

may range from 0.2 to 0.6 mg. per 100 g. and if it is found to be much below this general level, doubt should be entertained as to the relationship of lead to the fatality, and the etiology of the latter should be investigated further. The concentration of lead in the skeleton of the child or adult, in fatal lead intoxication, may be increased 20-to 30-fold, and, as the direct result of the recent absorption of abnormal quantities of lead, the concentration of lead in the flat bone is found to be much higher than that in the long bone, this being directly opposite to the relationship that obtains after a prolonged period of freedom from abnormal exposure, or under the usual or "normal" environmental condition.

- 469 Epidemiology of Disease Associated With Lead. T.D. Sterling.
Arch. Environmental Health 8, 333-348 (Feb. 1964).

Epidemiological methods, and criteria for proof of association furnished by them, have been examined for use in investigations as to the effects of environmental lead on exposed populations. A number of topics have been covered. These have included observations on the relationships of lead in the environment and in the body, on the relation of lead in the urine and blood to lead intoxication, on the relation of the cumulative absorption of lead to diseases other than lead intoxication, and on the effects of prolonged exposure to low levels of dosage of lead.

-- Author's summary

- 470 Clinical Inorganic Lead Intoxication. R.T. Johnstone.
Arch. Environmental Health 8, 250-255 (Feb. 1964).

The purpose of this paper is to cite certain misconceptions regarding lead intoxication not ordinarily emphasized in the medical literature, especially the literature read by most physicians. It is hoped that it is evident that the physician should differentiate between lead absorption and lead intoxication; that no diagnosis should rest on laboratory tests alone; that the laboratory can be a source of an incorrect diagnosis; that the interpretation of laboratory results should be made by a physician, not a nurse or layman; and finally that the problem of control requires supervision by a physician knowledgeable in this area of occupational health.

-- Author's summary

- 471 Pediatric Lead Poisoning. H.D. Smith.
Arch. Environmental Health 8, 256-261 (Feb. 1964).

Lead poisoning is a treacherous disease because in early childhood its clinical manifestations are commonplace and not specific for plumbism. The intoxication develops gradually, requiring persistent ingestion of lead-containing substances usually over a period of at least 3 months. Then, chiefly during the hot summer months, acute manifestations may develop indicating involvement of the central nervous, gastrointestinal, or hematologic systems. For early recognition of the disease, a high index of suspicion and judicious use of four laboratory tests—blood examination for anemia and erythrocytic stippling, roentgenograms of the long bones for "lead lines," plain x-rays of the abdomen, looking for radiopaque flecks within the intestines, and a urinalysis especially checking for coproporphyrinuria—are essential. If any two of these four tests yield positive evidence, a tentative diagnosis of plumbism should be made, blood should be obtained for a precise analysis of lead, and the possibility of encephalopathy ruled in or out. The search for cases of saturnism should be chiefly among 15-to-36-month-old children residing in the older, more impoverished areas of the city, where the interior walls and ceilings of the houses, having in the past been repeatedly painted, are now in poor repair. Patients once treated must be watched closely for recurrences, and siblings of children with lead poisoning ought to be carefully checked for the disease. Treatment, which regrettably does not prevent either a fatality rate of 25% if encephalopathy is present, or a high incidence of neurologic and behavioral sequelae, includes the

03121463