

# Parkinson's disease medication triggers destructive behaviors

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A new study conducted at Mayo Clinic reports that one in six patients receiving therapeutic doses of certain drugs for Parkinson's disease develops new-onset, potentially destructive behaviors, notably compulsive gambling or hypersexuality.

VIDEO ALERT: Additional audio and video resources including excerpts from an interview with Dr. J. Michael Bostwick describing the research, are available on the Mayo Clinic News Blog.

The study extends findings from two Mayo case series published in 2005 that reported a connection between [dopamine](#) agonist medications and compulsive gambling or hypersexuality.

Dopamine agonists are a class of drugs that include pramipexole and ropinirole. They are commonly used to treat Parkinson's disease, but low doses also are used for [restless legs syndrome](#). They uniquely stimulate brain limbic circuits, which are thought to be fundamental substrates for emotional, reward and hedonistic behaviors.

"The 2005 case series alerted us that something bad was happening to some unfortunate people. This study was done to assess the likelihood that this effect would happen to the average Parkinson's patient treated with these agents," says J. Michael Bostwick, M.D., Mayo Clinic psychiatrist who spearheaded the new study. It is published in the April issue of *Mayo Clinic Proceedings*.

The researchers analyzed the medical records of [patients](#) with Parkinson's disease residing in counties surrounding Rochester, Minn., who received their primary neurological care at Mayo Clinic in Rochester between 2004 and 2006. This group included 267 patients. Of those, 66 were taking dopamine agonists for their Parkinson's disease. Of those 66, 38 were taking the drugs in therapeutic doses (doses expected to be at least minimally beneficial).

The findings were definitive. Seven patients experiencing new-onset compulsive gambling or hypersexuality were taking dopamine agonists in therapeutic doses. None of the other Parkinson's disease patients developed compulsive gambling habits or hypersexuality, including the 28 patients on subtherapeutic dopamine agonist doses or the other 201 patients not taking dopamine agonists. None of the 178 patients treated only with the standard drug for Parkinson's disease, carbidopa/levodopa, developed these behaviors.

"It is crucial for clinicians prescribing dopamine agonists to apprise patients as well as their spouses or partners about this potential side effect. The onset can be insidious and overlooked until life-altering problems develop," says J. Eric Ahlskog, M.D., Ph.D., Mayo Clinic neurologist who co-authored and treated many of the patients in the 2005 study. "It also is worth noting that the affected patients were all taking therapeutic doses. Very low doses, such as those used to treat restless legs syndrome, carry much less risk."

"For some patients, a reduction in the dose of the dopamine agonist may prove to be sufficient treatment," says Dr. Ahlskog, "although total elimination of the offending drug is often necessary."

Source: Mayo Clinic ([news](#) : [web](#))

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