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DANE COUNTY DIVISION OF PUBLIC HEALTH

MADISON DEPARTMENT OF PUBLIC HEALTH

*(Note to media: the following memo was sent from Dr. Schlenker to local physicians today. For further information, contact Dr. Schlenker at (608) 267-4122.)*

## MEMO

DATE: May 17, 2006

TO: Madison area physicians

FROM: Thomas Schlenker, MD, MPH, Director of Public Health

RE: **Manganese in Madison's drinking water: Well 10 and 3 service areas**

### **Recommendations for Infants and People with Liver Disease**

The Madison Water Utility has begun a program to flush excessive manganese build up from pipes in the Well 3 service area and will soon start flushing the Well 10 service area. Until both areas are flushed and sufficient household tap water samples have been tested, I am recommending that **infants 0-6 months of age and people with liver disease living in Well 3 and Well 10 service areas should not drink tap water**. This recommendation is based on current EPA drinking water manganese guidelines and preliminary testing of samples for Madison's high manganese producing wells. This recommendation is effective immediately, and will be reviewed following a post-flushing analysis of manganese in the affected areas, estimated to be complete in mid-August. Formula fed infants should be fed with pre-mixed, ready-to-eat, formula or concentrate mixed with bottled water. Since manganese is processed by the liver and excreted in bile, people with liver disease may not tolerate higher levels of manganese in drinking water and should also avoid tap water. Both population groups are advised to consult with their physicians.

**Adults without liver disease, and children over the age of 6 months may drink tap water in the well 10 and 3 service areas without concern.**

The EPA document "**Drinking Water Health Advisory for Manganese**" published in January of 2004 ([www.epa.gov/safewater/](http://www.epa.gov/safewater/)) sets 300 parts per billion (1 ppb = 1 microgram/liter = .001 mg/liter) as the "lifetime health advisory value." The report presents convincing evidence that chronic (months to years) exposure to elevated levels of manganese in drinking water is a risk factor for Parkinson's-like neurological disease. Short term exposure to levels above 300 ppb has not been shown to be harmful. However, based on mathematical modeling, the EPA advises that young

infants and people with liver disease should avoid even short term exposure (defined as 10 days).

Recent testing of relatively clear water samples taken from hydrants in **Madison's Well 3 and Well 10 service areas (refer to maps provided) show approximately one-third of samples testing over 300 ppb.** As part of the flushing program, these hydrants are being flushed until they all reach manganese levels that are not a health concern. There is no evidence that this process will result in higher manganese levels at the household tap. However, it is advisable that in the short term, young infants and people with liver disease in those areas refrain from drinking tap water. Madison-Dane County Public Health, in conjunction with the Water Utility, will be testing a large number of randomly selected, household, tap water samples to establish frequency and distribution of elevated levels. When this analysis is complete (estimated mid-August), I hope to have sufficient information to rescind the advisory.

I understand that the current drinking water advisory may affect your practice. Hopefully, the information included in this memo, the accompanying maps of Well 10 and Well 3, the material posted on the Madison-Dane County Public Health web site ([www.cityofmadison.com/health](http://www.cityofmadison.com/health)) and the Madison Water Utility web site ([www.madisonwater.org](http://www.madisonwater.org)) will help you advise your patients. If there is any further assistance that may be of help to you, please call me at 267-4122. If you have patients that need financial assistance in obtaining bottled water during this period of time, they can contact the Water Utility at 266-4652.

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