

289 Occupational and Environmental Lung Disease

John R. Balmes

Occupational and environmental lung diseases are difficult to distinguish from those of nonenvironmental origin. Virtually all major categories of pulmonary disease can be caused by environmental agents, and environmentally related disease usually presents clinically in a manner indistinguishable from that of disease not caused by such agents. In addition, the etiology of many diseases may be multifactorial; occupational and environmental factors may interact with other factors (such as smoking and genetic risk). It is often only after a careful exposure history is taken that the underlying workplace or general environmental exposure is uncovered.

Why is knowledge of occupational or environmental etiology so important? Patient management and prognosis are affected significantly by such knowledge. For example, patients with occupational asthma or hypersensitivity pneumonitis often cannot be managed adequately without cessation of exposure to the offending agent. Establishment of cause may have significant legal and financial implications for a patient who no longer can work in his or her usual job. Other exposed people may be identified as having the disease or prevented from getting it. In addition, new associations between exposure and disease may be identified (e.g., nylon flock worker's lung disease and diacetyl-induced bronchiolitis obliterans).

Although the exact proportion of lung disease due to occupational and environmental factors is unknown, a large number of individuals are at risk. For example, 15–20% of the burden of adult asthma and chronic obstructive pulmonary disease (COPD) has been estimated to be due to occupational factors.

■ HISTORY AND EXPOSURE ASSESSMENT