

## DYSTONIA IN PARKINSON'S DISEASE

People with Parkinson's disease (PD) may experience dystonia. Dystonia occurs as a result of painful abnormal muscle contractions related to a dysfunction in the region of the brain affected by PD, called the basal ganglia. It is characterized by abnormal postures, rigid twisting, turning and/or clenching (e.g., toe curling or leg cramps). People may experience these symptoms in their neck, shoulders, arms, hands, feet, face, jaw and vocal folds.

### Causes of Dystonia

Dystonia may occur as an early symptom of PD or as a complication of treatment. For instance, it may occur during "off" periods, which is when the efficacy of levodopa treatment begins to wear off. This occurrence is known as "off" dystonia. For many, this may occur in the morning if the last dose of levodopa was taken before bed the previous evening. In contrast, dystonia may also occur during periods when levodopa has recently been taken and muscle spasms occur as a result of too much dopamine in the brain at one time. This occurrence is referred to as "on" dystonia. In some circumstances, dystonia may simply be a symptom of PD, however this is rare.

### Treating Dystonia

Knowing what is causing your dystonia is the first step in treating it. If your dystonia is affected by your PD medications, your doctor may be able to work with you to minimize these side effects by modifying doses of levodopa.

Additional treatment options may include:

- therapies such as yoga, tai chi, qi gong, and meditation.
- physical therapy
- taking muscle relaxants or antispastic agents
- botulinum toxin injections (i.e., Botox, Xeomin, Dysport)
- Deep Brain Stimulation surgery

### Sources

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