

Prenatal exposure to DDE, weight and body mass index

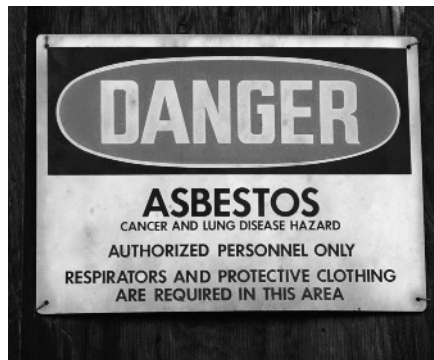
The search for explanations for the worldwide increase in overweight has focused mostly on diet and exercise, but environmental agents may also play a part. It has been hypothesized, for example, that persistent organic pesticides may be environmental "obesogens". Karmaus *et al*¹ investigate this possibility in a study of adult daughters of a cohort of Michigan, USA, women enrolled beginning in 1973. Daughters of the women were examined between 2001 and 2006 and the mothers' levels of polychlorinated biphenyls (PCBs) and dichlorodiphenyl-dichloroethylene (DDE) were extrapolated to estimate prenatal exposure. The authors found that weight and body mass index in the daughters were significantly associated with estimated prenatal exposure to DDE, but not PCBs. The significance of these findings is discussed in a commentary by Porta *et al*².



Mesothelioma mortality among women environmentally exposed to asbestos

Models derived from the experience of workers occupationally exposed to asbestos predict that rates of malignant mesothelioma in these populations continue to increase for decades following exposure. In this issue, Reid *et al* project the future mesothelioma mortality of women who lived in Wittenoom, Australia when crocidolite asbestos was being produced there.³ The women's exposure was primarily environmental, but 40 had already died of mesothelioma as of 2004, and as with asbestos workers, their mortality from the disease is expected to continue increasing for at

least 40 years after their first residence in the town. Although the women's exposures and mesothelioma rates are low relative to asbestos workers, these findings are more evidence that the effects of heavy asbestos use in the 20th Century will be felt well into the 21st.



Wildfires and cardiorespiratory morbidity

A possible consequence of global climate change may be an increase in the occurrence of wildfires: a study by Delfino *et al*⁴ may shed light on the potential health effects. The authors modeled exposures to fine particles and smoke to investigate the relationship between hospital admissions for cardiovascular and respiratory diseases and the occurrence of wildfires in California. During fires, particle levels increased dramatically, and their association with respiratory admissions, particularly for asthma, was stronger than before or after the fires. These associations were



strongest among children and the elderly, but there were only weak associations with cardiovascular admissions.

Elsewhere in the Journal

Other papers in this issue report on reproductive outcomes among female hairdressers⁵, the effect of air pollution on asthma severity in adults⁶ and variation in the association of mortality with sickness absence by occupational grade and gender⁷.



REFERENCES

1. **Karmaus W**, Osuch JR, Eneli I, *et al*. Maternal levels of dichlorodiphenyl-dichloroethylene (DDE) may increase weight and body mass index in adult female offspring. *Occup Environ Med* 2009;**66**:143–9.
2. **Porta M**, Lee D-H, Puigdomènech E. Transgenerational inheritance of environmental obesogens. *Occup Environ Med* 2009;**66**:141–2.
3. **Reid A**, Berry G, Heyworth J, *et al*. Predicted mortality from malignant mesothelioma among women exposed to blue asbestos at Wittenoom, Western Australia. *Occup Environ Med* 2009;**66**:169–74.
4. **Delfino RJ**, Brummel S, Wu J, *et al*. The relationship of respiratory and cardiovascular hospital admissions to the southern California wildfires of 2003. *Occup Environ Med* 2009;**66**:189–97.
5. **Axmon A**, Rylander L. Birth weight and fetal growth in infants born to female hairdressers and their sisters. *Occup Environ Med* 2009;**66**:198–204.
6. **Rage E**, Siroux V, Künzli N, *et al*. Air pollution and asthma severity in adults. *Occup Environ Med* 2009;**66**:182–8.
7. **Lund T**, Kivimäki M, Christensen KB, *et al*. Socio-economic differences in the association between sickness absence and mortality: the prospective DREAM study of Danish private sector employees. *Occup Environ Med* 2009;**66**:150–3.