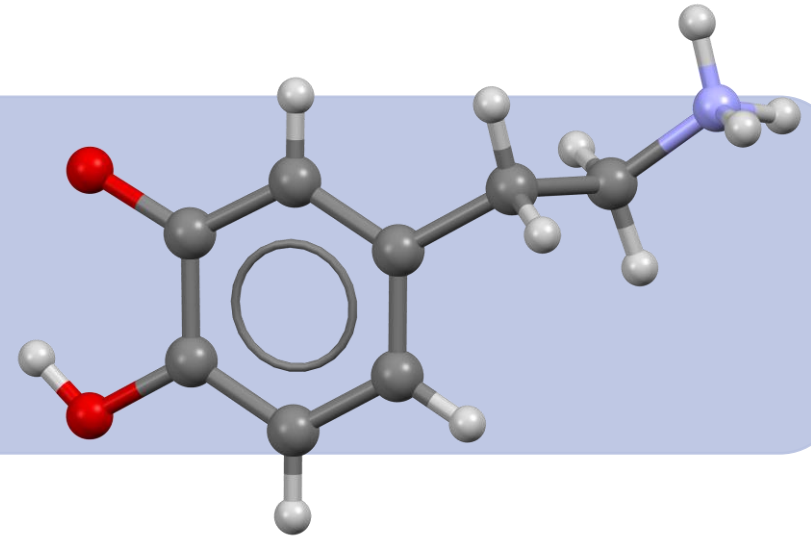
Non-motor symptoms also include changes to mental state:

- low mood, low motivation and/or excessive worrying
- These are primarily driven by brain chemistry/circuit changes

Brain Chemistry Changes

In PD, there can be a reduction in many major brain chemicals:

- Dopamine
- Acetylcholine
- Norepinephrine
- Serotonin



Loss of these chemicals can lead to mental state changes

- Depression
- Anxiety
- Apathy

Depression - Symptoms

Depressed mood / persistent sadness

Crying more

Loss of interest in or pleasure from activities you once enjoyed

Feeling worthless or inappropriately guilty

- Excessively feeling like a burden

Feeling helpless or hopeless

Change in eating habits (poor appetite or binge-eating)

Thoughts of death or harming yourself

Anxiety - Symptoms

Persistently feeling nervous, on edge

Constantly feeling like something bad is going to happen

Excessive worrying, inappropriate worrying

Trouble relaxing

Restlessness, unable to sit still

Easily annoyed, irritable, prone to anger

Panic attacks – sudden onset of distress, fear, trouble breathing

Fear of embarrassment in social situations, avoiding social situations

Apathy - Symptoms

Lack of motivation or drive to do things

Lack of enthusiasm

Feeling of indifference, **just don't care**

Can occur with depression, but sometimes on its own
without depression

Can accompany cognitive changes

What to do - First Steps

Tell your doctor and/or loved ones if you are feeling these symptoms

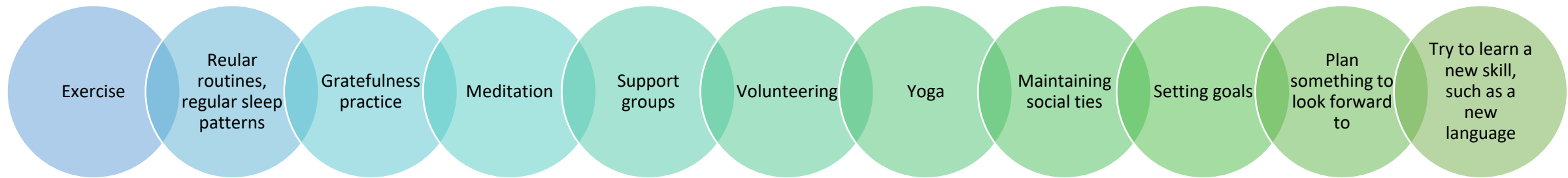
Take note:

Are your symptoms persistent/random?

Or are there trends / triggers?

- For example, are you more likely to have these symptoms when you are in an OFF state?
- If so, the dopamine medications can be adjusted

Lifestyle changes



Practically speaking, the most straightforward thing to do is join an exercise class. Yoga, Tai Chi, Rock Steady Boxing, etc.

<https://www.rocksteadyboxing.org/>

<https://pd-connect.org/>

<https://www.calendarwiz.com/calendars/calendar.php?crd=neurosciencesupportivecare>

Davis Phinney Foundation



- <https://www.youtube.com/user/davisphinneyfdn/video>
- **Helplessness & Hope in Parkinson's with Judy Long**
 - https://www.youtube.com/watch?v=5X8-5sKG3YQ&ab_channel=DavisPhinneyFoundationforParkinson%27s
 - <https://www.eventbrite.com/e/resiliency-for-people-living-with-neurologic-illness-registration-333291442677> (free class by Judy Long on wellness)
- **A Haiku Practice for Mindfulness**
 - <https://www.youtube.com/watch?v=dvnY2qUrdM0>

Cognitive Behavioral Therapy (CBT)

- Can be very effective
- Restructures your thought process, avoid thought 'distortions'
- There are apps on the phone to get started
 - Bloom
 - MindDoc
 - Sanvello
 - CBT Thought Diary
- Find the right therapist for you – don't stick with someone if you don't like them
- [Psychologytoday.com](https://www.psychologytoday.com)

Medications

Selective Serotonin Reuptake Inhibitors (SSRIs):

- Citalopram, Sertraline, Escitalopram, Paroxetine, Fluoxetine

Serotonin and Norepinephrine Reuptake Inhibitor (SNRIs):

- Venlafaxine, Duloxetine

Bupropion, Mirtazapine

For anxiety only:

- Buspirone, Benzodiazepines

Side Effects

Nausea, diarrhea, dizziness, sexual dysfunction, appetite changes, insomnia, headache

Rare: Worsening of motor symptoms

Timing:

Up to 6 weeks to take effect

Newer treatments

For depression/anxiety:

- Transcranial Magnetic Stimulation
- Ketamine
- Requires discussion with a Psychiatrist
- In research phase:
 - Psilocybin - psilocybinstudies@ucsf.edu

For apathy:

- Modafinil



Q&A