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By 99

William T. Davin, M.D.  
William B. Frymark, M.D.  
Arthur P. LeBeau, M.D.

*Franklin Park*  
**INDUSTRIAL CLINIC**

9701 West Grand Avenue  
Franklin Park, Illinois 60131

May 23rd, 1967.

Robert A. Kehoe, M.D.  
Professor Emeritus of  
Occupational Medicine  
University of Cincinnati  
Department of Preventive Medicine  
Cincinnati, Ohio 45219.

Dear Dr. Kehoe:

I wish to thank you for your reply to my request regarding information concerning the toxicity of lead in occupational conditions.

Your information was quite pertinent, and has helped us to solve our initial problems at the Motorola Company in Franklin Park, Illinois. We realize that we have a long way to go in controlling the occupational hazards in the manufacturing of television tubes. However, our initial problem was to determine at what level individuals should be withdrawn from the exposure of lead, and what were the best methods of testing both the blood and urine. I needed some definite criteria in which to work with, in order to present to the manufacturing people.

Incidentally, we have been able since the onset of my relationships with the lead problem in the tube manufacturing in this company, to reduce the average blood lead level of the employee from 67 micro grams percent to 31 micro grams percent. This has been done entirely by individual instruction, respirator mass, and "good housekeeping". The actual manufacturing methods have not changed, and at the present time, I cannot foresee any actual changes in their handling of the leadoxide in this area.

Thank you again for your kind consideration and prompt information.

Yours truly,

*William T. Davin M.D.*

William T. Davin, M.D.

Class of 1952  
University of Cincinnati  
College of Medicine.

May 16, 1967

William T. Davin, M.D.  
Franklin Park Industrial Clinic  
9701 West Grand Avenue  
Franklin Park, Illinois 60131

Dear Doctor Davin:

I regret very much my long delay in replying to your letter of April 26. I've been forced to neglect my correspondence because of several absences from Cincinnati on professional activities of one kind or another, and because of the pressure of accumulated duties during the periods at home. This may seem a bit strange in view of my retirement from the Department and the Laboratory which I headed, but the fact remains that I've been unable, thus far, to cut loose from a variety of professional relationships that were cultivated over the years, so as to get at some long delayed study and writing.

I am pleased to comply with your request to send reprints of some of the publications of the Laboratory on lead and the prevention of lead poisoning. It is likely that these articles, which give abbreviated summaries of some fairly elaborate experimental undertakings as well as industrial surveys, may raise certain questions in your mind. If such is the case, I shall be glad to answer as well as I can, and if you should care to visit me (and other members of the staff of the Laboratory who have been associated with me in this work), I should be pleased to discuss some of the practical problems.

Let me comment on two points in your letter that seem to require some attention. One is a minor matter, perhaps, and may be merely a slip of the pen; you refer to the analysis of blood serum, but it is of physiological as well as practical importance that you realize that the whole blood must be analyzed, since a very large proportion of the lead in the blood is in the erythrocytes. Much depends upon this feature of the distribution of lead in the body in the interpretation of the meaning of the levels of lead concentration in the blood.

The other point has to do with the "toxic levels" of the concentration of lead in the blood. This is not what is meant, strictly speaking, by the threshold level in the blood. Actually there is no level of the concentration of lead in the blood, other fluids or tissues of the body which can be regarded as definitely toxic. Poisoning fails to occur when the blood level is below a certain point, but it cannot be counted on to occur above that certain point. All one can say is that the higher the level, the higher is the incidence of lead poisoning within the group of persons so involved. Something else, in addition to concentration, per se, triggers an episode of intoxication, and we do not, at present, know what that factor is. However, the reprints will convey much of what we have to say, and I hope they will answer your purposes.

Cordially yours,

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

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William T. Davin, M.D.  
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9701 West Grand Avenue  
Franklin Park, Illinois 60131

April 26th, 1967

Dr. Kehoe  
Kettering Laboratory  
University of Cincinnati College of Medicine  
Cincinnati, Ohio.

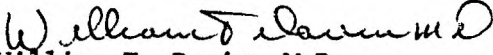
Dear Dr. Kehoe:

It has been recommended to me that I write you for definitive information regarding toxic levels of lead in blood and urine. I am acting Medical Director of the Tube Production Plant for color tubes for the Motorola Corporation in Franklin Park, Illinois and multiple lead compounds are used in their synthesis and manufacture.

In consultation with Dr. Ter Haar, associated with the Ethyl Corporation, Detroit, who is currently in research at Argonne National Laboratories, he recommended two of your articles. One was in the Journal of the Royal Institute of Public Health, vol.24, 1960, pp 81-203, and the Journal of Nutrition, vol.19, pp 579-592, 1940, regarding Spectrochemical studies of normal ranges of concentration of certain trace elements in biological materials.

If you could send me reprints of these articles and any other information regarding current status of blood serum and urine lead analyses, and their toxicologic control in their industrial applications, I would be more than grateful.

Yours truly,

  
William T. Davin, M.D.  
Grad. Univ. of Cincinnati Medical  
School (1952).