

Work in brief

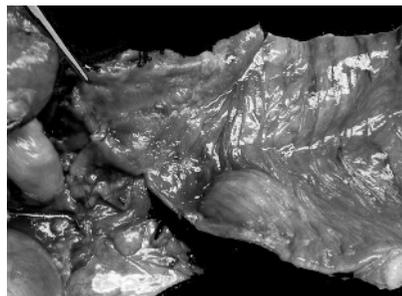


Keith Palmer, Editor



ASSESSING CHILDREN'S EXPOSURE TO TOBACCO SMOKE

Questionnaires are often used to assess children's residential exposure to environmental tobacco smoke (ETS), but with the potential to misclassify through recall and response bias. How much these errors matter is the topic of a paper by Gehring *et al.*¹ They have compared questionnaire responses with measures of nicotine in air and levels of urinary cotinine. The study surveyed 347 German, 335 Dutch and 354 Swedish pre-school and school children. Despite some misclassification, questionnaire responses were found to provide a valid, as well as an inexpensive and convenient estimate of residential ETS. The proportion of homes misclassified, as judged by nicotine and air, ranged from 5.1% to 6.1% across countries, with no indication of differential misclassification in the parents of symptomatic children.



SHIFT WORK AND PEPTIC ULCERS

Shift work is considered to be a risk factor for peptic ulceration, but the role of *Helicobacter pylori* (the main causative agent) has seldom been investigated in workers with this common occupational exposure. Pietroiusti *et al.*² have investigated the question of whether infected subjects who work shifts are more prone to develop peptic ulceration than infected day-time workers. Subjects with persistent dyspepsia were screened first with a urea ¹³C breath test or stool sampling, and those who screened positive were then endoscoped and biopsied. Samples were assessed histologically, cultured and processed for urease testing. The study found that the odds of established duodenal ulcer, after allowing for potential confounding factors, were raised almost four-fold in shift workers as compared with day workers. Gastric ulcer was diagnosed in 3.9% of shift workers and 1.2% of day workers. The authors conclude that shift work increases the ulcerogenic potential of *H pylori* infection, especially in the duodenum. They suggest that treatment of infection in this high risk group could improve workers' health and reduce the economic impact of peptic ulcer disease.



ORGANIC DUSTS AND RESPIRATORY CANCER

Organic dusts are important causes of respiratory tract irritation and allergy, but relatively little is known about their significance as occupational carcinogens. In this issue, Laakkonen *et al.*³ report a study concerning exposure to eight different organic dusts and respiratory cancers in Finland. Over 20 000 incident cases of nasal, laryngeal, or lung cancer, and mesothelioma were identified by record linkage in a follow-up that incorporated 30 million person-years of observation. Exposures to organic dusts were estimated using a job exposure matrix (FINJEM). On the balance of evidence, exposure to organic dusts appeared unlikely to be a major risk factor for respiratory cancer. The authors found suggestive evidence that exposure to grain dust may increase the risk of laryngeal cancer, however, and also "some support" for the hypothesis that exposure to textile and agricultural dusts could decrease the risk of lung cancer.



ELSEWHERE IN THE JOURNAL

This month's journal also features an educational article on gene-environment interactions in asthma,⁴ a survey of physical workload and upper limb disorders,⁵ and a trial of graded activity for low back pain in occupational healthcare.⁶

- 1 Gehring U, Leaderer BP, Heinrich J, *et al.* Comparison of parental reports of smoking and residential air nicotine concentrations in children. *Occup Environ Med* 2006;**63**:766-72.
- 2 Pietroiusti A, Forlini A, Magrini A, *et al.* Shift work increases the frequency of duodenal ulcer in *H pylori* infected workers. *Occup Environ Med* 2006;**63**:773-5.
- 3 Laakkonen A, Kyyrönen P, Kauppinen T, *et al.* Occupational exposure to eight organic dusts and respiratory cancer among Finns. *Occup Environ Med* 2006;**63**:726-33.
- 4 Castro-Giner F, Kauffmann F, de Cid R, *et al.* Gene-environment interactions in asthma. *Occup Environ Med* 2006;**63**:776-86.
- 5 Melchior M, Roquelaure Y, Evanoff B, *et al.* Why are manual workers at high risk of upper limb disorders? The role of physical work factors in a random sample of workers in France (the Pays de la Loire study). *Occup Environ Med* 2006;**63**:754-61.
- 6 Steenstra IA, Anema JR, Bongers PM, *et al.* The effectiveness of graded activity for low back pain in occupational healthcare. *Occup Environ Med* 2006;**63**:718-25.