

Cognitive Changes

Thinking and memory changes are common non-motor symptoms of Parkinson's Disease. These symptoms can range from mild to significant or severe. When cognitive changes reach the severe level they are classified as "dementia".

There are 5 parts of cognition that may be affected by Parkinson's Disease:

- **Attention and Working Memory:** attention is the ability to choose and concentrate on specific stimuli in the current environment. Working memory is the ability to temporarily store current information that is important to the current situation.
- **Executive Functioning:** the ability to plan, organize, initiate, and regulate goal-directed behavior. Executive functioning activities include multitasking, problem solving, beginning new tasks, and changing tasks.
- **Memory:** learning and remembering information regarding past events, facts, concepts, or details.
- **Language:** language not only includes spoken language but also the ability to name objects, generate words, comprehend words and sentences, and recognize/appropriately use numbers.
- **Visuospatial Function:** this function allows us to understand where things are in space. It provides us with a map of our environment and gives us a sense of direction.

What Causes Cognitive Changes in People with Parkinson's

- Changes in the level of dopamine in the brain can cause mild cognitive changes
- The same brain changes that cause motor symptoms can also be responsible for mild to moderate cognitive changes
- Presence of Lewy Bodies causes significant cognitive changes and development of dementia
- Stress, some medications, and unmanaged depression can also contribute to these changes

Specific Cognitive Changes with Parkinson's Disease

- **Attention:** difficulty with completing complicated tasks, difficulty with multitasking, difficulty shifting attention, difficulties concentrating
- **Speed of Mental Processing:** thinking may be slower, delayed verbal responses, increased length of time to complete tasks, difficulty retrieving information from memory
- **Executive Functioning:** trouble planning activities, difficulty completing activities, difficulties grasping and forming different ideas and concepts, less mental flexibility, difficulties with problem solving
- **Memory Issues:** difficulty with common tasks such as keeping a morning routine, making breakfast, keeping finances, difficulties recalling both short and long term memories. These more advanced memory issues are associated with the development of dementia and severe cognitive changes
- **Language Changes:** difficulties with word finding, difficulties with speaking when under high levels of stress, difficulty

Specific Cognitive Changes with Parkinson's Disease cont.

- comprehending sentences or conversations, slurred speech, difficulties with naming objects or people (more common with dementia or severe cognitive changes)
- **Visuospatial Difficulties:** decreased depth perception, difficulties seeing in low light such as at night, as well as
 - Early PD: difficulty with measuring distance and depth perception. This may interfere with parking a car or walking up and down stairs.
 - Advanced PD: difficulty processing details and information about the environment and surroundings

What to Expect as a Care Partner:

- You may need to provide your loved one with prompts or reminders during the day for task completion
- In the mild to moderate stages of cognitive changes, it is best to only offer help when it is asked for
- You may need to put sticky notes around the home to provide your loved one with visual cues and reminders. For example, labeling cabinets with what is inside, labeling doors with what room it opens into
- You may need to help your loved one with remembering to take their medications
- It would be beneficial to keep frequently used items in the same place at all times
- Allow your loved one time to answer questions or find the word they are looking for - patience is key