Dr. E. C. Fischbein
620-630 Fidelity Medical Building
Dayton, Ohio

My dear Doctor Fischbein:-

Please accept my thanks for
courtesy of your letter of April 9th, and the e
pression of your point of view. I am describin
position further because I should not wish you
that I disagree at all with your general attitu
laboratory procedures as diagnostic criteria.
as much as you or any other doctor the increasi
tendency to substitute laboratory tests for sou
study and judgment, and I have so expressed mys
relation to the recent trends in the problem of
toxication. There is no laboratory procedure w
specifically diagnostic of lead poisoning, and
examine everything I have said on the subject y
find that I have always insisted upon the neces
basing judgment on a complete study of the pati
not on his blood or excreta.

Your point as to variation in sus-
ceptibility is also well taken and cannot be passed over
lightly, although in my judgment it is not as important
as it is often thought to be in the case of lead. We
have yet to see a case of plumbism in which we hav
unable to demonstrate the existence of significant
exposure and absorption, when the time interval be
exposure and examination has been brief. There is
be sure, a considerable variation in the amount of
sorption required to produce illness, but in our r
wide experience it is always well above the level
normal lead intake.

This brings me to the point of
letter. I think you have misunderstood, perhaps,
our studies of normal and abnormal lead absorption
been working toward. It is not that we have been
marily interested in a diagnostic procedure per se
rather that we have been learning something of the
physiology of lead absorption and excretion, so as
be able to interpret diagnostic procedures. One t
has become quite clear, in these studies, namely,
even slight changes in lead absorption are accompa

by corresponding changes in the transportation and excretion of lead. Therefore we can use lead transportation and excretion as an adequate measure of the magnitude of exposure, if observations are made in close time relationship to the exposure.

Now in the case of tetraethyl lead in gasoline we find that exposure to high concentrations of lead in the gasoline either by way of skin contact or by inhalation results in lead absorption. However when the dilution is sufficiently low (1 part of tetraethyl lead to 1000 parts of gasoline) there is no evidence that absorption occurs even after intensive and prolonged exposure. The question is not whether intoxication occurs as the result of specific degrees of absorption, but rather whether any lead absorption occurs. The evidence which has been obtained by extremely sensitive methods of study indicates that no lead absorption takes place as a result of contact with commercial leaded gasoline which contains not more than 1 part of lead in 1260 parts of gasoline. This evidence is in agreement with the results of some ten years of clinical experience. I do not believe, therefore, that I am being oversanguine in regarding it as sound and well established. Obviously, if there is no lead absorption, the factor of susceptibility to lead does not enter into the question.

Despite all these considerations I consider leaded gasoline to be a relatively unsatisfactory cleaning agent for a variety of reasons, and I see no reason why it should be used for such a purpose. It is intended as a fuel and is so labeled. I am glad, therefore, that you have advised against its use in cleaning parts, tools and similar objects.

I enclose herewith a copy of a single analytical result obtained on the blood of Mr. Fogel. The result is within the limits observed for normal individuals with no lead exposure. Out of a group of 71 medical students there were 21 whose blood lead was of this magnitude. There is no reason for believing from this result, that Mr. [redacted] has recently absorbed any abnormal amount of lead. The other results will be sent to you when they have been obtained.

Cordially yours,

RAK:is

Robert A. Kehoe, M.D.