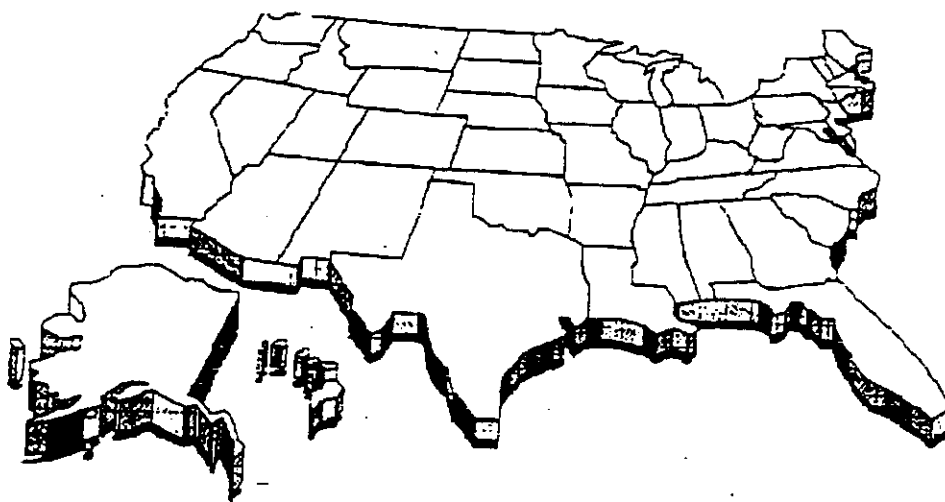


**NIOSH**

**Atlas of Respiratory Disease Mortality,  
United States: 1982-1993**



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**National Institute for Occupational Safety and Health**

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### Pleural Malignancy (ICD-9 Code 163)

Malignant neoplasm of pleura (ICD-9 code 163) is a disease category that might be expected to include pleural malignant mesothelioma, a tumor type that is strongly associated with asbestos exposure. Although malignant mesothelioma is the most common primary malignant neoplasm of the pleura, in practice this ICD-9 code 163 is by no means entirely specific or sensitive with respect to identifying malignant mesothelioma deaths [Davis et al. 1992].

Amphibole fiber types, especially crocidolite, appear to be the most potent inducers of malignant mesothelioma. However, chrysotile exposure can also cause this disease [Ross and McDonald 1995]. Therefore, all occupational groups exposed to asbestos are at risk of developing asbestos-related pleural malignancy. Apart from crocidolite miners and millers, occupations with high risk include shipyard workers, insulation workers, and workers employed in construction trades. Approximately 85 percent of individuals with malignant mesothelioma have a history of asbestos exposure [Rom 1992].

Malignant mesothelioma is also caused by nonoccupational environmental exposure to asbestos and related fibers. High risk of mesothelioma has been documented among family members of asbestos workers [Anderson et al. 1979] and among the general population living in a region of Turkey where nonoccupational exposures to zeolite (erionite) fibers are prevalent [Wakeman and Lockey 1994].

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