

and more areas of the lung are involved and the patient becomes rapidly disabled. He is very short of breath, loses weight and appetite and may develop cough, hemorrhage and fever. Usually however when such signs or symptoms occur, it means tuberculosis has been established and the prognosis is not good. People who die from this condition do so because of the tuberculous infection rather than the silicotic fibrosis. In the majority of cases of uncomplicated silicosis it is unlikely that any actual disability will result. One must always be prepared to expect the possibility of infection however so that such individuals should be advised to avoid exposure or contact with people known to have tuberculosis.

One should remember that silicosis cannot occur unless there has been adequate exposure to free or uncombined silicon dioxide over long periods of time (2 - 25 years; average 10 years). The tendency of physicians to diagnose silicosis simply on a nodular roentgenographic pattern and the fact that a man works in a foundry where there may be dust in the air, is deplorable. Many doctors, even some of our industrial physicians, are unaware of the tremendous improvement in working conditions in plants in recent years. Mr. Weber will describe this to you in greater detail - but it is an important fact and one of which you should all be aware. It is one reason for encouraging visits to our plants by physicians so that they can be informed of these developments.

Silicosis varies in some of its aspects in different industries and in different locations. For example, the disease contracted by the iron miners differs from that seen in the coal miner and may not be the same in some respects as that found among quarry men, pottery employees etc. - nor is it always confined to men. Women develop the condition in certain types of work such as that in the pottery industry.

The anthracosilicosis of the coal miner may be more disabling. This is characterized by areas of "focal emphysema" in the lungs which make it more of a problem. The exact cause of the pathological reaction has not yet been determined but it has been shown that symptoms and signs may be present out of all proportion to the amount of involvement seen in the chest radiograph. We have found such a condition developing in a foundry molder who was exposed to considerable amounts of sea coal dust during his molding operations. He developed severe disability and died within a few years time.

So much for silicosis. I could go on at great length about this well known disease but time will not permit. I must point out however that it is frequently mistaken for other conditions because its nodular x-ray appearance is closely simulated by that produced by certain entirely unrelated conditions.

No new cases of silicosis have occurred in Brake Shoe since the advent of the Medical Department in 1941 and our program of improved working conditions. As a result we have a better class of workmen, lower compensation rates and fewer claims for disability because of silicosis.

This brings to the consideration of siderosis, which is perhaps the biggest industrial health problem we have at the present time. Although non-disabling, this condition so closely resembles silicosis in the chest roentgenogram that it is very difficult to distinguish it from that occupational disease. Here one must know the extent of the exposure