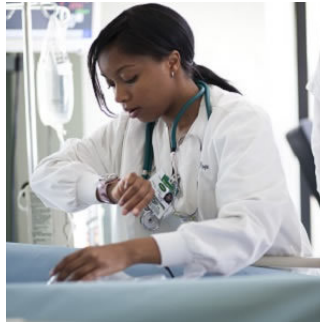

Rotating Night Shift Increases Risk of CHD in Women



Among female registered nurses, working a rotating night shift for 5 years or more was associated with a small increase in the risk of coronary heart disease, according to a study appearing in the April 26 issue of *JAMA*.

The disruption of social and biological rhythms that occur during shift work have been hypothesized to increase chronic disease risk, and evidence supports an association between shift work and coronary heart disease (CHD), metabolic disorders, and cancer. Prospective studies linking shift work to CHD have been inconsistent and limited by short follow-up. Celine Vetter, Ph.D., of Brigham and Women's Hospital and Harvard Medical School, Boston, and colleagues examined the incidence of CHD in 189,158 initially healthy women followed up over 24 years in the Nurses' Health Studies (NHS [1988-2012]: n = 73,623 and NHS2 [1989-2013]: n = 115,535). The researchers determined the lifetime history of rotating night shift work (3 night shifts or more per month in addition to day and evening shifts) of the nurses at baseline (updated every 2 to 4 years in the NHS2).

During follow-up, 7,303 incident CHD cases (i.e., nonfatal heart attack, CHD death, angiogram-confirmed angina pectoris, coronary artery bypass graft surgery, stents, and angioplasty) occurred in the NHS and 3,519 in the NHS2. Analysis indicated that increasing years of rotating night shift work was associated with a statistically significant but small absolute increase in CHD risk. In the NHS, the association between duration of shift work and CHD was stronger in the first half of follow-up than in the second half, suggesting waning risk after cessation of shift work. Longer time since quitting shift work was associated with decreased CHD risk among shift workers in the NHS2.

"Further research is needed to explore whether the association is related to specific work hours and individual characteristics," the authors write.

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