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This effect was evident also in a subgroup of the men studied who reported no signs of mild bronchitic symptoms (cough and phlegm for at least three months in a year). Among men with pneumoconiosis there was no evidence of a reduction of $FEV_{1.0}$ in excess of that attributable to their dust exposures, smoking habits, age and physique. Increasing severity of bronchitic symptoms was associated with a loss in $FEV_{1.0}$ greater than that expected from the effects of dust exposure as measured, smoking, age, and physique. Possible explanations for this phenomenon are discussed. It is suggested that the results may indicate that once early bronchitic symptoms are present the disease may progress and ventilatory capacity may deteriorate independently of factors initiating the disease process.

--Authors' abst.

- 1367/73 Asbestos in the Work Place and the Community. M.L. Newhouse. *Ann. Occ. Hyg.* 16: 97-102, Aug. 1973. 17 refs.

The fibrogenic properties of asbestos dust were detected early, later knowledge accumulated about the carcinogenic properties of the mineral and a hazard of bronchial carcinoma and mesothelial tumours was recognised. Mortality studies have measured the effect of exposure on working populations. Recent analysis of data from a cohort of asbestos factory workers shows that even with low to moderate exposure there is excess mortality from cancer of the lung and pleura and other cancers, after more than 25 years' observation. The mesothelioma rate increases both with severity and length of exposure. Occurrence of these and other tumours appears to be dose-related. The markers of a community effect of asbestos dust in the environment are the occurrence of mesothelial tumours in neighbourhoods of a source of asbestos dust, and the presence of asbestos bodies or calcified asbestos pleural plaques in the general population. Conditions giving rise to neighbourhood mesothelial tumours may not now occur, but the importance of adequate control in all countries where asbestos is mined or manufactured is stressed.

--Author's abst.

- 1368/73 Histochemical Study of Asbestos Fibre Coating in Experimental Carrageenin Granulomas. M. Governa and C. Rosanda Vadala. *Brit. J. Ind. Med.* 30: 248-252, July 1973. 12 refs.

To study the composition of asbestos body coating, asbestos particles present in experimental carrageenin granulomas were tested histochemically for mucopolysaccharides, ferric and ferrous iron, haemoglobin, and haematoidin. The stains were applied on microscopical sections both untreated and treated with iron-extracting solutions and/or enzymes. The results indicate that asbestos is rapidly coated with haematoidin, ferric iron, and hyaluronic acid.

--Authors' abst.

- 1369/73 Effects of Asbestos or Quartz Particles on the Mixed Cultures of Macrophage and 3T6 Cell. K. Kosh and H. Sakabe. *Ind. Health* 10: 125-127, Dec. 1972. 1 ref.

Study of pathogenesis of pneumoconiosis at cellular level has been hindered by the lack of a suitable model system. It may be assumed that the first reaction of cells to inhaled dust particles in alveolar cavity is phagocytosis by alveolar macrophages. The way in which this is followed by fibrosis is obscure. The cytotoxic effect of silica on macrophages is documented, and may well lead to the release of factors responsible for stimulation in fibrosis. There is a correlation between the toxicity of various silica particles to macrophages in culture and the capacity of these particles to stimulate fibrosis in vivo, but this relation is not clear in other particulate matter. In this report the authors have tried to observe the effects of various dusts on the model system at cellular level.

--Cond. from text

- 1370/73 Improved Techniques of Identification and Determination of Airborne Asbestos. L. Bartosiewicz. *Am. Ind. Hyg. Assn. J.* 34: 252-259, June 1973. 6 refs.

Collection, identification and data analyzing techniques are presented for airborne mineral fibers. The limitations of the techniques are discussed. It is shown that the adaption of a plenum 1 3/4 inches long for sample collection is important since it leads to a much more uniform particle collection and distribution. Separation of the asbestos particles from other solid airborne pollutants with the refractive index liquid method is shown to be accurate, convenient and useful in distinguishing asbestos from other fibrous material. For analysis of this type the image analyzing microscope is a very valuable tool.

--Author's abst.

- 1371/73 A Radiographic Survey of Monumental Masonry in Aberdeen. T.A.L. Davies, et al. *Brit. J. Ind. Med.* 30: 227-231, July 1973. 12 refs.

A survey of radiographic appearances of the lungs of monumental masonry workers in Aberdeen was carried out to determine the present prevalence of abnormalities and to serve as a standard for future comparison in view of changes in methods of working. No major change could be detected in the status of these workers in Aberdeen over the past 20 years but the different methods of survey used by Mair in 1951 and by the present study did not allow of strict comparison. Chest radiographs were reported on by three readers independently using the National Coal Board elaboration of the ILO classification and a score was given.