

HEALTH & SAFETY REPORT

From the Director of Health and Safety
Lead Industries Association, Inc.
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Look Ahead with Lead

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To Members of the Lead Industries Association, Inc.:

SIGNIFICANT AMERICAN INVESTIGATION OF CHILDHOOD PLUMBISM

In the July 1963 issue of the American Medical Association's Archives of Environmental Health there is an article entitled "Renal Function Subsequent to Childhood Plumbism". This consists of a report of an investigation by Dr. Lloyd B. Tepper formerly with the Harvard School of Public Health and now with the U. S. Atomic Energy Commission. Dr. Tepper's investigation consisted of a follow-up of 165 subjects who had been diagnosed as having plumbism as children in the Boston area twenty to thirty-five years ago. The purpose of his investigation was to inquire into the incidence of renal (kidney) disease among this group of former lead cases. Of the group of 165 subjects, Dr. Tepper succeeded in tracing 139 and of these only one is reported to have died of chronic renal disease, and that could not be shown as connected with plumbism. Detailed and thorough screening tests of renal function were conducted on 42 of the 139 subjects traced and no evidence of renal impairment was found.

As those of us who are familiar with the earlier Australian work of Hye, Henderson et al, performed in Queensland, will recognize, Dr. Tepper's work indicates the exact opposite of that which was reported from Australia. For instance, Henderson reported that in a follow-up of 401 children admitted to a Queensland Hospital with a diagnosis of plumbism, 165 died under the age of forty, and of the 165 deaths, 101 were attributed to nephritis or renal sclerosis. Hye, in an earlier work, had reported an even higher percentage of deaths from kidney disease among Queensland cases of similar history.

Therefore Tepper's work becomes, to our knowledge, the first report in the literature to contravene completely the Australian work. It is true, of course, that the Australian articles have not been corroborated elsewhere in the world literature but now we have a report of a follow-up study which is similar in its choice of subjects to those in Australia, and which is at least as thorough and careful in its methodology and workmanship as that of its predecessors.

Since there has been a belief that lead results in kidney damage and this belief has been held by many members of the medical profession it is well for us to have this documented refutation of such beliefs. In this respect, may I refer you to the article mentioned in our last previous Bulletin No. 151 in which Dr. Smith also reports on a follow-up of children's lead cases and in which no clinical abnormalities were found in uncomplicated poisonings after five years.

DGF:md

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