Work in brief

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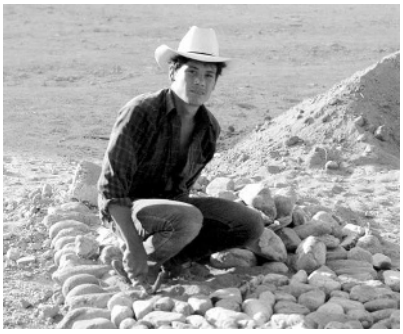

AIR POLLUTION AND DNA DAMAGE

Epidemiological studies suggest a link between exposure to urban air pollution and the development of lung cancer. Findings reported by Tovalin *et al*[1] from a study combining personal exposure measurements with biological assays may shed light on the mechanism of this association. The authors measured exposure to air pollutants and assessed DNA damage by the comet assay in 55 workers from two Mexican cities. Outdoor workers from highly polluted Mexico City had greater DNA damage than indoor workers or workers from a less polluted city, and the level of damage was correlated with exposure to fine particles and ozone. DeMarini and Claxton discuss these findings in an accompanying commentary.[2]

NATO/AF SOUTH

MEDICAL DISABILITY AND PSYCHOLOGICAL SYMPTOMS IN THE ARMED FORCES

The effect of ill health on the ability to work is an important concern for the military services, but has not been studied as extensively as in the civilian context. Rona *et al*[3] report that among 2900 British servicemen surveyed, about 12% were medically restricted from normal duties and these ''downgraded'' personnel reported psychological symptoms 2–3 times more often than personnel on normal duty. Psychological symptoms were especially common among those with chronic physical injuries. The authors warn that their study cannot determine whether psychological distress is a cause or a consequence of medical downgrading and suggest that research into the mechanisms might reduce the frequency and duration of disability.

ASSESSMENT OF EXPOSURE TO TRIHALOMETHANES FROM DRINKING WATER

Researchers concerned with estimating long term exposure to water pollutants may find help in the findings of a careful assessment of lifetime exposure to trihalomethanes (THM) reported by Villanueva *et al*.[4] They assessed exposures due to drinking, bathing, and swimming using data obtained from water companies and study participants. Ingestion was the main route of exposure to THM and exposures from showering and drinking water at home and at work were all correlated. While these results suggest that exposure to water contaminants can be estimated in detail when sufficient data are available, the authors point out that some individuals' exposure could be misclassified if not all routes of exposure were measured.

BACK DISORDERS, GENDER AND SOCIOECONOMIC STATUS

Back disorders appear to have a complex aetiology that involves psychological and social factors in addition to biomechanical stress. Kaila-Kangas *et al*[5] studied hospital admissions in Finland to examine the simultaneous roles of manual work, education, gender, and age in severe back morbidity. Among women and men, hospitalisation for back disorders occurred more frequently at older ages, with lower levels of education, and among manual workers. By contrast, differences between men and women were far smaller after stratifying on other factors.

1 **Tovalin H**, Valverde M, Morandi MT, *et al*. DNA damage in outdoor workers occupationally exposed to environmental air pollutants. *Occup Environ Med* 2006;**63**:230–6.
2 **DeMarini DM**, Claxton LD. Outdoor air pollution and DNA damage. *Occup Environ Med* 2006;**63**:227–8.
3 **Rona RJ**, Hooper R, Greenberg N, *et al*. Medical downgrading, self-perception of health, and psychological symptoms in the British Armed Forces. *Occup Environ Med* 2006;**63**:250–4.
4 **Villanueva CM**, Cantor KP, Grimalt JO, *et al*. Assessment of lifetime exposure to trihalomethanes through different routes. *Occup Environ Med* 2006;**63**:273–7.
5 **Kaila-Kangas L**, Keskimäki I, Notkola V, *et al*. How consistently distributed are the socioeconomic differences in severe back morbidity by age and gender? A population based study of hospitalisation among Finnish employees. *Occup Environ Med* 2006;**63**:278–82.