

open access to endoscopy. This could lead to more satisfied patients, more efficient use of limited endoscopy resources, and happier general practitioners.

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Lead poisoning: an age old problem

Many more workers may be at risk than those currently monitored

Lead is ubiquitous in the environment as a result of its natural occurrence and industrial use.¹ A healthy adult will have an average daily intake of about 100 µg,² most of it from food and water, though inhalation of lead from polluted environments may also be important. About 10-30% of inhaled lead and 10-15% of ingested lead is absorbed,³ and the balance of absorption and excretion normally maintains blood lead concentrations below 1.0 µmol/l. People occupationally exposed to lead may, however, rapidly accumulate toxic concentrations. In Britain there are about 25 000 registered lead workers under medical surveillance, but two recent outbreaks of lead poisoning—one in Britain⁴ and the other in the United States⁵—suggest that many more may be at risk. In both cases those affected were demolition workers who used oxyacetylene torches to cut through metal covered in lead based paints, and the outbreaks came to light only when workers sought medical advice because of their symptoms.

Though the toxic effects of inorganic lead have been known since ancient times⁶—the classic clinical features were reported by physicians in the eighteenth and nineteenth centuries, most notably by Tanquerel des Planches in his treatise of

1839⁷—modern clinical experience in developed countries is limited because industrial legislation has restricted occupational exposure. In addition, lead poisoning is often not recognised because of its non-specific symptoms. The typical abdominal pain may not be colicky, and features such as fatigue, arthralgia, myalgia, headache, irritability, and depression are common.⁸ Furthermore, up to a third of patients volunteer no complaints at examination.^{9,10} Thus a careful history of the patient's work and home environment may save the patient and clinician a series of unsuccessful diagnostic tests. In the outbreak among British demolition workers reported by Pagliuca *et al*⁴ classic basophilic stippling seen on the peripheral blood film¹¹ raised the suspicion of lead poisoning, which was easily confirmed by checking blood lead and erythrocyte zinc protoporphyrin concentrations. Treatment with chelating agents such as sodium calciumedetate, dimercaprol, penicillamine, and the relatively new water soluble agents dimercaptosuccinic acid and dimercaptopropane sulphonate¹² is gratifyingly effective, but prevention is still better than cure.

In Britain exposure to lead at work is strictly controlled by the Health and Safety Executive,¹³ and those working in processes that create lead dust (powder mixing, sanding, grinding, and scraping) or fumes (burning, refining, pouring, smelting) are kept under medical surveillance. Few cases of lead poisoning are notified outside the surveillance scheme.¹⁴ In the United States an estimated 827 650 workers have potential occupational exposure to lead,¹⁵ and extrapolating these figures to Britain suggests that many more British workers may be at risk than are currently monitored. With the demolition and reconstruction industries now thriving in many inner city revitalisation programmes we may see an increase in the number of cases of occupational lead poisoning. World wide it remains the most common occupational poisoning and we should remain ever vigilant.

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