

Perle's stain (Prussian blue reaction), and probably composed of ferritin or ferritin-like material. It may cover the structure completely, masking the central fiber from direct view, or may be incomplete in the central portion of the shaft or in the interstic of the body, revealing an expanse of naked fiber.

There is no doubt that the "asbestos bodies" formed in the lungs of the asbestos workers contain asbestos, and it is probable that some are contained in those found in the lungs of the general population.

Evidence that persons other than those working directly with asbestos minerals are being exposed to asbestos is of several types. Asbestos fibers can be demonstrated in the lungs of person not occupationally exposed. In a few geographic areas, pathologic changes regarded as representing a reaction to asbestos such as pleural calcification have been found in populations with no history of occupational exposure. Asbestos fibers have been demonstrated in ambient air.

Structures that appear to be fibers coated with a pigmented material were described in lung tissue as early as 1907. These structures were actually fibers coated with hemosiderin. Because those who work with asbestos exhibit them a few months after start work, it was recognized that they were evidence of exposure, but not of asbestosis. The term "asbestos body" came to be the preferred designation.

As long as the coated fibers were found in persons known to have been occupationally exposed to asbestos, the identity of the central fiber was seldom questioned, although from time to time similar objects were found in persons with no known exposure to asbestos.

Identification of the core fibers has proved to be a formidable technical task. Without fiber-by-fiber analysis, all that can be said is that coated fibers resembling those in asbestos workers are present in most persons in our urban centers. Stripping the coating and analyzing the cores by various techniques can sometimes demonstrate that the cores are asbestos, but the process is tedious and often inconclusive. A more appropriate term is "ferruginous body". Attention is now being directed toward study, not of the ferruginous bodies alone, but of the total fiber content of the lungs, whether such fibers are coated or uncoated.

Evidence is strong that most human lungs harbor thousands or millions of fibers. Some of these are chrysotile asbestos, and other types of asbestos minerals are probably there. In most persons not occupationally exposed to asbestos, the numbers of fibers are relatively small, compared with the numbers found in the occupationally exposed. The systematic application of quantitative techniques,