

April 30, 1952

Mr. Manfred Bowditch
Director of Health and Safety
Lead Industries Association
420 Lexington Avenue
New York City 17

Dear Manfred:

With reference to your letter of April 9 and the report of relatively large quantities of lead in certain foods, issued by Consumers' Research, as well as to the further note of April 16 attached to correspondence with Doctor Wheatley, I think it advisable to say that this is not an unimportant matter. I have but little regard for some of the attitudes of certain of the moving spirits in "Consumers' Research," notably those of Schlink, but when their facts are straight, the facts themselves may be of considerable importance. I may say also that I should want better backing for my facts than they are likely to supply, at least in some instances.

As you know, doubtless, we have analysed a large number of food materials over the years, some in their natural state and some in various stages of processing and in their final form as they are served. We have called attention to a large number of opportunities for contamination of various foods, and more particularly we have shown, on a rather broad base, the lead content of composite samples which duplicated the daily supply of food and beverages taken by normal healthy subjects. These observations made in the course of the study of the normal human metabolism of lead now number up in the thousands. They portray clearly the general picture, which has been looked into indirectly in all parts of this country. (Some few observations have been made correspondingly in England, France, Germany (pre war) and Mexico.) In general the contamination of food is greater in Europe than in the U.S.A., as is also that of water. The quantities of lead consumed by adult Americans with their food and drink range from something under 0.1 mg. to 5.0, 6.0 and occasionally 8.0 or 9.0 mg. per day. The excessively high values occur infrequently as the result of gross contamination of certain foods in their production (spraying), processing (industrial handling in lead-containing factory equipment) and preparation for the table (cooking and serving in lead-containing utensils). Indeed they occur so infrequently that the average value of the lead per day in the food of the adult is about 0.3 mg. Actually, if we were concerned only with the natural lead content of food, the daily intake of lead on the part of the adult would range from 0.1 to 0.2 mg. per day. Nevertheless, as

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the consequence of somewhat unusual choices of the items entering into the diet, or because of the consumption of unusual quantities of food, certain individuals push their average daily intake of lead from dietary sources up to more than half a milligram per day. Now this is not a small and unimportant matter, for our general study of this problem has indicated that lead accumulates progressively in the tissues of man when the daily ingestion on the part of the adult is at or only a little above this level. Certainly the maximum that could be contemplated for the healthy adult cannot exceed 1 mg. per day. This is not to say that lead poisoning would occur eventually with considerable frequency under these conditions (i.e. an intake of half a milligram per day), but the margin of safety would be much too small for comfort in the general population.

In the case of the type of desserts spoken of in the bulletin, this problem is even more serious, potentially, since these are foods that are consumed with greatest frequency by children. There is every good and practical reason for the exercise of great care against the contamination of the food of children with lead. It is not that which is found in a specific article of food which is important, especially, if that article occurs only irregularly in the diet. It is the composite result that is significant, and therefore what is in candy, chocolate, desserts, fruits, etc. in the aggregate needs careful consideration. The systematic contamination of chocolate products, especially cocoa, some years ago, was a matter of considerable concern, and the elimination of this was important. This was no secret. Rather it was known to a number of investigators and to the F.D.A. It will not do to let these and many other similar matters pass as insignificant. There will have to be a continued systematic effort on the part of food producers, manufacturers, processors and handlers to keep food essentially free of such contamination, and the systematic efforts of the watchdogs of our security in such matters will have to be continued even more vigorously than in the past, because of the vagaries and artificialities of modern technology in relation to food. Some, but probably not a large proportion, of the people in the food industries are irresponsible. They must not be permitted to escape the penalties for such irresponsibility.

On account of these considerations I cannot find myself too critical of the ultimate effects of such activities as those here under scrutiny. I don't like the source of the information. I don't trust its validity altogether, and I deplore the methods and the interpretation, but if they are at all useful in increasing care in such matters, I have to admit, reluctantly, that they are on the right side.

Sincerely yours,

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Robert A. Kehoe, M. D.