

March 21, 1962

Mr. Don G. Fowler
Lead Industries Association, Inc.
292, Madison Avenue
New York 17, N.Y.

Dear Mr. Fowler:

I am glad to reply to your letter of March 15th, with comments on the subjects which you have raised.

First, with respect to the significance of the X-ray findings in the bones of children, in relation to the absorption of lead. Certain lines of increased density are observed in zones of growth in the bones of children subjected to X-ray examination in a number of situations, such as that associated with the absorption of considerable quantities of lead or bismuth, in healing ricketts, and in association with the administration of certain medicaments. These lines, in relation to lead absorption (at different stages in the process), have been described in some detail in medical literature (for example Park⁽¹⁾ and Vogt⁽²⁾). They are not specific for lead, however, that is, they are not necessarily due to the absorption of lead. In view of the frequency and severity of lead poisoning among small children (1 to 4 years of age, especially), these lines are valuable as warning signs that lead poisoning must be considered in connection with a presenting illness. When observed, either incidentally, in connection with clinical radiologic examinations made for any reason, or in search of evidence of the absorption of lead, they require specific identification as to their exciting cause. They are useful, in themselves, however, in indicating the need, sometimes unrecognized previously, for the investigation of the extent of the absorption of lead by the child. Furthermore, they provide additional and easily obtained diagnostic help in situations in which it is not feasible to obtain prompt information through reliable analyses of the blood of the child. In view of the seriousness of lead poisoning in the child the diagnosis should be arrived at promptly, if possible, and skilful clinical examination of the child will often serve, in lieu of specific analytical information, to yield a working diagnosis. Resort should always be made to analysis of the blood, in particular, or of the urine (in suitable instances), if the available facilities are known to be reliable. Under any other circumstances the analytical information is more likely to be misleading than helpful.

References (these were among the first publications on this subject, and also among the best): Park, E.A.: Shadows produced by lead in the

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X-ray pictures of the growing skeleton, Am. J. Dis. Children 41:
485, 1931, Voft, E.C.: A Roentgen sign of plumbism: The lead line
in growing bone, Am.J. Roentgenol. 24: 550, 1930

With respect to the article of Warren, which I have not seen (nor
do we have it as yet, in the library, I shall make inquiry. I
have been in correspondence with him in connection with some of his
work and publications, but not on this matter. I'll look into it,
and will let you know my views when I've had a chance to see what
this is all about. Meanwhile, I find it impossible to take seriously
the substance of the quotation. We shall see.

Sincerely yours,

Robert A. Kehoe, M. D.

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