# Exercise, Dairy Intake Linked to Parkinson's in Men

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LONG BEACH, CALIF. — Regular physical activity seems to confer a protective effect against the onset of Parkinson's disease in men but not in women—and that's not the only gender-related difference to emerge in recent studies of the disease.

For men who participate in physical activity over their life span, the risk of Parkinson's seems to be significantly lower, compared with men who are more sedentary, Honglei Chen, M.D., said at the annual meeting of the American College of Nutrition. For men, "the higher the [participation in] physical activity, the lower the risk of Parkinson's disease," he said. But the same does not seem to be true for women.

Differences in dietary influences are being documented, too. Men who consume fewer dairy products and who eat larger amounts of other food groups appear to run a lower risk of symptomatic disease.

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Conversely, men who are "big milk drinkers" seem to have a higher risk of Parkinson's. But the influence of dairy ingestion on Parkinson's is not turning up in women. The finding first surfaced in the Nurses' Health Study, and other studies seem to be bearing it out, said Dr. Chen of Harvard University, Boston.

Taken together, the data appear to suggest—just as some women's health groups have contended for years—that the inclusion of equal numbers of men and women can be important to interpretation of outcome in studies of disease states. Moreover, the findings on Parkinson's disease could be taken to mean that men and women need to be separately studied once such a difference emerges. "In men, these associations are consistent," Dr. Chen pointed out. Why isn't the same thing seen in women? That is not known, he said.

In a survey of literature and from data at his own center, he has concluded that exercise offers at least some preventive effect against Parkinson's for men, although it may serve only to delay onset or preserve function longer. Longer-term follow-up studies would be needed to discern whether the cohort in his study, of men in their 60s, simply had not yet become symptomatic. "This is an insidious disease," he pointed out.

As for diet: The theory that it plays a causative role in Parkinson's disease has been postulated for several decades. However, there are very few studies that have investigated this proposed link in a prospective way, he said.

He and his colleagues conducted a study in which 210 men and 184 women with Parkinson's disease were followed and their food intake recorded (Ann. Neurol. 2002;52:793-801). A positive association was found between dairy intake and disease risk in men but not in women. No other food group seemed to affect risk.

Among men, a significant positive association with risk was seen both for intakes of dairy foods and dairy calcium but not dairy fat. "Fat is out of the picture," he said. However, supplemental calcium and vitamin D were not related to risk. Further analysis showed that the risk seemed to come from nutrients in dairy products but not from other nutrients in other foods. "We found no association with nutrients from nondairy sources," he said.

In a separate study performed in Hawaii, the same association was seen.

The investigation, known informally as the Parkinson's Disease Honolulu Study, was helpful in demonstrating a possible link between dairy products and Parkinson's, Dr. Chen said. However, differences between the sexes regarding this risk cannot be drawn from its conclusions. "It only included men," he stressed.

Could something in the dairy product be a precursor to a factor that influences male risk? "We have some speculations," Dr. Chen said. "But we don't know."

Eating too much of anything over time seems to be a risk for both men and women. Obesity is a risk factor for Parkinson's nonsmokers of both sexes; the same is likely to be true among smokers, but it has been next to impossible to control for tobacco and nicotine exposure in studies of the latter population. ■