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## Information on Dyskinesia

People with PD who use levodopa long-term may experience dyskinesia at some point, usually three to five years after starting the medication. The term dyskinesia describes involuntary, erratic, writhing movements of the face, arms, legs, and/or trunk, which usually occur one to two hours after a dose of levodopa has been absorbed into the bloodstream and is having its peak clinical effect. Dyskinesia tends to be more severe as the dose of levodopa increases. They can be severe enough to interfere with a person's normal functioning and to cause discomfort if they can't be controlled. In advanced PD, when motor fluctuations are common, it is often difficult to produce the "on" response without dyskinesia. This makes it difficult to achieve the satisfactory benefit characteristic of the "on" response early in the course of the illness. Most people with PD prefer to tolerate some levodopa-related involuntary movement in order to derive its benefit. The management of dyskinesia and the associated phenomenon of "wearing-off" is discussed in greater detail in the next chapter.

**KEY POINT:** After several years of a smooth response to levodopa, many people with PD notice the appearance of motor fluctuations ("wearing-off") and involuntary movements ("dyskinesia"). These complications can usually be managed by adjusting the amount of drug and the timing of the doses.

Dyskinesia can be seen with the use of DAs but less frequently than with levodopa therapy. In fact, clinical trials have shown that when combined with levodopa, treatment with a DA Permits the use of a lower dose of levodopa and consequently a reduced probability that dyskinesia will occur.

COMT-inhibitors are generally well-tolerated, though they may exaggerate some levodopa-related side effects, particularly dyskinesia. Additional side effects include confusion, hallucinations, discoloration of urine (reddish-brown or rust-colored) and diarrhea.

Amantadine often provides immediate benefit for most PD motor symptoms, but its effect frequently wanes after a few weeks or months. It is unique, however, in that it can also reduce levodopa-induced dyskinesia.

(Excerpt from NPF publication *Medications*)

**Q. Will surgery eliminate or alleviate dyskinesia?**

**A.** Yes, it certainly can in some cases. Both the STN and GPI are both effective at treating dyskinesia. Many people believe GPI is a little better, but it isn't 100% clear (studies pending). It will treat, but not necessarily eliminate in all cases. GPU DBS seems to suppress dyskinesia, while STNDBS works by medication reduction (in most cases) which then indirectly leads to decreased dyskinesia.

(Excerpt from Parkinson Report Fall 2006)

