



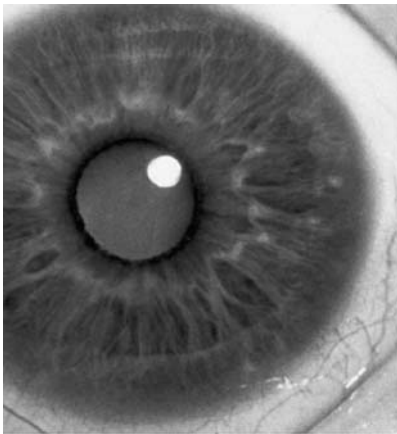
DOES REPETITIVE WORK CAUSE SYMPTOMS OF STRESS?

Pain in the upper limb is common in repetitive work, perhaps because of physical factors but also, potentially, through psychological mechanisms that evoke physiological responses or modify perceptions and disability behaviour. Bonde *et al*¹ have examined the hypothesis that a direct pathway extends from physical stresses through to psychological reaction. They reason that in this case shorter task cycle times and highly repetitive movements should predict the onset of stress related symptoms. In fact, they failed to find this when a cohort of 2846 workers were followed up over three years and repeatedly assessed using a stress inventory. A particular strength of the study was the careful quantification of physical exposures using video recordings. This enabled estimates to be made of cycle times, periods in which repetitive work was performed, and the frequency of wrist movements. The odds ratios in high versus low exposure categories were close to unity (both for prevalent stress symptoms at baseline and for incident symptoms during follow up), and provided no support for the hypothesis being tested.



PHYSICAL ACTIVITIES AND ATRIAL DYSRHYTHMIAS

Endurance sports have been linked with a greater risk of atrial fibrillation, but it seems the same is not true of physical activity at work. Until now the relation has gone unexplored, but Frost *et al*² followed a cohort of 38 400 adults aged 50–65 years in 1993–2001 and linked them to hospital discharge diagnoses of atrial fibrillation or flutter. Cohort members' work was categorised as sedentary, light, or heavy using a self-completed questionnaire about occupational activity in the previous year. Hazard ratios were estimated using a proportional hazards model with adjustment for blood pressure, cholesterol, body mass index, and various other factors. Among the study's strengths were the large number of cases in the cohort (over 400 admissions for atrial dysrhythmia were identified), detailed information on confounders, and complete follow up through nationwide data linkage. Reassuringly, risks did not vary systematically by physical workload.



TEAR FILMS AND CATARACTS

Eye complaints, such as burning, dryness, itchiness, and soreness are common in surveys of the indoor environment. Wolkoff *et al*³ review some of the factors that disrupt the pre-corneal tear film and describe the patho-physiological effects, attempting "to merge approaches from indoor air science, occupational health, and ophthalmology".

Separately, Saha *et al*⁴ have explored the impact of wood burning and coal and cattle dung on cataract development in villagers from western India. Emissions from biomass fuels (e.g. wood, charcoal, animal dung, and crop wastes) are common in poor communities of developing countries. Their effect on risk of serious eye disease has seldom been explored. In this cross-sectional study, after allowing for the strong effect of ageing, cataract was 2–3 times more prevalent among wood and LPG users, and eye irritation twice as common in users of coal or cattle dung.

SEX, SMOKING, AND DIOXINS

Tobacco smoke contains dioxins. Surprisingly, however, levels of serum dioxins have not been found to be increased in smokers. In fact, some studies using breast milk indicate lower levels than in non-smokers. Fierens *et al*⁵ report an unexpected gender difference. Among male smokers, serum dioxin levels were 40% higher than in non-smokers, but among women, smoking was associated with significantly lower levels. The authors suggest that tobacco smoke might potentiate dioxin metabolism in women through an effect of oestrogen mediated signalling pathways on the Ah receptor. Gender may be a confounder in studies that use blood dioxins to assess exposures.



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