

Non Motor Symptoms & Parkinson's

The symptoms of Parkinson's are multi-faceted. While many associate the condition with physical or *motor* symptoms that affect the individual's ability to move smoothly and spontaneously, non-motor symptoms also have a significant impact.

Unfortunately, in addressing treatment options and issues, these symptoms are harder to identify, and are often overlooked, mis-understood and mis-diagnosed

Most people living with Parkinson's will experience some non-motor symptoms at some stage, however the connection between the condition and these symptoms, which can be as diverse as drooling, feeling pain, gastric reflux, depression and behavioral changes, is often not identified for some time. For instance, the symptoms of depression can lead to a diagnosis of a mood disorder rather than being associated with Parkinson's (in other words, caused by the neurological condition).

Many non-motor symptoms overlap with conditions and traits that cause embarrassment, or are typically hidden from a health management agenda. Lack of understanding of Parkinson's-specific, non-motor symptoms can lead to mis-diagnosis or under-diagnosis, further compromising the treatment and management of the condition, as well as quality of life for the individual, carer and family. Being able to recognize such symptoms in relation to Parkinson's is a good first step in managing them.

Non-motor symptoms are often related to Parkinson's medication, and may occur at any time during the day, often when the individual is experiencing "wearing off" with medication or is over-medicated. A simple adjustment to the medication regime can be extremely helpful in responding to non-motor symptoms.

Major non-motor symptoms fall into the following categories:

Sleep disturbances

One of the most common, non-motor symptoms

is changes in sleep patterns, such as the occurrence of:

- Nightmares and vivid dreams
- REM sleep disturbance (increased mobility and thrashing about while asleep)
- Day time sleep attacks

Sleep problems may be related to Parkinson's or may be associated with Parkinson's medication, but will often respond to some simple changes to medication.

Throughout the night, sleep can be disturbed by lower levels of Dopamine, making turning in bed more difficult. Being "off" can also create other symptoms, such as the need to frequently urinate and the development of pain.

REM sleep disturbance occurs when, during your deepest sleep (or REM), which is characterized by lack of movement, you have intense movement and may flail about in bed, punch and even sleep walk. This causes a disturbed night's sleep for the individual and even their partner, and can worsen other motor and non-motor symptoms during the day.

Mood disturbances

Depression is a very common symptom for people living with Parkinson's. Up to 44 per cent of all people living with Parkinson's will experience depression at some stage of their illness.

Depression may be related to lower levels of Neurotransmitters (Serotonin and noradrenalin). It is also common to discover that depression has been present prior to diagnosis, and is often worsened when the diagnosis is made.

Depression is an easily managed symptom, and responds well to medication, however anti-depressant medications need to be selected carefully, as they can worsen symptoms. If you are feeling depressed, which may show up as a lack of interest in things you once enjoyed, poor appetite and withdrawing from communication with others, your GP can screen for depression by asking a few simple questions.

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They can then prescribe some carefully selected anti-depressant medications. Some people also feel that attending a support group is valuable in assisting with depression as they gain peer support. (*Contact Parkinson's Victoria to locate one in your area*).

Anxiety and panic disorders

Anxiety and panic disorders commonly affect people living with Parkinson's. Anxiety may occur as a panic attack, shortness of breath, palpitations, sweating, chest pain or choking sensations. The direct cause of this is not fully understood, but may be linked to "wearing off" or fluctuating levels of medication.

This symptom is easily managed and may be lessened or reduced with additional medications. Learning some anxiety management strategies is also beneficial.

Hallucinations may involve seeing, smelling, hearing, feeling or tasting something that does not exist, and many people living with Parkinson's will experience hallucinations from time to time. The exact cause of these is not known, but hallucinations may be related to Parkinson's and/or medication. In most instances, experiencing hallucinations is easy to treat with a simple medication review, but occasionally, other medications (such as Serequel or Clozaril) may be required to manage the symptom. The consulting neurologist is the best person to recommend and prescribe these. **Keep in mind that medication changes may impact upon motor function.**

Autonomic disturbances

Another non-motor symptom associated with Parkinson's is changes in the Autonomic Nervous System*.

Changes in the ANS may result in delayed gastric emptying, reflux or heart burn, constipation and changes in bowel patterns, urinary problems (incontinence or urinary retention), erectile dysfunction in males and orthostasis (difficulty in managing your blood pressure, caused by a loss of cardiac sympathetic tone, which may worsen by taking dopamine based medications).

These autonomic changes may respond to some changes in medication regimes or the addition of other medications. The individual may also benefit from learning strategies to manage them.

Behavioral changes

Developing unusual behaviors that are out of character can also be a non-motor symptom. These are almost always associated with the use of Parkinson's medications, specifically Dopaminergic medications (both Levo Dopa and Dopamine Agonists).

These behaviors may show up as compulsive behaviors, for example an urge to gamble, or an obsession with a particular thing, such as a hobby. In people who experience this symptom, increased risk-taking or novelty-seeking behaviors, an increased sex drive or sexually inappropriate behaviors (known as Hypersexuality) may also be apparent. The underlying cause of these behaviors is not fully understood, however symptoms can often be managed by changing or reducing medications.

Sensation disturbances

Other non-motor symptoms include sensory changes or developing a pain sensation, difficulties with multi tasking or carrying out complex tasks and developing some delusions or fixed beliefs.

Thinking and Cognitive changes

Most people living with Parkinson's do not have cognitive alteration or changes in their ability to think and reason. Some do experience changes in memory, executive function (such as problems in multi tasking, sequencing and verbal fluency) and a decline in visuo-spatial skills.

These changes are thought to relate back to changes in the pathways of the brain, which disrupts thought patterns.

While these symptoms may be difficult to treat, some simple strategies will decrease their impact and eliminate other causes. Assessing for depression, which often exacerbates cognitive changes, will also improve cognition. Disrupted sleep patterns can also significantly

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affect cognition and once a normal sleep pattern has been restored, thinking and cognition will often improve.

Discuss any memory changes with your Neurologist or GP, who will carry out some diagnostic tests (a blood test and possibly a CT scan) to look for chemical or physiological causes of memory changes. These can often be reversed with the appropriate medication. The doctor may also refer a client to a Neuropsychologist who can assess the individual's ability to think, identify where problems may stem from, and provide strategies to deal with them.

In summary

Non-motor symptoms are extremely unpredictable and unusual in their presentation, and often appear unrelated to Parkinson's.

Understanding that Parkinson's does not just impact on motor coordination, but that it may also affect the individual in other ways is vital in achieving the best treatment management plan for each individual.

Not every one will experience non-motor symptoms, but when they do occur they can be extremely challenging for the person experiencing them, their carer and the various health professionals involved in treatment management.

Failure to address non-motor symptoms or incorporate appropriate treatment into the greater treatment plan can not only intensify the motor symptoms, but adversely affect the general well being of the individual.

Non-motor symptoms are often poorly understood by general practitioners and other health care professionals, so if you are experiencing some unusual symptoms it is important to discuss them with your neurologist, who is the best person to assist in developing a management plan.

The Client Services team at Parkinson's Victoria offers professional and confidential advice and support services.

Call and speak with our Duty Worker to discuss any concerns you have about these unusual symptoms.

*ANS includes the parasympathetic nervous system, (which is primarily involved in relaxation), and the sympathetic nervous system (which causes the body to become more active as in the "fight or flight" response).

Together, these control the body's internal state and mostly concern activities performed without conscious control such as widening of the pupils, salivation and sweating.