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CROSS SECTIONAL STUDY OF THE EFFECTS OF DRINKING BLACK TEA ON CARDIOVASCULAR DISEASE AMONG SAUDI WOMEN. IA Hakim*, MA Alsaif, AA Aloud and OS Al-Attas (University of Arizona College of Public Health, Tucson, AZ 85724)

We investigated the association between consumption of black tea and serum lipids in a Saudi population, with special reference to preventive effects of black tea against cardiovascular disease. **DESIGN**—Cross sectional study. **SUBJECTS**—1764 Saudi women aged 30-70 years who participated in a national study between 1993 and 1998. **RESULTS**—Consumption of six or more cups of black tea per day (≥ 480 ml) was reported by 11.9% (209) of women. Increased consumption of black tea was associated with lower prevalence of cardiovascular disease (P for trend=0.004). Those who did drink more than 6 cups of tea (≥ 480 ml) tea per day had a significantly lower prevalence of cardiovascular disease than the non-tea drinkers (adjusted OR=0.45; 95% confidence interval=0.21 -0.96). Moreover, increased consumption of black tea was associated with decreased serum concentrations of total cholesterol (P for trend < 0.026) and triglycerides (P for trend=0.008) with a decreased proportion of low and very low density lipoprotein cholesterol (P for trend=0.015 and 0.011 respectively) after adjusting for age, education, family history, body mass index, smoking, physical activity, use of oral contraceptives, and eggs and fat intake. **CONCLUSION**—The results of this cross-sectional study do support the beneficial effects of black tea on serum lipid levels among Saudi women. The inverse association between consumption of black tea and various serum markers shows that black tea may act protectively against cardiovascular disease among women.

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RETINAL ARTERIOLAR DIAMETER IS RELATED TO INCIDENT CORONARY HEART DISEASE IN WOMEN, BUT NOT MEN: THE ATHEROSCLEROSIS RISK IN COMMUNITIES STUDY. TY Wong*, R Klein, AR Sharrett, BB Duncan, DJ Couper, JM Tielsch, BE Klein and LD Hubbard (University of Wisconsin - Madison, Madison, WI 53705)

PURPOSE: The role of microvascular disease to the risk of coronary heart disease (CHD) in men versus women is not established. We describe the relation of retinal arteriolar diameters to incident CHD in men versus women. **METHODS:** Prospective population-based cohort study (n=9,648; age=51-72 years). Retinal photographs were digitized and diameters of retinal vessels measured on computer monitors. A summary arteriole-to-venule ratio (AVR) was derived, with smaller AVR indicating narrower arterioles. Incident CHD events were identified from standardized protocols. **RESULTS:** Over an average of 3.5 years, a total of 187 men and 84 women had incident CHD. After controlling for age, race and examination center, risk of CHD increased with decreasing AVR in women (hazard rate ratios comparing decreasing quintiles of AVR: 1.0, 1.4, 1.7, 2.6, 2.4; test of trend, $p=0.003$), but not in men (1.0, 1.3, 1.2, 1.2, 1.3; $p=0.47$) (gender interaction term $p=0.05$). In women, this relationship persisted despite controlling for 6-year mean arterial blood pressure, hypertension, diabetes, cigarette smoking, alcohol consumption, body mass index, waist-hip ratio, fasting lipids and glucose, and markers for inflammation (1.0, 1.2, 1.5, 2.2, 2.1; $p=0.01$). **Conclusion:** Retinal arteriolar diameter is related to incident CHD in women, but not men. This suggests a microvascular role in the pathogenesis of CHD in women, beyond that attributable to hypertension, diabetes, and other CHD risk factors.

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DIETARY FIBER INTAKE AND RISK OF CARDIOVASCULAR DISEASE AMONG WOMEN. S Liu*, J Buring, H Sesso, EB Rimm, WC Willett and JE Manson (Harvard Medical School, Boston, MA 02215)

Dietary fiber has been suggested to reduce the risk of cardiovascular disease (CVD), although few prospective studies have directly examined the association between the types and amounts of dietary fiber and CVD risk, particularly among women. In 1993, we used a detailed food frequency questionnaire to assess the amount and types of dietary fiber intake among 39,876 female health professionals with no previous history of cardiovascular disease or cancer, and subsequently followed these women for an average of 6 years for incidence of CVD. During 230,006 person-years of follow-up, 570 incident cases of CVD were documented, including 177 MIs. A significant inverse association was observed between dietary fiber intake and CVD risk. Comparing the highest quintile of fiber intake (26.3 g/day) to the lowest quintile (12.5 g/day), the relative risks (RR) were 0.65 (95% CI: 0.51, 0.84) for total CVD and 0.46 (95% CI: 0.30, 0.72) for MI. After adjustment for known CVD risk factors, the RRs comparing the two extreme quintiles were 0.79 (95% CI: 0.58, 1.09) for total CVD and 0.68 (95% CI: 0.36, 1.22) for MI. Inverse relations were also observed between both water-soluble and water-insoluble fiber and risk of CVD and MI, and were stronger among never smokers and those with BMI < 25. However, the magnitude of these associations was generally modest with wide 95% CIs. These prospective data suggest that a higher intake of dietary fiber intake may be associated with a lower risk of CVD. However, modest numbers of MI limited our ability to assess these relationship independent of other healthy lifestyle factors.

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COMPARATIVE EPIDEMIOLOGY OF TWO POTENTIAL HAZARDS: THRESHOLD FOR PUBLIC HEALTH ACTION. P Schulte*, L Stayner and A Okun (NIOSH, Cincinnati, OH 45226)

Public health authorities are often confronted with the question of when to issue warnings about potential hazards. In this paper, the epidemiologic records for occupational exposures involving latex gloves and carbonless copy paper (CCP) were compared to illustrate what attributes led to the issuance of a government Alert warning. The history of the use and the reported health effects for workers handling these materials were traced. Epidemiologic studies were compared for case definition and confirmation, strength of association, quality of evidence, and biological plausibility. For latex, an Alert was issued due to the severity of the health effects (allergy, asthma, anaphylaxis and death), the magnitude of the association, and the corroborating experimental evidence. In contrast, for CCP, the severity of health effects—generally, skin, eye, and upper respiratory irritation and, rarely, sensitization or systemic reactions—did not meet the same level of concern, nor was the strength of the association (generally odds ratios less than 2.0 and extensive potential for recall bias) or experimental evidence strong enough to generate an Alert. In the case of CCP, a hazard review report was issued and widely distributed. In both the Latex Alert and CCP Hazard Review report, recommendations to prevent health problems were provided. The public receives numerous health messages daily from a variety of sources including the news media, academic institutions, nonprofit organizations, and government agencies. It is important that the health messages issued, especially from government agencies, be based on clear science and be appropriate to the potential level and severity of risk.

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