

Asbestos-related lung disorders

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Occupational exposure to asbestos dust has been widespread in all industrialised countries. However, following its peak in the late 1960s and early 1970s, there has been a marked decline in its use. Thus, between 1940 and 1979, an estimated 13.2 million individuals in the USA had potential exposure to asbestos during the course of their work. Even during this period, increasingly strict protective measures were enforced in the workplace in most countries. Accordingly, although large numbers had occupational exposures, these were generally at much lower levels than before World War II. Because of the long period between onset of exposure to asbestos and the development of an asbestos-related lung disorder [the latent period], the numbers of such individuals presenting are likely to continue to rise until 2010-2020. This increase will be in those asbestos-related lung disorders which can arise following brief exposure to asbestos [such as malignant mesothelioma and asbestos-related pleural plaques], whilst conditions with a clear exposure-response relationship [such as asbestosis] will become increasingly uncommon. In Europe alone, an estimated 250,000 men will die of an asbestos-related malignant mesothelioma over the next 35 years.

Although imports of asbestos and new use of asbestos materials are now banned in most industrialised countries, workers are likely to continue to come into contact with 'in-place' materials. The doctor should therefore be alert to the appearances of asbestos-related lung disorders from novel and less traditional sources of exposures, be they in the home or in the work environment. Thus, traditionally, the building industry, shipbuilding and repair, asbestos cement production, asbestos mining and milling, locomotive construction and repair, coal-fired power stations, and other engineering operations contributed the largest number of cases of asbestos-related lung disorders. Trends for each industry group have changed over the last 10 years, with more cases [especially of malignant mesothelioma] in asbestos-user industries such as the building industry, and in trades such as plumbers, carpenters, machinists and car mechanics.

Whilst little has changed over the last 10 years as regards the clinical features of asbestos-related lung disorders, thoracic computed tomography [CT] scanning and high-resolution CT scanning [HRCT] have revolutionised the evaluation of asbestos-exposed individuals. This technique has not only allowed better clinical differentiation between the various asbestos-related lung disorders, but also earlier detection of the same [especially asbestosis], at a time when the individual has no abnormal clinical signs, or abnormalities on what were the conventional tests in evaluating these disorders [eg chest X-ray and lung function studies].