

Paper of the month – September 2005

Paper: Occupational sitting time and overweight and obesity in Australian workers.

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Australia, like many other developed and developing societies, is facing a dramatic increase in the prevalence of overweight and obesity. Over 50% of the adult population is classified as overweight or obese (58% male, 42% female, ABS National Health Survey 2001). At the same time data from the 2000 National Physical Activity Survey showed that more than half (54%) of the Australian adult population did not undertake leisure-time physical activity (LTPA) at the levels recommended to achieve health benefits (i.e. 30 minutes of moderate physical activity on most days of the week). The main cause of overweight and obesity at the population level has generally been attributed to energy imbalance – energy intake exceeded expenditure.

Studies of association between physical activity and overweight/obesity have focused on leisure time physical activity levels. Very few studies have looked at both the leisure-time and non-leisure-time (work) sedentary contribution to overweight/obesity. Since leisure-time represents less than a third of the daily time of a fulltime worker, this paper examines the role of occupational sitting time and overweight/obesity in a community random sample of 1579 adults in full-time employment.

The survey was conducted using the telephone interviewing method (CATI Software). The authors employed a 2-stage random community sample of households, then one individual within a household. Information collected includes demographics, series of questions relating to physical activity (Active Australia Survey Instrument), occupational category and sitting time at work.

The main result of this survey is that after adjusting for age and leisure-time activity, there remained a significant association between occupational sitting time and classification of overweight/obesity in men, but not in women. Men in the highest quartile of sitting time (≥ 360 min) were 1.92 times more likely to be classified as overweight/obesity, compared to the lowest quartile (> 45 min). Odds ratios 1.92 (95% CI: 1.17-3.17) and 1.06 (95% CI: 0.62-1.82) for men and women respectively.

The strength of this study is that it was a random sample from the community of adults in full-time employment and of adequate sample size. The cross-sectional nature of the study and all the measures were self-reported, together with a low response rate (44%) were the drawbacks.

The findings presented in this study add another piece of evidence that sedentary at work is also an important risk factor for overweight and obesity, especially among men. This provides a persuasive advocacy for promoting a physically active lifestyle – incidentally or purposefully - among highly sedentary worker. Since overweight/obesity individual has an increased risk to develop chronic diseases, investing in promotion of a physically active worksite could benefits from higher productivity levels and lower absentee rate due to chronic conditions.