Clinical manifestations of lead workers of Mangalore, India

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Objective: To correlate blood lead levels and clinical manifestations. *Participants*: Battery workers and painters (occupationally exposed to lead in and around Mangalore, India) and occupationally unexposed controls. *Main outcome measures*: We measured the blood lead levels by anodic stripping voltammetry, and a clinical examination was carried out on all participants. *Results*: There was a statistically significant difference between the lead-exposed group and controls with respect to clinical manifestations. The prominent findings among the lead-exposed group were fatigue, abdominal colic, abdominal discomfort, backache, muscular exhaustability, myalgia and paresthesia, at a blood lead level ranging from 0.4 to 116.6 μg/dL. *Conclusions*: Such a study on battery workers and painters has not been reported in India. Several attempts have been made over the years to relate blood lead levels to adverse health effects. It was not possible to determine a precise blood lead level below which symptoms never occur or a blood lead level at which symptoms are always reported. *Toxicology and Industrial Health* 2006; 22: 405–413.

Key words: battery workers; blood lead; clinical manifestations; correlation; India; painters

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