Manganese Health Research Program: Recent published literature

December 2006 – February 2007

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Introduction

This report constitutes that fourth quarterly update for the current year, and includes papers identified as being first published between December 2006 and February 2007. Bibliographic details are presented of recent literature addressing a number of research areas that are considered of direct relevance to the health effects of Manganese (Mn), and include:

**Section 1 - EXPOSURE MEASUREMENT AND MODELLING:** Papers relating to the measurements or modelling of environmental and occupational Mn exposure, the development of biomarkers of exposure or effect.

**Section 2 - HEALTH EFFECTS:** Papers on the influence of Mn on health, disease and dysfunction.

**Section 3 - MECHANISMS:** Papers on the physiological, biochemical and cellular mechanisms underlying the toxic effects of Mn.

**Section 4 - HUMAN SUSCEPTIBILITY:** Papers relating to assessment of the influence of genetic and epigenetic factors on human susceptibility to the effects of Mn.

**Section 5 - TREATMENT AND IMAGING:** Papers on the development and implementation of new medical approaches to the treatment of excessive Mn exposure.

**Section 6 - MISCELLANEOUS:** Other papers considered of interest or potential relevance to the study of the health effects of Mn.

The papers presented herein were identified using a series of structured searches of the following on-line databases: Medline, Toxline, Biological Sciences and Proquest Health. The paper abstracts were reviewed and categorised by an experience Scientist to confirm their relevance before inclusion in this report.

Future reports will present the literature published for the year 2007-2008 at 3-monthly (quarterly) intervals.
1. EXPOSURE MEASUREMENT AND MODELLING


2. Health effects


3. Mechanisms


Jadhav, S.H., Sarkar, S.N. & Aggarwal, M., et al (2007) Induction of oxidative stress in erythrocytes of male rats subchronically exposed to a mixture of eight metals found as
groundwater contaminants in different parts of India. *Archives of Environmental Contamination and Toxicology*, 52(1 (Print)), 145-151.


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4. Human susceptibility


5. Treatment and imaging


6. Miscellaneous

