IN MONTH OF THE HEART, SCIENTISTS IDENTIFY BETTER WAY TO PREDICT HEART-DISEASE RISK

McLean, Va. (Feb. 10, 2009) – Knowing what someone eats can help doctors predict that person’s risk of heart disease more accurately, according to a new study by scientists in Greece1.

Their research found that including dietary factors in cardiovascular disease (CVD) risk-prediction models – along with traditional factors such as age, gender, smoking, blood pressure and cholesterol – improves the calculations that the models yield. The study, “Inclusion of Dietary Evaluation in Cardiovascular Disease Risk Prediction Models Increases Accuracy and Reduces Bias of the Estimations,” appears in the February 2009 peer-reviewed journal Risk Analysis, published by the McLean, Va.-based Society for Risk Analysis.

“In this month of the heart, we recognize that CVD is a leading cause of death and disability worldwide,” said Demosthenes B. Panagiotakos, one of the study’s authors. “Although the set of risk factors associated with CVD is more or less known and consistent among studies, some investigators believe the risk-prediction effort has not been very successful so far, and attributed inaccuracies mainly to the lack of important information including dietary habits, physical activity and body mass.

“Taking into account that the main goal of risk-prediction models is to identify individuals at high risk for CVD and, therefore, to identify people who are likely to benefit from aggressive preventive treatment, it is essential to increase those models’ accuracy,” he said.

To do so, the authors evaluated whether diet-related factors influenced accuracy in estimating five-year incidence of CVD in a population-based sample of 2,000-plus men and women. When dietary factors were not included, they found lower accuracy in estimating CVD events, with roughly one out of 10 participants misclassified.

1 Demosthenes B. Panagiotakos of Harokopio University, Athens, and Chistos Pitsavos and Christodoulos Stefanadis of the University of Athens.
“Based on several analyses, it was revealed that inclusion in the risk models of easily measured characteristics like the dietary habits of the participants, as well as other nutrition-related variables, increased the accuracy and reduced estimating bias of CVD prediction,” Panagiotakos said. “The addition of dietary assessment in risk-prediction equations may help clinicians and public health policy makers to better predict and, consequently, prevent the potential CVD candidate.”

The authors pointed out that the results were based on a Greek-derived Mediterranean diet score and may not generalize to other countries, and that some of the dietary measures were based on memory and self-reporting.

(Note to editors: The complete study is available upon request from Joseph L. Walker, SRA communications advisor, 703-491-3301 or walkercom2@aol.com, or may be accessed at http://www3.interscience.wiley.com/journal/118486448/home; contact Walker to interview lead author Demosthenes B. Panagiotakos.)

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