



# NEUROPSYCHIATRIC MANIFESTATIONS IN PARKINSON DISEASE



UNDERSTANDING PARKINSON DISEASE PSYCHOSIS AND WHAT THEY MEAN FOR DAILY LIFE

When a patient diagnosed with Parkinson’s disease (PD) experiences symptoms of misperception, such as hallucinations and delusions, either intermittently or continuously for more than one month in the absence of other identifiable causes, a physician may diagnose Parkinson’s disease psychosis (PDP)<sup>8,10</sup>. Psychotic symptoms typically occur during the later stages of the disease and can profoundly affect the daily lives of both patients and their loved ones. Additionally, these symptoms represent a significant risk factor for transition to an assisted living facility and may negatively impact long-term survival in PD. Appropriate and timely treatment of hallucinations and delusions in PD is essential to reduce the psychological burden on both patients and their caregivers and to prevent potentially serious disruptions to social relationships<sup>1,4,5,6,7,8,10</sup>. Early detection of PDP may also lead to improved treatment and care outcomes.

## Hallucinations

Hallucinations are abnormal perceptions that occur without a real physical stimulus and can involve any sensory modality, such as sight (visual), hearing (auditory), touch (tactile), smell (olfactory), or taste (gustatory)<sup>5</sup>. The duration of individual hallucinatory episodes is usually between a few seconds and half an hour<sup>4,5,6,7,8</sup>. To read a complete description of hallucinations please go to “Hallucinations in Parkinson Disease” .



<https://pssso.ca/wp-content/uploads/2026/05/Hallucinations-in-Parkinsons-Disease.pdf>

## Delusions

Delusions in PD are false, fixed beliefs that persist despite contradictory evidence<sup>5,9</sup>. They are less common than hallucinations, with a prevalence of 7–14%<sup>4,8</sup>, and rarely occur in patients who have never experienced hallucinations<sup>8</sup>. They are often accompanied by visual (VH) or auditory (AH) hallucinations. A sense of threat may arise, leading to agitation, argumentativeness, aggression, or unsafe behaviors<sup>5</sup>. These symptoms are challenging to manage because they do not consistently respond to antipsychotic treatment<sup>5</sup>.



## Common Delusions Found in PD<sup>4,5</sup>

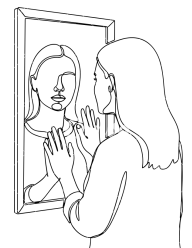
**Othello syndrome:** Characterized by pathological **jealousy**, typically involving unfounded suspicions of a partner’s **infidelity**.

**Persecution:** The belief that someone is trying to harm, watch, cheat, or plot against you.

**Abandonment:** The fear or belief that loved ones will leave you or withdraw their support.

**Paranoia:** Strong mistrust of others; may include refusing medications because they are believed to be harmful.

**Stealing:** The belief that others are taking personal items, even when nothing is missing.



## Unusual Delusional Syndromes Found in PD<sup>5,10</sup>

**Capgras syndrome:** The belief that a familiar person has been replaced by an imposter; this is the most common among these rare delusional phenomena.

**Fregoli delusion:** The person believes that someone they know is pretending to be different people or strangers.

**Ekbom syndrome:** The false belief of being infested with insects or parasites.



**Mirrored self-misidentification:** A failure to recognize one’s own reflection as oneself.

**Diogenes syndrome:** A condition where a person may neglect their own care, keep large amounts of objects, and live in a very cluttered or unclean home.

**Reduplicative paramnesia:** The belief that a place or room has been duplicated and exists simultaneously in two locations.

## Risk Factors

Older age, longer duration of illness, cognitive impairment and higher severity of motor symptoms are described as risk factors for PDP. Additionally, the presence of sleep disturbances, such as REM Sleep Behavior Disorder, vivid dream phenomena, and excessive daytime sleepiness, along with, declining visual acuity, hyposmia, and pre-existing neuropsychiatric conditions like depression, are associated with the emergence of psychosis in PD. However, the exact role of these factors in the biological origin of PDP is not yet clearly understood<sup>1,5,6,7,8,10</sup>.

## Insight

Insight is the ability to recognize that a perception, like seeing a figure or hearing a sound, is being generated by the brain and is not actually happening in the real world. And PDP patients without dementia often retain that insight during hallucinatory episodes, or are responsive when informed by others that these experiences are not real. However, loss of insight into the unreal character of hallucinations may evolve over time<sup>8</sup>. Patients may experience day-to-day fluctuations as part of the typical disease course, medication status, or life stressors<sup>8</sup>. Treatment strategies for psychosis vary based on whether the person has insight.

## Triggers

A trigger is a factor that can cause a symptom to start or worsen. These triggers can be external (from outside the body) or internal (from inside the body).

The most significant external trigger for psychotic symptoms in PD is drug therapy used to treat motor symptoms. In principle, any PD medication can cause these symptoms in genetically predisposed individuals<sup>8,10</sup>. Other external triggers include infections (such as pneumonia or urinary tract infections), severe dehydration, or acute cerebrovascular events. Specific to visual hallucinations (VH), low lighting and low levels of attention caused by drowsiness or sleepiness are also identified as triggers<sup>4</sup>.

Internal Triggers include metabolic or endocrine disorders, such as changes in thyroid hormone production<sup>8</sup>.

## Pharmacological Treatment

If hallucinations in PD are not treated, they usually continue over time, with a low tendency for spontaneous remission<sup>8</sup>. The first step is always to search for possible triggers. Once other causes of psychosis are ruled out, the doctor may adjust or discontinue the medicines used for motor symptoms or other conditions, since some of them can make hallucinations worse. These adjustments can lead to critical motor worsening ('akinetic crisis') and dopaminergic withdrawal symptoms<sup>8,4,10</sup>. In some cases, antipsychotic medicines may be needed, although they can also worsen motor symptoms in certain patients<sup>4,8,10</sup>.

Mild, intermittent hallucinatory phenomena, especially when the person understands that they are not real, are often not very distressing, and with appropriate counselling, antipsychotic medicines may not be required. However, some studies suggest that early administration of antipsychotics in patients having mild hallucinations reduces the risk of deterioration of psychotic symptoms by delaying the onset of VH<sup>7</sup>. Therefore, the decision to use antipsychotic medicines varies with each case. Discontinuation of antipsychotic therapy often leads to recurrence of hallucinations or psychosis<sup>8</sup>.

## No Pharmacological Treatment

There is no strong evidence to show which non-pharmacological strategies work best for PDP<sup>8</sup>. However, many people find these approaches helpful. They can be used together with medicines, or on their own when medication is not an option<sup>4</sup>.

- ✳️ **Improving of sensory processing:** Correcting vision problems or using hearing aids when needed may help reduce visual or auditory hallucination. Additionally, staying alert and engaged in daily activities can also help reduce visual misperceptions<sup>4,8</sup>.
- ✳️ **Understanding and managing triggers:** It can help to adjust environmental factors that do not cause negative emotions, such as improving lighting. In contrast, avoidant coping, for example, avoiding social situations or difficult emotions, may increase disability and make anxiety worse over time<sup>4</sup>.

## Cognitive Behavioural Therapy (CBT)

CBT can be used in patients with PDP who do not have dementia<sup>8</sup>. CBT helps reduce the distress caused by psychotic symptoms, improve quality of life, and address anxiety and depression, which can influence psychosis in different ways<sup>4</sup>.

- ✳️ **Appraisal modification** Helps the person change how they understand the hallucination, so it feels less frightening or distressing. The aim is to reduce fear and the reactions that increase discomfort<sup>4,8</sup>.
- ✳️ **Redirection of attention:** Helps the person shift their attention away from the hallucination and toward enjoyable or meaningful activities, which can reduce distress and unhelpful reactions<sup>4,8</sup>.
- ✳️ **Reality training:** When the person still has insight, reality training can help them tell the difference between a misperception and a real perception<sup>8</sup>. It may include simple, safe experiments, such as changing the lighting or moving to see whether the hallucination reacts as expected<sup>4</sup>. It can also involve planned conversations with caregivers to review what was perceived, check how accurate it was, and use simple reasoning strategies adapted to the person's cognitive abilities<sup>4</sup>.
- ✳️ **Management of maintenance factors:** Delusions can be maintained by excessive worry, low self-confidence, difficulty tolerating anxiety or unusual sensations, reasoning biases, and safety-seeking behaviours. Helpful strategies include breathing, relaxation, and cognitive-defusion exercises to reduce worry and anxiety; challenging negative beliefs and looking for evidence that contradicts them; reducing safety-seeking behaviours; and increasing engagement in activities to build self-confidence.

✳️ Psychoeducation and emotional support for caregivers and families, can reduce the burden of PDP, improve understanding of distressing symptoms, strengthen relationships, and guide how to respond to delusional beliefs<sup>4,8</sup>.