

February 3, 1975

Ms. Debbe Robinson
Assistant Coordinator
Onondaga County Health Department
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Syracuse, New York 13201

Dear Ms. Robinson:

The question which you raise in your letter of January 30 is one of considerable interest, obviously, but I cannot give you any real information on it. One can speculate on the subject, and I must admit that I have certain impressions on it, but I have nothing worthy of recounting.

When encephalopathy develops, the subject is most seriously ill and is likely to die. Presumably, some instances of brain damage of less serious consequence (non fatal cases) occur and permit survival. Babies and somewhat older children suffer with the greatest frequency from this lesion and one may doubt that a youngster seriously affected in this way, yet capable of surviving, is fully recovered. It is extremely difficult, however, to appraise this situation, after the fact, and, therefore, one cannot be entirely certain as to the degree, if any, of the cerebral impairment, due to lead.

In the ordinary present-day case of occupational lead poisoning (for the first time) in the adult, the absorption of large quantities of lead is unlikely, and the absorption of lead into the brain is negligible; there is little or no reason to suspect the occurrence of irreversible brain damage and irreversible changes in intellectual competence. I do not mean to say that there are not now situations in industry, which are highly dangerous with respect to lead, for there are such neglected places yet, and the recurrent lead poisoning of a serious type can be found. The situation in industry is improving however, and most of the very bad conditions are disappearing.

I spoke earlier of infants and children, mostly neglected children, who develop lead poisoning of serious severity. Such children swallow lead in various amounts (sometimes in large quantities) from chewing various surfaces painted with lead-containing paints. Such paints are little used at present but paint once applied, sometimes repeatedly, remains on playpens, high chairs, household surfaces until it has been removed, and, therefore, we often see lead-poisoned children in the older cities of the United States. I have seen scores of them, some of whom have died, and some of whom have been damaged in such a manner that it would have been better if they had died in infancy. Such cases are frequent enough to give rise to serious problems in slum areas (and some good areas) in eastern and middle western American cities. These are not caused by air pollution but by the use in households of lead-containing paints that are no longer (or much less frequently) available in

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the U.S.A. This problem is far from being solved, but it will be soon, I think. It is here that the questions which you have raised are pertinent, for here the quantities of lead which are often ingested are very large and the cerebral absorption, too, is large. The answer to the problem here is prevention of the use of high lead paints in the interior of our homes, and the removal of the considerable quantities of paint once used in city areas that are now in slums. That is - the more irresponsible and the poorer people are the ones who are most involved in this situation. While a few otherwise knowledgeable and responsible people are caught up in it, it is, for the most part, now a problem for poor people in poor and neglected housing areas.

I don't mean, by the above words, to deny that there are other situations in present life (mostly city life), involving the absorption of small amounts of lead. Moreover, there is some lead in virtually every item of natural food and some lead in every animal organism on the earth, or so it seems, but lead poisoning is a quality of the absorption of relatively large quantities of lead (not traces) so that we must be sure to keep the opportunities for its absorption at a low level. Just how low this means is a matter which we must be able soon to define. However, we can say at present that the situation which relates to the normal or usual quantities which occur in the ordinary environment of man are insignificant and must be kept so.

Cordially yours,

Robert A. Kehoe, M.D.
Professor Emeritus of
Occupational Medicine

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