

Asbestos Risks: Occupational and Para-Occupational Health Status in Pakistan

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Abridged slide presentation

Abstract

Due to the diverse use of asbestos, sources for environmental, occupational and para-occupational exposure to asbestos dust are common phenomena of life today, particularly in Asia. In Pakistan there are thousands of sources responsible for the dissemination of respirable asbestos dust, including mining, scrapping of old ships, milling, sorting, crushing, grinding, and manufacturing or handling various products according to their functional characteristics. Exposure to airborne asbestos fibers remains an area of great concern in the field of occupational and para-occupational lung disease. Despite extensive studies and the known health effects associated with asbestos, this deadly fiber is still unrecognized and uncontrolled by the Environmental Protection Agencies and Health Departments of the Government of Pakistan.

In this paper the authors will present the qualitative and quantitative health hazards and degree of risk posed by airborne asbestos dust to occupational and para-occupational groups in Pakistan. Various types of samples were collected and analyzed using polarized light microscopy, scanning electron microscopy and X-ray diffraction techniques to confirm the type, concentration and size of airborne asbestos fibers present both indoors and in the ambient air in different locations in Pakistan. The analytical data reveal that the concentration of asbestos fibers is hundreds of times greater than the permissible exposure limit in all samples. Apart from that, hundreds of asbestos miners, industrial workers and women and children living in the vicinities of asbestos facilities were interviewed, and follow-up studies were also conducted to confirm the relationship of the health risks to asbestos. It was found that almost 90% of the patients suffering from various lung diseases were exposed to airborne asbestos fiber somewhere, sometime in their life.