

ASBESTOS TEXTILE INSTITUTION  
Air Hygiene Committee  
September 9, 1953  
Essex House



In Attendance: R. Smith, B. W. Luttenberger, E. T. Johnson, T. G. Schmidt, H. L. Jackson, D. H. Holmes, J. W. Weber, J. G. Schcepf, G. Kovack, J. D. Beatty

Guests: Dr. O. A. Samder, Dr. M. White, Dr. F. A. Theodos, Dr. P. Cartier, Dr. H. W. Hetherington, Dr. E. S. Myers

Following the format of the previous meeting, the Doctors met in separate session and continued the deliberations previously outlined

1. A review of the x-rays presented by each of the participating Doctors established that x-ray classifications of Negative, A-2, moderately advanced; A-3, far advanced, were rather uniformly identified. There was considerable variance of opinion, however, in the borderline classifications of P-2, linear exaggeration and A-1, early asbestosis. It was the conclusion that this difference was a matter of individual interpretation and one which could not easily be resolved.

The consensus was that it was impossible to make a diagnosis of asbestosis on x-ray alone since similar shadows can be reproduced by other disease processes. The employment history showing adequate periods of exposure (a minimum of 5 years in the textile industry, 10 years in the mining industry) and a medical history revealing clinical symptoms are necessary for accurate diagnosis.

2. Diagnosis is complicated in obese persons. Obesity tends to compress the lung and produce an x-ray appearance of asbestosis. Overweight often times is accompanied by heart complications not at all related to the asbestos exposure. It was the consensus that asbestosis should not be considered as an aggravating factor to heart conditions due to overweight.
3. As a result of discussion on the relationship of off-the-job behavior to disease production, Dr. White and Dr. Theodos agreed to study their plant populations to evaluate the problem. The results of their investigation will be presented to the Doctors at a future meeting.
4. Concerning the diagnosis of a disabling (compensable) asbestosis, the following factors were enumerated:
  - a. Adequate exposure (5 or more years in visually dusty atmospheres).
  - b. Typical x-ray patterns and indication of emphysema.

- c. Symptoms such as shortness of breath, dry cough, easy fatigue on exertion is moderately advanced asbestosis and easy fatigue without exertion in far advanced asbestosis. Cyanosis may be present if right heart strain is evident.
  - d. Decreased chest expansion accompanied by moist crackling rales.
  - e. Lung function studies indicating a marked reduction in timed vital capacity and blood arterial oxygen before and after exercise.
  - f. Lung biopsy (if feasible) in questionable cases.
5. While there is no cure for the asbestotic fibrosis, symptomatic relief and improved ventilation is frequently obtained through the use of intermittent positive breathing exercises using oxygen and bronchodilators. Although the improvement in ventilation is not always maintained, repeat treatments continue to provide relief.

In cases involving right heart strain and cyanosis, digitalis is indicated.

6. In reviewing the problem of job transfer as a means of prevention, the Doctors recommended the following criteria:
- a. If x-ray diagnosis is established for persons under 40, transfer to a job of less exposure should be made. This assumes, of course, that study has determined that the individual's present job environment contains an asbestos exposure.
  - b. If progression is seen on serial films, job transfer should be made without regard to the individual's age. Again, the present job should be evaluated in terms of exposure potential.
7. Recommendation was made that basic research be considered in the areas of -
- a. evaluation of different types of fibres in disease production,
  - b. a relationship of heart function to asbestosis. Dr. Theodos will outline in more detail a proposal for this investigation.

The Air Hygiene Committee reviewed the status of the proposals for evaluation of instruments and methods in measuring atmospheric contamination.

1. A proposed program of sample analysis for the determination of fibre diameters encountered in airborne asbestos fibres was submitted to the Travellers Engineering Laboratory in Hartford. While there has been verbal indication that they would undertake this work for us, official agreement has not been obtained pending the working out of some technical difficulties. When approval is obtained, the member companies will be advised in detail of sampling procedures, sampling location identification and shipping instructions. All member companies indicated that they would participate in forwarding samples for this analytical research.
2. Question was raised concerning the identification and removal of organic fibres from the samples submitted. While this item would not affect the sample taking, the matter will be discussed with the Laboratory to insure the counting of asbestos fibres only.
3. It had been determined that the U. S. Public Health Service was engaged in an evaluation of several types of air sampling apparatus. Although their original research program had not included the use of asbestos as an atmospheric contaminator, they appeared receptive to the idea and official approval is expected shortly. The instruments being used in this study include all five of those which our Committee previously had listed as worthy of study.
4. It was the consensus that every effort should be made to expedite items 2 and 3 in order that a yardstick might be established with which to evaluate the effectiveness of engineering control and provide a basis for job study necessary for medical control (item 6, Doctors discussion).
5. Mr. E. T. Johnson reviewed the control methods at the twisters. Dust counts (in terms of dust particles, not fibres) indicate excellent control.
6. It was agreed that at our next meeting, each member would present a review of their companies' experience (successful or unsuccessful) with dust collector equipment. Capacities, operational methods, efficiencies and maintenance costs would be compared.

Following a recapitulation of the separate Doctors and Air Hygiene Committee discussions, the combined group discussed and concurred that a statistical review be made of the current status of asbestosis in the industry. Accordingly, each Doctor will be requested to submit a list of years of service and x-ray classification for each employee (without name) for each asbestos textile plant. This data will be summarized to reflect the trends, if any, in exposure years to pulmonary involvement and may well serve as a base line against which to compare future progress in the control of environmental exposure and disease incidence.

H. M. Jackson