

Parkinson Society Canada

Response to Research on Ibuprofen and Risk of Parkinson's disease

March 2011

*The following is PSC's response to a recent study by Harvard School of Public Health researchers showing that adults who regularly take ibuprofen, a non-steroidal anti-inflammatory drug (NSAID), have about one-third less risk of developing Parkinson's disease than non-users. The study was published in Neurology online on March 2, 2011 and in the March 8, 2011 print issue. In developing this information, we communicated with members of PSC's Research Policy Committee, Scientific Advisory Board and author of the study.*

From a research perspective, the idea that inflammation in the brain may contribute to Parkinson's is still under investigation. On one hand, several studies conducted with animal models have shown a strong link between inflammatory response and brain impairments. However, epidemiological (population-based) studies have yielded mixed results.

In the Harvard epidemiological study, participants with Parkinson's were asked if they regularly took aspirin, ibuprofen, acetaminophen or other non-steroidal anti-inflammatory drugs (NSAIDs). Only the participants taking ibuprofen had a lower risk of Parkinson's. The exact reason why only ibuprofen appeared to be protective for Parkinson's remains unclear. (According to the study's author, 80% of the participants who took ibuprofen did so for joint/muscle pain.)

There is currently no cure for Parkinson's, so the potential of lowering the risk of Parkinson's is important, making neuroprotection a key area of Parkinson's research.

The Harvard study holds the possibility that taking a widely-available NSAID may lower risk of Parkinson's. This result alone is insufficient to recommend the use of ibuprofen specifically for Parkinson's. As stated in the conclusion of the research, ibuprofen needs further study to determine if it is a potential neuroprotective drug against Parkinson's.

In short, the recently-published results are not a reason for people to start taking ibuprofen in the hopes that it will prevent Parkinson's. Or for people who already have Parkinson's to start taking ibuprofen unsupervised, in the hopes that it could slow progression of the disease.

Since 1981, Parkinson Society Canada's National Research Program has contributed over \$18 million towards Parkinson's research. Our program funds basic science to expand our knowledge and understanding of Parkinson's. We also fund research addressing the social implications of living with Parkinson's to improve quality of life. See our Research Highlights 2010-2011 for an update on current studies being funded by Parkinson Society Canada ([www.parkinson.ca](http://www.parkinson.ca)).