

Understanding Parkinson's Impulse Control and PD



For people with Parkinson's disease (PD), managing the disease often comes down to a daily balance of dopamine — the neurotransmitter that is lost in PD. The challenge is to work with dopamine replacement therapies to find a balance between high and low levels. Dopamine medications have improved life for millions of people. But there has been increasing discussion about impulse control disorders (ICDs), a phrase that is used to describe unhealthy levels of gambling, shopping, eating and sexual activity. Researchers think that some people with Parkinson's who exhibit these behaviors may be experiencing a side effect of some dopamine replacement therapies. Are you concerned that you or a loved one may be affected? To answer your questions, the Parkinson's Disease Foundation (PDF) sat down with Daniel Weintraub, M.D., who in 2010 published the largest study of ICDs ever conducted.

PDF What are impulse control disorders?

DW In Parkinson's, the term "impulse control disorders," or ICDs, is commonly used to refer to a group of behaviors — gambling, shopping, eating and sexual behaviors — that are compulsive or impulsive in nature. While pathological gambling has been the main focus in PD, our report and others have shown that all four are relatively common.

PDF How common are ICDs?

DW Our study demonstrated that, when measuring at one point in time, about 14 percent of people with PD experience one or more of the four behaviors mentioned above. We believe the true prevalence for these behaviors occurring anytime during PD may be higher — my guess is that it is between 15 and 20 percent. We also found that if a person experienced one ICD, he or she had a 25 to 30 percent chance of experiencing two or more. We found that men and women experience ICDs generally and compulsive gambling at similar rates. However, we found that men are more likely than women to have issues with sexual behavior, whereas women are more likely than men to experience compulsive buying and eating.

PDF How do ICDs impact people with PD?

DW For some people, ICDs may be mild, or just a minor nuisance (for example, increased focus on eating sweets with a 10 pound weight gain). For

others, the impact may be more severe. People who experience compulsive gambling and compulsive shopping may lose large sums of money, even to the point of bankruptcy. Those who binge eat may experience significant weight gain, causing discomfort and embarrassment and possibly increasing vascular disease risk factors. Some of those who experience compulsive sexual behaviors may begin engaging in unprotected sex or sex outside of an established relationship, placing themselves and others at risk physically and emotionally. ICDs typically impact not only the person living with PD, but also his or her loved ones.

PDF Do Parkinson's medications cause ICDs?

DW We think that because people living with PD have long-term exposure to dopamine replacement therapies, some may develop hypersensitivity. Hypersensitivity may in turn lead a person to "overreact" to medications. One common overreaction is dyskinesia, the twisting and writhing movements that some people with PD experience. ICDs may be another example of how the body overreacts to a dopamine medication.

PDF Which medications are linked to ICDs?

DW In our study, my colleagues and I found that ICDs are most strongly associated with dopamine agonists. The two most commonly used by people with PD, and which we studied, are pramipex-

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ole (Mirapex®) and ropinirole (Requip®). We also found that ICDs were relatively common in people taking pergolide (Permax®), an agonist no longer prescribed in the United States. Our study suggested that levodopa — the gold-standard anti-PD medication that is usually taken as Sinemet® — may also be associated with ICDs. But the odds of having this problem are less likely with levodopa use than with use of dopamine agonists.

A less frequently used medication called amantadine (Symmetrel®), is under suspicion as well. However, some studies have suggested it may actually be effective as a treatment for pathological gambling in PD, so more research is needed.

PDF Will a person develop an ICD immediately after beginning one of these medications?

DW Sometimes a person will experience an ICD months after beginning a medication, but often there is a lag time of a year or more. My sense is that most people with an ICD know that something is different, but they may not attribute the same importance to it as their loved ones will.

PDF How do you treat ICDs?

DW The most common treatment is to lower the dosage of or to remove the medication that has caused the problem, presumably the dopamine agonist. In mild to moderate cases, a person may elect to stay on this medication, but in moderate to severe cases, the doctor will feel obligated to take that person off of it completely.

ICDs “usually” subside for people who clearly did not experience the ICD previous to that time and developed it in the context of taking a dopamine replacement therapy for Parkinson’s. I have treated people who said they felt back to normal within a matter of days to a week, and others who said the change took weeks or months.

There is a much smaller subset of people for whom ICDs persist despite the discontinuation of medications. There is yet another subset of individuals for whom going off a medication is not an option. Perhaps their Parkinson’s symptoms are too severe, or they are receiving psychological benefit from the medication.

These individuals have other options. People who have significant motor fluctuations and have lived with PD for several years may be candidates for deep brain stimulation (DBS) surgery. Since a person can typically decrease his or her medications after DBS, this often will ease his or her ICD. A few other strategies have been explored, such as use of antidepressants, but there is little evidence at this point of their efficacy. Scientists are also investigating novel treatments to resolve ICDs but the evidence on these strategies is limited at this point.

PDF What does the future hold for diagnosing and treating ICDs in people with Parkinson’s?

DW We hope the new compounds under investigation will help to treat ICDs, or that the newer dopamine replacement therapies may not have ICDs as a complication. In addition, I think we need to develop tools to improve diagnosis and care, such as screening instruments that can be self-completed by people with Parkinson’s and their families in the waiting room. These would provide the doctor with data that they might not have the time to gather.

PDF Should people with Parkinson’s be concerned about their risk of developing ICDs?

DW I think they should be aware of these side effects exist and be attuned to any pre-occupation with a new behavior. For example, increased Internet use (of gambling or adult websites) could be a sign of an ICD, but this does not mean everyone using the Internet has a problem.

PDF How can people living with Parkinson’s and their families bring up this topic with their doctors?

DW I think clinicians have an obligation from day one, to let people know not just about ICDs, but about the whole range of side effects that can occur with levodopa and dopamine agonists. I tell my patients that I want them and their families to be aware that a subset of people with Parkinson’s may experience changes in gambling, buying, eating and sexual behaviors. I encourage them to talk to me about any changes in behavior. Similarly, I encourage all people with Parkinson’s, along with their families, that if they have noticed any change in such behaviors, to bring this up immediately with their physicians.

If you have or believe you have Parkinson’s disease, then promptly consult a physician and follow your physician’s advice. This publication is not a substitute for a physician’s diagnosis of Parkinson’s disease or for a physician’s prescription of drugs, treatment or operations for Parkinson’s disease.