

Anthraco-Silicosis or Miners Asthma is an occupational disease resulting from breathing air containing silica dust particles in the mining and preparation of anthracite coal. In final stages of the disease, tuberculosis or other lung diseases attack the weakened lungs. There are approximately 150,000 anthracite miners in Pennsylvania.

A thorough medical examination of 2,711 anthracite workers by the U. S. Public Health Service in 1933 furnished the best information yet available on this disease. Three mines were selected, one each from the northern, western and southern anthracite fields. The mines chosen included all methods of mining—old, modern and semi-modern. Mine operators and United Mine Workers of America cooperated in an effort to find the facts.

Of all the workers examined, 23 per cent were found to have anthraco-silicosis to some extent. The natural health of these men is shown by the fact that new employees showed a lower tuberculosis rate than the average for the same group of men in the United States.

But closer examination of the cases disclosed that the amount of silica dust in the air breathed determined the degree of danger. Anthracite mining did not mean that anthraco-silicosis was inevitable. The kind of work performed and the mining methods used also controlled the degree of danger.

As disclosed by the study, air with less than 5 million particles of dust per cubic foot and a silica content of less than 5 per cent was not dangerous. However, as the dust content increased to over 300 million particles per cubic foot, as many as 89 per cent contracted anthraco-silicosis.

Comparison of the different methods of mining disclosed clearly that the dust danger was very greatly reduced by wet mining methods in drilling, loading and cleaning. Those making the survey came to the conclusion that although better ventilation and mechanical loading would aid, the greatest possible use of wet mining would be the most important single preventative of anthraco-silicosis.

