Smoking and Caffeine May Protect Against Parkinson's Disease ELE 482: Biomedical Engineering Seminar III April 16, 2007 By: Hamed Lahijani

<u>Parkinson's Disease</u>

Parkinson's disease is a degenerative disorder of the Central Nervous System that impairs the sufferer's motor skills and speech. Symptoms of Parkinson's disease include the trembling of the arms and legs, stiffness and rigidity of the muscles and slowness of movement.

The whole genetic idea...

In recent years, a number of specific genetic mutations causing Parkinson's disease have been discovered in certain populations, including people in the village of Contursi, Italy. In Contursi, one extended family had 60 cases of Parkinson's which was traced back to over 6 generations. This was the first time that evidence was found of a genetic link with Parkinson's. Although, genetics account relatively for a small minority of cases of Parkinson's disease. Somebody who has Parkinson's disease is more likely to have relatives that also have Parkinson's disease But that still doesn't mean that the disorder has been passed on genetically.

Duke University Research

A study done recently by researchers at The Duke University Medical Center has discovered that in families affected by Parkinson's disease, the people who smoked cigarettes and drank a lot of coffee were less likely to develop Parkinson's disease. The findings suggest that both genetic and environmental factors may influence the development of Parkinson's Disease. Previous studies had suggested that smokers and coffee drinkers had a lower risk of developing Parkinson's disease. But researchers say that this is the first study to look specifically at cigarette smoking and caffeine consumption within families affected by the disease. The researchers studied the associations between smoking, caffeine and Parkinson's disease in 356 Parkinson's disease patients and 317 family members without the disease.

Researchers found that individuals with Parkinson's disease were half as likely to report ever smoking and a third as likely to report current smoking compared with unaffected relatives. Also, individuals with Parkinson's disease were also less likely to drink large amounts of coffee.

Sources:

Smoking, Caffeine, and Non-steroidal Anti-inflammatory Drugs in Families With Parkinson Disease. Dana B. Hancock; Eden R. Martin; Jeffrey M. Stajich; Rita Jewett; Mark A. Stacy; Burton L. Scott; Jeffery M. Vance; William K. Scott. *Archives of Neurology*. April 2007; Volume 64: Pages 576-580.

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