



10. Arthritis, gender, disability and incidence of Coronary Heart Disease: A longitudinal Canadian population-based cohort study.

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OBJECTIVE: Despite the higher prevalence of most types of arthritis in women and gender differences in the prevalence and characteristics of heart disease, few longitudinal population-based studies report gender specific risks of heart disease associated with arthritis. The objective of the present study was to estimate gender-specific effects of arthritis and disability on incident heart disease in a nationally representative Canadian longitudinal population-based survey.

METHODS: Information on sociodemographic variables, self-reported physician-diagnosed chronic conditions (including arthritis and heart disease), activity limitation, and traditional risk factors, was collected every 2 years from 1994/95 through 2010/11 as part of the longitudinal Canadian National Population Health Survey (NPHS). Deaths due to ischaemic heart disease (ICD-10 codes I20-I25) and heart failure (ICD-10 codes I50.0-I50.9) were confirmed against the Canadian Vital Statistics Database. Discrete-time survival analysis stratified by gender was used to estimate effects of arthritis and disability on incident heart disease.

RESULTS: The study included 12, 591 participants with no prior history of heart disease and 1,783 incident heart disease events. After adjusting for common risk factors, arthritis was associated with a significant increased risk of incident heart disease in women (Adjusted OR: 1.69, 95% CI: 1.34-2.13). Even higher risks of incident heart disease were reported in women with arthritis and activity limitation (OR: 2.58, 95% CI: 1.94-3.44). Arthritis was not associated with incident heart disease in men except in the presence of activity limitation (OR: 1.67, 95% CI: 1.18-2.35).

CONCLUSION: Women with arthritis and men with arthritis and activity limitation have significant excess risks for developing heart disease. These findings point to the need for improved access to arthritis care, cardiovascular prevention strategies particularly in women with arthritis, and directed interventions towards prevention of activity limitation.