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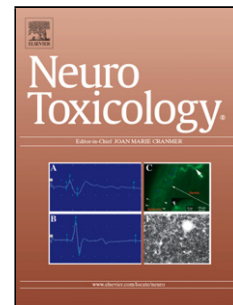
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# Manganese and Neurobehavioral Impairment

running head: Preliminary Manganese Risk Assessment

## A Preliminary Risk Assessment

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### Highlights

- Many investigations have identified associations between occupational exposure to manganese and neurobehavioral deficits.
- From these studies there are estimates of Mn exposure response that are sufficient to support a general risk assessment.
- Constant Mn exposure over long periods may have some associated neurobehavioral effects that attain a maximal or steady-state value over a shorter period such as a few years.
- Inhalable particle size appears to be an important determinant of manganese neurotoxicity with small respirable  $\ll 0.1 \mu\text{m}$  dia. particle exposures having higher potency and associated excess lifetime risks of one percent at air concentrations of  $10 \mu\text{g}/\text{m}^3$  Mn.

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