



JOURNAL OF THE AMERICAN HEART ASSOCIATION

Abstracts From the 2009 Joint Conference-Nutrition, Physical Activity and Metabolism and 49th Cardiovascular Disease Epidemiology and Prevention Circulation 2009;119;e271-e366 DOI: 10.1161/CIRCULATIONAHA.109.191960 Circulation is published by the American Heart Association. 7272 Greenville Avenue, Dallas, TX 72514 Copyright © 2009 American Heart Association. All rights reserved. Print ISSN: 0009-7322. Online ISSN: 1524-4539

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Conference Abstracts



Nutrition, Physical Activity and Metabolism Conference 2009

March 10 - 12, 2009

49th Cardiovascular Disease Epidemiology and Prevention Conference 2009

March 11 - 14, 2009

Innisbrook Resort and Golf Club Palm Harbor, Florida

For online information: *my.americanheart.org* E-mail: scientificconferences@heart.org Telephone: 888.242.2453 or 214.570.5935 The Council on Epidemiology and Prevention and the Council on Nutrition, Physical Activity and Metabolism welcome the co-sponsorship of the following organizations:

National Heart, Lung and Blood Institute American Society of Preventive Cardiology American Psychosomatic Society National Lipid Association The Obesity Society American College of Sports Medicine Preventive Cardiovascular Nurses Association American Society of Nutrition Society of Behavioral Medicine

The American Heart Association Council on Epidemiology and Prevention and Council on Nutrition, Physical Activity and Metabolism gratefully acknowledge the financial support provided for this program by

Merck & Co, Inc, Unilever, the Sandra A. Daugherty Foundation, the American Heart Association Industry Nutrition Advisory Panel, The Obesity Society, and the National Forum for Heart Disease and Stroke Prevention.

The American Heart Association Council on Epidemiology and Prevention and Council on Nutrition, Physical Activity and Metabolism are grateful to the conference Program Committee members for their dedication and leadership in the organization and planning of the programs.

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Association of Total Serum Cholesterol and Cancer Incidence in a Cohort of 172,210 Men and Women: A Prospective 19-Year Follow-up Study

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Background: The relationship between cancer incidence and total cholesterol is not well understood.

Methods: We investigated the association of total serum cholesterol (TSC) with overall and site-specific cancer incidence in a population-based cohort of 172,210 Austrian men and women, prospectively followed for a median of 13.0 years between 1985 and 2003. Cox regression models, allowing for time-dependent effects were used to estimate adjusted hazard ratios (HRs) with 95% confidence intervals (95%Cls) for the association of TSC with cancer incidence.

Results: During follow-up, 5,311 incident cancers occurred in men and 4,647 in women. We observed pronounced short-term associations of TSC and overall cancer incidence in both men and women. For malignancies diagnosed shortly (_5 months) after baseline TSC measurement, the highest TSC tertile (_235.0 mg/dL in men and _229.0 mg/dL in women) compared to the lowest tertile (_194.0 mg/dL in men and _190 mg/dL in women) was associated with a significantly lower overall cancer risk [HR_0.58 (95%CI: 0.43– 0.78, ptrend_0.0001) in men, HR_0.69 (95%CI: 0.49–0.99, ptrend_0.03) in women]. However, after roughly 5 months from baseline measurement, overall cancer risk was not significantly associated with TSC [highest compared to lowest TSC tertile HR_0.96 (95%CI: 0.89 – 1.03, ptrend_0.23) in men, HR_0.93 (95%CI: 0.85–1.01, ptrend_0.07) in women]. The short-term inverse association of high TSC with cancer risk was mainly driven by cancers of the digestive organs and lymphoid and haematopoietic tissue.

Conclusion: The short-term decrease of

cancer risk seen for high levels of TSC largely captures preclinical effects of cancer on TSC.