

## Restless legs syndrome: French-Canadian families at higher risk

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Restless legs syndrome, which causes an irresistible desire to move legs, appears to be a hereditary condition that's more prominent among French Canadian women and may be caused by a combination of genetic influences and environmental effects. According to a large-scale study published in the *Archives of Neurology*, siblings of people affected by restless legs syndrome are three and a half times more likely to develop the disease.

The investigation, which builds on previous research that suggested the ailment is clustered in families, is the work of scientists from the University of Montreal, Sainte-Justine University Hospital Research Center, University of Montreal Hospital Research Center, Hôpital du Sacré-Cœur de Montréal, Montreal Heart Institute, Douglas Mental Health University Institute and McGill University.

"Until now, there has been a lack of large-scale, systematic and clinical studies precisely measuring the degree of heritability of [restless legs syndrome](#) in families - information that is critical if we are to advance genetic studies and discover the cause of this condition," says senior author Guy Rouleau, a professor at the University of Montreal Faculty of Medicine, director of the Sainte-Justine University Hospital Research Center and a scientist at the University of Montreal Hospital Research Center.

The research team studied 671 individuals diagnosed with restless legs syndrome in Quebec, Canada: 192 who were assessed at the Hôpital du

Sacré-Cœur de Montréal sleep center and 479 affected family members who responded to diagnostic interviews. In cases where one family member was diagnosed with restless legs syndrome, the condition appeared in 77 percent in other family members who participated in the study. By age 60, siblings of an individual with the condition were about 3.6 times more likely to have restless legs syndrome compared to people without an affected sibling. Offspring of parents with the condition had 1.8 times the risk of developing restless legs syndrome by the age of 40.

"Restless legs syndrome is prevalent in 10 to 15 percent of French-Canadians, yet the neurological disorder is often misdiagnosed. Restless legs syndrome is a chronic disorder with an average of 24 years of suffering, affects people of all ages and usually begins before the age of 30. Most family members who are diagnosed with the disease experience moderate symptoms of restless legs syndrome," says first author says Lan Xiong, a Université de Montréal researcher. "Our findings indicate that familial restless legs syndrome is more prominent among female relatives, particularly those who also have anemia or iron deficiency conditions, and who have multiple pregnancies."

The research team suggested that restless legs syndrome clusters in families due to genetic influences, environmental effects or the combination of both. "The cumulative total of family members affected by restless legs syndrome should be of interest to all concerned physicians, geneticists and epidemiologists," says Dr. Rouleau. "We also recommend that scientists and clinicians further examine how environmental risk factors, combined with genetic predisposition, may contribute to the occurrence of restless legs syndrome in families."

**More information:** Arch Neurol. 2010;67[5]:617-622.

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