and its complications and for investigation of the biological effects of the fiber on the cellular level. In addition, the diagnosis of the potential role of asbestos in a disease process usually depends upon such demonstration. Indeed, the observation of these fibers is uniquely facilitated by the fact that, as a result of tissue reaction, many of the fibers become coated with an unusual iron-rich gel of characteristic appearance and behavior, readily recognized, only infrequently mimicked, and, for practical purposes, pathognomic for the presence of asbestos. At first termed "curious bodies" or "brown bodies" they were soon named "asbestosis bodies" by Stewart and Haddow[2] and "asbestos bodies" by Gloyne.[3]

It was the presence of these unusual, specific, coated fibers — asbestos bodies — that called attention to the nature of the first cases of asbestosis. When Montague Murray[4] described the histological findings in the lungs of a man who died in 1900 after having worked 14 years in an asbestos textile plant, he commented on the presence of these particles; although no illustration of them was recorded at that time, re-examination of the tissues of this original case by E. L. Middleton confirmed their presence.[5] Similarly, Fahr published no illustrations of the "peculiar crystals" seen in the lungs of a woman asbestos worker, reported by him in 1914,[6] but he referred to their appearance as similar to the crystals described by Marchand in 1906,[7] when the latter described the unusual histological findings in the lungs of a young man working in a dye factory and a woman, the wife of an oven-placer. Review of the illustrations in Marchand's paper, leaves no doubt that these were asbestos bodies.

When the first "contemporary" case of asbestosis was reported in 1924[8,9] the unusual bodies were also rediscovered, with Stuart McDonald[10] calling attention to them on pathological study of Cooke's case. Careful investigation by McDonald led him to believe that they were not of vegetable or animal origin although they were briefly so considered by Cooke. Gloyne clarified their nature when he dissolved the bodies in concentrated sulfuric acid, demonstrating a minute asbestos fiber as the central core.[3] Gloyne summarized the early studies on the identification of asbestos bodies.[11]

It was soon found that fibers might well be present unaltered, simultaneously with the changed, coated, asbestos body. Shuster[12] reported extensive fibrosis in a dog that lived in an asbestos factory, with many asbestos fibers present, but with no asbestos bodies. Experimental studies soon showed that among various species, there was a different pulmonary response in the production of asbestos bodies.[13] Thus, as with the dog, many asbestos fibers but very few asbestos bodies were seen in lungs of rats caught in asbestos factories.[14] In human tissue, Heger[15] found variations not only in the number of asbestos fibers and asbestos bodies in different cases but also marked variation in the percentage of each.