Drivers with Parkinson's disease at higher risk of crashes in low visibility

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Drivers with mild to moderate Parkinson's disease may be at higher risk of crashes on foggy days and other times of low visibility. The research, involving a driving simulation test, is published in the October 6, 2009, print issue of *Neurology*®, the medical journal of the American Academy of Neurology.

In addition to affecting movement, Parkinson's disease affects visual skills, such as the ability to see contrast, and the speed of processing what is seen.

The study involved a driving simulation test taken by 67 people with mild to moderate Parkinson's disease and 51 healthy people about the same age. First they drove in good conditions, with clear skies. Then they drove in a foggy, low visibility situation, leading up to an intersection where another vehicle posed a crash risk.

More people with Parkinson's disease were unable to avoid the crash—76 percent versus 37 percent. Their reaction time was also longer—2.7 seconds compared to 2.1 seconds. For those who crashed, those with Parkinson's were driving at an average speed of 49 mph at the time of the crash, compared to 39 mph for those who did not have Parkinson's.

"Our results suggest that a large proportion of drivers with Parkinson's disease may be at risk for unsafe driving in low visibility situations such as fog or twilight," said study author Ergun Uc, MD, of the University of

Iowa in Iowa City and Veterans Affairs Medical Center of Iowa City, who is a member of the American Academy of Neurology.

Those with Parkinson's also had more instances where the car's wheels crossed over the center line or the shoulder line than people who did not have Parkinson's, and their performance worsened with the change from good to poor driving conditions.

Among those with Parkinson's disease, those who performed the worst on the driving test were those who had the lowest scores on tests of visual processing speed, motion perception, sensitivity to visual contrast and speed of movement.

Source: American Academy of Neurology (news : web)