

MEDICAL QUESTIONS AND ANSWERS ON ASBESTOS
(JAMA, NOVEMBER 9, 1984)

- Q. Does Asbestosis develop in all who are heavily exposed for extended periods?
- A. No. Humans differ markedly in their response to asbestos fibers. (The same can be said of most other substances.) Immunology may be a factor.

Q. What is the treatment of Asbestosis?

- A. There is no treatment other than symptomatic. Prevention is the only way to control the disease.

Q. Is it advisable to change jobs when evidence of Asbestosis develops?

- A. Further exposure should be eliminated.

Q. What changes in the pleura are observed after exposure?

- A. Asbestos produces isolated lesions in the pleura, including effusion, fibrosis, plaques, and mesothelioma.

Pleural plaques are localized fibrotic lesions that originate just below the surface of the parietal pleura. Calcification is often found. Pleural plaques seldom cause lesions.

Pleural mesothelioma invariably produces pain, usually before other symptoms appear. Fibrosis is often not present. Pleural plaques do not develop into mesothelioma (not a premalignant lesion).

Q. Can mesotheliomas develop after either transient or casual exposure to asbestos?

- A. Mesotheliomas are rare.

Reported in household contact - people with limited exposure

Not associated with smoking

Reported 11 - 16% of cases - no history of exposure

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Q. Does cigarette smoking influence the development of asbestos-related diseases?

A. There is no evidence that cigarette smoking predisposes a person to pulmonary fibrosis or mesothelioma. However, smoking can decrease pulmonary function and compromise overall health.

The synergistic effect of cigarette smoke and asbestos exposure greatly increases the risk of bronchogenic carcinoma.

Lung cancer rate for non-smoking asbestos workers is five times the rate of controls. The asbestos worker who smokes is 53 times more likely to develop bronchogenic carcinoma.

Q. What is the likelihood that bronchogenic carcinoma will develop in a patient with Asbestosis?

A. There is no specific relationship.

Q. What risks are associated with drinking water containing asbestos?

A. There is no evidence to indicate that ingested fibers cause disease in man.

Q. Do the commonly used asbestos substitutes cause diseases?

A. To date, there is no reason to believe fibers of glass or mineral wool cause chronic pulmonary disease.

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Q. What are the major pathologic responses to asbestos exposure?

A. Pulmonary fibrosis (Asbestosis)

Malignant mesotheliomas

Bronchogenic carcinoma

Other malignancies

Pleural plaques

Q. What are the clinical features of Asbestosis?

A. Early stages asymptomatic

As it progresses - cough, shortness of breath, fatigue, weight loss, chest pain

Advanced stages - restriction of chest expansion, clubbing and blueness of fingers

Chest x-ray - fibrosis (strands) particularly in bases

Pulmonary function - primarily restrictive

Poor gas exchanges

Q. What exposure is required for development of Asbestosis?

A. Brief exposure to a high concentration may occasionally result in Asbestosis; however, generally one must inhale relatively large amounts for an extended period.

Lesions are not usually apparent for at least five years after exposure.

Casual and sporadic exposures do not generally produce fibrosis.

Q. Is there a relation between fiber size and development of disease?

A. Long fibers (8 micrometers or more) play an important role. Most fibers (95%) are relatively short. Current techniques ignore fibers less than 5 micrometers.

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