

Smoking, head injury, pesticide use may be risk factors for rare sleep disorder

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Smoking, head injury, pesticide exposure, farming and less education may be risk factors for a rare sleep disorder that causes people to kick or punch during sleep, according to a study published in the June 27, 2012, online issue of *Neurology*, the medical journal of the American Academy of Neurology.

People with the disorder, called REM sleep [behavior disorder](#), do not have the normal lack of [muscle tone](#) that occurs during [rapid eye movement](#) (REM) sleep, causing them to act out their dreams. The movements can sometimes be violent, causing injury to the person or their bed partner. The disorder is estimated to occur in 0.5 percent of adults.

"Until now, we didn't know much about the risk factors for this disorder, except that it was more common in men and in older people," said study author Ronald B. Postuma, MD, MSc, with the Research Institute of the McGill University Health Centre (MUHC) in Montreal and a member of the American Academy of Neurology. "Because it is a rare disorder, it was difficult to gather information about enough patients for a full study. For this study, we worked with 13 institutions in 10 countries to get a full picture of the disorder."

The disorder can also be a precursor to neurodegenerative diseases such as Parkinson's disease and a type of dementia. Studies have shown that more than 50 percent of people with REM sleep behavior disorder go on to develop a [neurodegenerative disorder](#) years or even decades later.

"Due to this connection, we wanted to investigate whether the risk factors for REM sleep behavior disorder were similar to those for Parkinson's disease or dementia," Postuma said.

The results were mixed. While smoking has found to be a protective factor for Parkinson's disease,

people who smoked were found to be more likely to develop REM sleep behavior disorder. [Pesticide use](#), on the other hand, is a risk factor for both disorders. Studies have shown that people who drink coffee are less likely to develop Parkinson's, but this study found no relationship between coffee drinking and REM sleep behavior disorder.

For the study, 347 people with REM sleep behavior disorder were compared to 347 people who did not have the disorder. Of those, 218 had other [sleep disorders](#) and 129 had no sleep disorders.

Those with REM sleep behavior disorder were 43 percent more likely to be smokers, with 64 percent of those with the disorder having ever smoked, compared to 56 percent of those without the disorder. They were 59 percent more likely to have had a previous head injury with loss of consciousness, 67 percent more likely to have worked as farmers, and more than twice as likely to have been exposed to pesticides through work. Those with the disorder also had fewer years of education, with an average of 11.1 years, compared to 12.7 years for those without the disorder.

More information: To learn more about sleep disorders, visit www.aan.com/patients

Provided by American Academy of Neurology

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