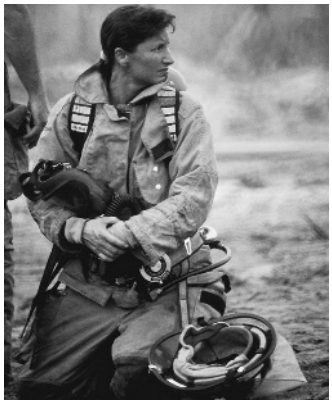
Dana Loomis, *Deputy Editor*

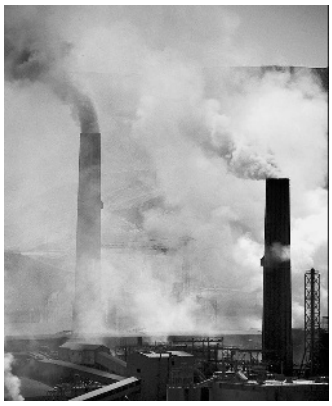
AGRICULTURAL WORK, PESTICIDES, AND ANENCEPHALY

The human health effects of most pesticides are not well defined, despite extensive study. In new research from Mexico, Lacasaña and colleagues[1] investigate the association of anencephaly with agricultural work and exposure to pesticides. The authors identified cases from a population based registry, matched them to controls from the same hospitals, and assessed exposures by questionnaire. The risk of anencephaly was modestly elevated if the mother had ever done farm work, and pronounced increases in risk were seen when the mother worked in agriculture in the weeks around conception (4.6 times) or the father had worked as a pesticide applicator in that interval or before it (about 2 times). The authors suggest their findings are compatible with the hypothesis that exposure to agricultural pesticides may lead to birth defects through paternally or maternally mediated pathways.



LONG TERM EFFECTS OF DISASTERS ON EMERGENCY PERSONNEL

Recent events have drawn attention to the risks to emergency personnel attending disasters. While acute outcomes like the deaths of rescue workers following terrorist attacks are well documented, the chronic effects on survivors may be difficult to identify. Research on police and fire-fighters who assisted at a 1992 air crash in Amsterdam highlights long term concerns, as well as the challenges of studying them. Huizink *et al*[2] followed a cohort of police and fire-fighters exposed to disaster related work following the crash and unexposed colleagues on duty at the same time. After 8.5 years, the two groups had similar objective laboratory findings, but the exposed personnel reported more mental and physical health problems. In an accompanying commentary,[3] Page and Wessely discuss possible explanations for the conflicting findings, including the political and social environment following the disaster.



PARTICULATE AIR POLLUTION AND CARDIAC ARRHYTHMIA

Research on the health effects of air pollution is shifting to the pursuit of mechanisms that might explain the observed associations with mortality and morbidity. Sarnat and colleagues[4] investigated the relationship of cardiac arrhythmia is a sample of 32 older adults living in an industrial area using weekly electrocardiograms conducted over 24 weeks in summer and autumn. The odds of supraventricular ectopy increased with exposure to $PM_{2.5}$, sulphate, and ozone. The effect of $PM_{2.5}$ was stronger among people who had had heart attacks previously, but there was no association with other air pollutants and none involving ventricular ectopy.

ELSEWHERE IN THE JOURNAL

Among the other papers in this month's issue are studies examining the association of lymphoma and pesticides among farmers,[5] a simple intervention for reducing sick leave,[6] cardiovascular effects of job loss,[7] hepatic injury among workers exposed to dimethylacetamide,[8] and factors influencing exposure to styrene oxide in the reinforced plastics industry.[9]

1 **Lacasaña M**, Vázquez-Grameix H, Borja-Aburto VH, *et al*. Maternal and paternal occupational exposure to agricultural work and the risk of anencephaly. *Occup Environ Med* 2006;**63**:649–56.
2 **Huizink AC**, Slottje P, Witteveen AB, *et al*. Long term health complaints following the Amsterdam Air Disaster in police officers and fire-fighters. *Occup Environ Med* 2006;**63**:657–62.
3 **Page LA**, Wessely SC. Health complaints following an air disaster: a ''second disaster''. *Occup Environ Med* 2006;**63**:647–8.
4 **Sarnat SE**, Suh HH, Coull BA, *et al*. Ambient particulate air pollution and cardiac arrhythmia in a panel of older adults in Steubenville, Ohio. *Occup Environ Med* 2006;**63**:700–6.
5 **van Balen E**, Font R, Cavallé N, *et al*. Exposure to non-arsenic pesticides is associated with lymphoma among farmers in Spain. *Occup Environ Med* 2006;**63**:663–8.
6 **Fleten N**, Johnsen R. Reducing sick leave by minimal postal intervention: a randomised, controlled intervention study. *Occup Environ Med* 2006;**63**:676–82.
7 **Gallo WT**, Teng HM, Falba TA, *et al*. The impact of late career job loss on myocardial infarction and stroke: a 10 year follow up using the health and retirement survey. *Occup Environ Med* 2006;**63**:683–7.
8 **Lee C-Y**, Jung S-J, Kim S-A, *et al*. Incidence of dimethylacetamide induced hepatic injury among new employees in a cohort of elastane fibre workers. *Occup Environ Med* 2006;**63**:688–93.
9 **Serdar B**, Tornero-Velez R, Echeverria D, *et al*. Predictors of occupational exposure to styrene and styrene-7,8-oxide in the reinforced plastics industry. *Occup Environ Med* 2006;**63**:707–12.