

INTRODUCTION

Several investigations have indicated that significant asbestos exposure may occur during brake maintenance and repair work (Nicholson, 1979; Rohl, et al. 1976; Hickish and Knight, 1970). Limited studies have suggested that exposure may be associated with the risk of asbestos-induced disease including both pulmonary asbestosis and asbestos-associated cancer (Lorimer et al, 1976; Greenberg and Lloyd-Davies, 1974). These limited reports do not, however, indicate whether the risk of asbestos-associated disease is common or uncommon. The question is of importance because over one million workers are regularly or intermittently engaged in vehicle maintenance work in the United States at this time (Bureau of Labor Statistics, 1979). Additionally, a large number of other workers were formally engaged in such work in the past and now are either retired or employed otherwise. It is estimated that 4,940,000 individuals are currently alive with such current or past employment (Nicholson et al., 1982).

There are several sources of asbestos exposure to garage mechanics and automobile repairmen. First, of course, is that the asbestos exposure from the debris of brake or clutch lining wear, particularly when the brake or clutch housing are cleaned using a high pressure air hose. Second, garage mechanics may be at risk from exposures during the use of autobody filler and, finally, asbestos dust can be disseminated during mixing and application of undercoating materials each of which has contained the fiber in previous years.

In order to determine the extent of the asbestos-related risk from garage maintenance work, NIOSH has contracted with the Environmental Sciences Laboratory to conduct a clinical examination of garage mechanics. The examination was to focus specifically upon those manifestations of asbestos disease, such as X-ray abnormalities and pulmonary function deficits, that would elucidate the possible effects from exposure to asbestos in garage employment.