

were seen in various combinations (TABLE 6). Pleural change as the only abnormality on the chest x-ray was seen in 18% of the household contacts. This is compared to 9% with no pleural changes and only parenchymal small opacities present. In 8% of household contacts, both small opacities and a pleural abnormality were present. Among the controls, small opacities as the only abnormality present was the most prevalent (3%). Only one of the controls (0.3%) had both small opacities and a pleural abnormality present.

The distribution by profusion of combined small opacities (graded according to the ILO U/C Classification) among the household contacts and controls is shown in TABLE 7. Only two of the household contacts (0.3%) had a category 2 profusion of combined small opacities. Forty-seven of the 114 films with small opacities were in the lowest category, 1/0. Eight out of the ten control films were coded as having combined small opacities in the lowest category.

Pleural thickening and pleural calcification were seen in all extent categories (TABLES 8 and 9). As with the parenchymal abnormalities, the pleural abnormalities in household contacts tended to be classified in the lower ILO U/C categories. However, 19 (3%) of household contacts had extensive pleural thickening and 10 (2%) had extensive pleural calcification present.

TABLE 5
PREVALENCE OF ASBESTOS-ASSOCIATED RADIOGRAPHIC ABNORMALITIES AMONG
HOUSEHOLD CONTACTS OF AMOSITE ASBESTOS WORKERS AND CONTROLS

Group	Total Examined	Small Irregular Opacities	Pleural Thickening	Pleural Calcification	Pleural Plaques	One or more Abnormalities
Household contacts	678	114 (17%)*	128 (19%)*	54 (8%)*	57 (8%)*	239 (35%)*
Controls	325	10 (3%)	4 (1%)	0	2 (0.6%)	15 (5%)

*Prevalence of all types of abnormalities significantly higher in the household contacts than the controls, $p < .001$.

The possible effect of increasing duration of exposure as an index of increasing dose was also examined. Among occupational groups, duration of exposure correlates well with increasing prevalence of radiographic abnormalities. The prevalence of radiographic abnormalities among the household contacts by duration of exposure is presented in TABLE 10. All abnormalities show an increase in prevalence as duration of exposure increases. The category of combined small opacities did not show a statistically significant increase in prevalence with duration of exposure although a trend is apparent. For pleural thickening, not only did the prevalence of the abnormality increase with duration of exposure but also the extent of disease (TABLE 8). However, this did not seem to be the case for pleural calcification (TABLE 9).

Under occupational exposure conditions, for a majority of workers, a period of clinical latency of approximately 20 years from onset of exposure to appearance of radiographically detectable asbestos-associated disease has been well documented.⁷ All household contacts had exceeded the 20 year from onset point at the time of their initial examination. Individuals first exposed between 1941 and 1946 had the highest prevalence of abnormalities (TABLE 11). The group exposed between 1950 and 1954 had the lowest prevalence of abnormalities (22%). The increasing prevalence of radiographic abnormality with longer time since onset of first exposure is most evident