



BEHAVIORAL SYMPTOMS

- Apathy:
 - A loss of motivation; a lack of feeling or interest in previously important activities, neglect of personal hygiene.
- Disinhibition:
 - Socially inappropriate behaviors, such as going up to strangers, inability to control impulses, emotions, and attention, falling for scams frequently, giving out personal information about oneself or others.
 - Engaging in illegal behaviors such as theft, traffic violations, and sexual offenses.
 - A reversion to childlike behaviors, childish jokes, flatulence, etc.
 - Increased sociability, going up to strangers and starting conversations like they know them.
 - Excessive sexual comments, behavior, and/or activity that is socially inappropriate.
- Compulsions and rituals:
 - Repetitive movements like clapping, finger snapping; repetitive speech like “very good”,
 - Introduction of very structured routines, involving multiple steps like strict eating habits, walking fixed routes, hoarding, and counting.
 - An sudden increase or change in religious practices or beliefs.
- Changes in eating:
 - Binging, new alcohol/tobacco use, change in food preferences, may have increased preference for sweets or carbohydrates. Can also be craving of non-food items.
- Emotional blunting:
 - Loss of empathy, inability to understand/share the feelings of others, decreased warmth towards loved ones.
 - Resistance to change, emotional inflexibility.
- Deficits in Executive Function:
 - Difficulty with decision-making, judgement, problem solving, and/or organizational skills
- Creativity:
 - An increase in artistic or musical creativity, an enhancement of visual artistic skills.
- Somatic complaints:
 - Reports of fatigue, headache, gastrointestinal symptoms, abnormal pain responses.





LANGUAGE SYMPTOMS

- Non-fluent speech: Effortful, slow speech; errors in word order when speaking. Limited spontaneous speech.
- Agrammatism:
 - Inability to use words in proper grammatical sequence
 - Omission of short connecting words like “the”, “to”, “from”; incorrect usage of word endings/verb tenses.
- Apraxia of speech:
 - Difficulty with physical movements needed to produce speech sounds, causing distorted speech.
- Single word knowledge loss:
 - Difficulty recalling the meanings of specific words
 - Impaired comprehension of the meaning of words
 - Difficulty describing what a word means
- Object knowledge loss:
 - Inability to recall the names of objects or find the right word
 - Being unable to remember what a familiar object is or how it is used.
- Working memory impairment:
 - Word finding pauses due to difficulty finding the right word while speaking and word retrieval failures
 - Talking around the word or substituting extended descriptions for single word (circumlocution)
 - Repetition issues especially with longer phrases or sentences
 - Continuously repeating words or phrases that were said to them (like a loop recording)
- Phonological speech errors:
 - Substituting sounds/syllables in a word, with the result being a word that is phonologically similar to the intended word (i.e., saying “apple” as ‘able’).
- Semantic or lexical speech errors:
 - Substituting a word with another word that has a similar meaning (i.e., saying couch instead of table, as they are both furniture).
- Surface dyslexia/dysgraphia:
 - Difficulty recognizing and reading irregular words like “knight” or “choir”
 - New difficulties with fine motor skills like handwriting, letter spacing, writing in a straight line, and making letters the correct size.
- Binary reversals: Consistently selecting the wrong choice from a pair of opposite verbal responses (such as yes/no).
- Discourse level impairment: Increasingly difficult to understand what they experience as “too much” verbal information, i.e. following the plot while watching television or understanding conversation in a group setting.





MOTOR SYMPTOMS

- Dysarthria:
 - Difficulty speaking due to muscle weakness, leading to slurred speech
 - Talking too quietly or too loudly, or a voice that sounds hoarse, nasally, or flat
- Dysphagia:
 - Difficulty swallowing, leading to gagging or choking
- Axial rigidity:
 - Stiffness of trunk and neck
 - Difficulty maintaining balance, can lead to frequent falls
- Supranuclear Gaze Palsies:
 - Inability to make voluntary eye movements like looking up or down or left to right
 - Slowing of the ability to shift eyes up and down or left to right
 - Blurring of vision
 - Rapid involuntary eye movement and abnormal blinking (increased or decreased)
 - Impaired vision while reading, writing, driving, etc.
- Increased sensitivity to light
- Limb apraxia:
 - Impaired ability for planning and execution of movements
 - Leads to an inability for the limb to carry out the intended motion even though the physical strength to do so is maintained
 - Difficulties completing familiar activities such as opening a door, using kitchen tools, etc.
 - Can present as symmetric or asymmetric (affecting one side of the body more than the other)
- Postural and gait instability:
 - Difficulty maintaining balance and posture, leading to increased risk of falls
 - Stooped posture, shuffling gait, decreased arm swing when walking
- Tremor:
 - An involuntary, rhythmic shaking movement in one or more parts of the body
 - Rest tremor: shaking that happens when muscles are relaxed and not moving
 - Action tremor: shaking that happens when one voluntarily moves their muscles
 - Postural (sustention) tremor: shaking that happens when one holds a position against gravity, such as stretching their arms out straight





MOTOR SYMPTOMS

- Limb rigidity:
 - Muscles become stiff and inflexible, making it difficult to freely move the limb
- Bradykinesia:
 - Slowness of movement
 - Difficulty initiating movements
 - Reduction of speed or the range of motion of repetitive movements
- Akinesia
 - Total absence of movement
- Myoclonus:
 - Sudden involuntary jerk of a muscle or group of muscles, appears like a twitching
- Dystonia:
 - Involuntary and uncontrollable muscle contractions
 - Causes twisting in the limbs or abnormal fixed postures
- Weakness:
 - Gradual weakening of muscles, slowing of movements that may cause muscle spasm
 - Difficulty with fine motor skills, and/or issues with walking and balance
- Fasciculations:
 - Visible, involuntary twitching of an individual muscle
 - Can appear like fine rippling or fluttering beneath the skin and usually do not move a limb
- Atrophy:
 - Muscle wasting, reduced muscle mass
 - A limb appearing smaller than the opposite side
- Spasticity:
 - Muscles are stiff/tight making movement difficult
 - Increase in muscle tone where there is more resistance to movement than usual
- Hyperreflexia:
 - Abnormally exaggerated reflexes, such as in elbows or knee-jerk
 - Rhythmic, repeating muscle spasm is present after a reflex test





OTHER COGNITIVE SYMPTOMS

- Prosopagnosia or face blindness:
 - May struggle to identify familiar faces, including those of loved ones, and may even have difficulty recognizing their own reflection in a mirror
- Difficulty with visual discrimination:
 - Not being able to tell the difference between similar shapes, letters, or objects
- Challenges with visual memory or visual sequencing:
 - Difficulty remembering shapes, faces, or sequences of letters or numbers
 - Difficulty seeing shapes, letters, or words in the correct order
- Problems with spatial awareness:
 - Struggles with orienting and understanding where themselves or objects are in space, like reading maps or following directions
- Visual-motor integration difficulties:
 - Problems coordinating hand and eye movements, such as catching a ball or writing
- Apraxia:
 - Impairs a person's ability to plan and perform movements, even though they understand the task and have the physical ability to perform it
 - It's not a problem with muscle weakness or paralysis, but rather with the brain's ability to coordinate the necessary muscle movements
- Alien limb phenomenon:
 - Sensation that an arm or leg is not part of the body, accompanied by inability to control movement of the limb
- Acalculia:
 - Inability to carry out simple mathematical calculations, such as adding or subtracting
- Cortical sensory loss:
 - Impaired ability to recognize sensations due to parietal lobe dysfunction
 - Difficulty recognizing objects by touch or identifying numbers or letters traced on their skin
 - Difficulty distinguishing between different sensations like temperature or pain
 - Can also be associated with hemiparesis (weakness on one side of the body) or hemianopia (loss of vision in one visual field).





NEUROPSYCHIATRIC SYMPTOMS

- Formed visual hallucinations:
 - Complex hallucinations where individuals see clear, recognizable images of objects, people, scenes, etc. that are not actually there.
- Fluctuations:
 - Irregular or unpredictable changes in presentation/severity of symptoms (behavioral, cognitive, and/or language symptoms).
- Delusions:
 - False beliefs that are not based on reality
 - Resistant to logical explanation/proof that they are inaccurate
- Euphoria:
 - Dramatically elated mood, including inappropriate/childish remarks and jokes, joviality, and exaggerated self-esteem

AUTONOMIC SYMPTOMS

- Constipation:
 - Infrequent bowel movements
- Orthostatic hypotension:
 - A drop in blood pressure that occurs when someone stands up after sitting/lying down
 - Can cause dizziness, lightheadedness, and blurred vision
- Urinary incontinence:
 - Accidental leakage of urine due to a loss of bladder control
 - Functional incontinence, not as a result of physical impairment, stress, or bladder overflow
- Anosmia:
 - Partial or full loss of smell.
- REM Sleep Behavior Disorder:
 - Individuals physically act out vivid dreams because their body fails to experience normal muscle paralysis during REM sleep

