

Pregnancy and Lead Exposure

Guidelines for Screening, Testing, and Treating Women in Minnesota

Minneapolis Department of Health and Family Support—February 2011

SCREENING

The state of Minnesota is one of only three jurisdictions (along with New York State and New York City) that have issued guidelines surrounding lead screening and management of lead poisoning in pregnant and postpartum women.¹

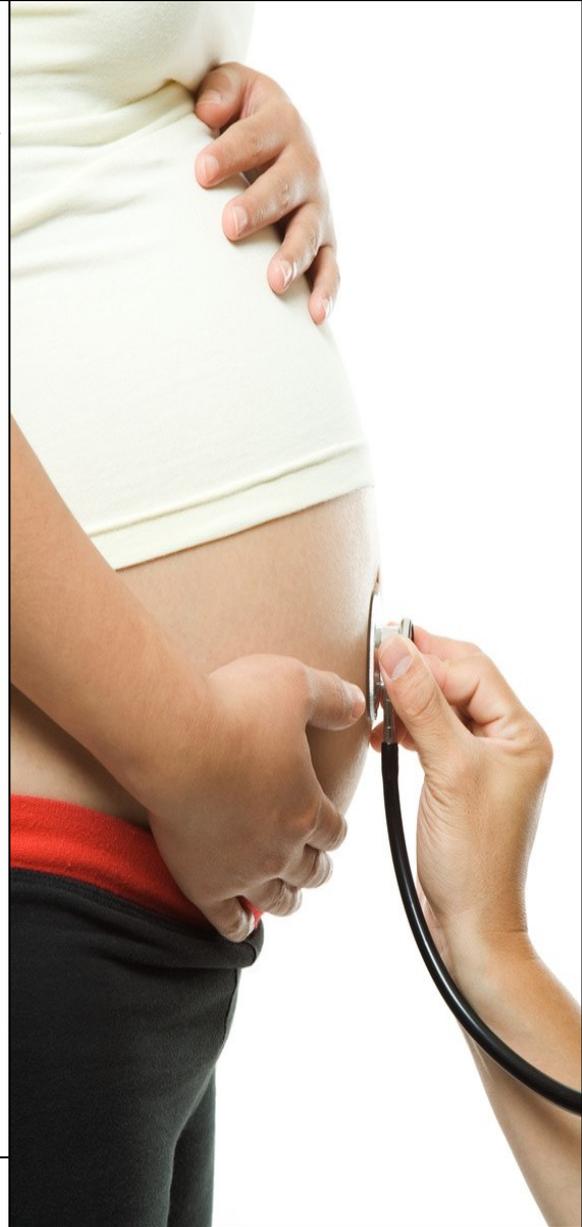
Minnesota's guidelines, as well as a risk questionnaire, can be accessed by visiting <http://www.health.state.mn.us/divs/eh/lead/reports/pregnancy/pregnancy1page.pdf>. The questions include:

- Are you (or someone else in your household) exposed to lead on the job?
- Was your home built before 1978 and are there ongoing renovations that result in high amounts of dust?
- Do you use traditional folk remedies or cosmetics?

Using this risk questionnaire, women should be assessed for lead exposure as soon as possible, ideally at the first prenatal visit. This assessment also serves as a valuable education tool as it opens dialogue between health care providers and patients about the risks associated with lead exposure.

TESTING

Not all pregnant women should be tested; only those who are determined to be at risk for lead poisoning should receive the blood test. Women at risk include those who have been identified by a health care professional that a single risk factor or more exists or those who have relocated to Minnesota from a major metropolitan area or another country within the last 12 months.



¹ Centers for Disease Control and Prevention (2010, December). *Guidelines for the identification and management of lead exposure in pregnant and lactating women*. Retrieved on 01/28/11 from <http://www.cdc.gov/nceh/lead/publications/LeadandPregnancy2010.pdf>.

RESULTS and ACTION (during pregnancy): DELIVERY

Upon receiving the results of the blood lead test, the following actions should be taken:



At the time of delivery, umbilical cord blood should be tested if a baby is born to a mother with a blood lead level of 10 µg/dL or higher to assess the child's blood lead level.

| Blood Lead Levels | Actions |
|-------------------|---|
| 0-9 µg/dL | Provide education on lead sources, exposure avoidance, and nutrition information. |
| 10-19 µg/dL | <p>Retest to determine if blood lead level is increasing.</p> <p>If levels reach 20 µg/dL or higher, further assess patient for ways to reduce risk.</p> <p>If levels remain consistent, retest near the end of the third trimester to determine course of action for newborn evaluation.</p> <p>Provide counseling on exposure avoidance and nutrition to reduce lead absorption.</p> |
| 20-44 µg/dL | <p>Retest to determine if blood lead level is increasing.</p> <p>If retest indicates a level between 10-19 µg/dL, retest near the end of the third trimester to determine course of action for newborn evaluation.</p> <p>If levels remain above 20 µg/dL, further assess patient for ways to reduce risk.</p> <p>Provide counseling on exposure avoidance and nutrition to reduce lead absorption.</p> <p>If occupational exposure is suspected, refer patient to an Occupational Health Clinic.</p> <p>If other exposures have been ruled out (e.g., occupational exposure, folk remedies, hobbies), refer patient to local public health for an environmental assessment.</p> <p>Consult with MDH's Children with Special Health Care Needs (CSHCN) program regarding patient counseling on fetal development.</p> |
| 45 µg/dL + | <p>Due to consequences of extremely high blood lead levels, consider immediate removal from current environment and hospitalization.</p> <p>Provide counseling on exposure avoidance and nutrition to reduce lead absorption.</p> <p>If occupational exposure is suspected, refer patient to an Occupational Health Clinic.</p> <p>If other exposures have been ruled out, refer patient to local public health for an environmental assessment.</p> <p>Consult with MDH's CSHCN's program regarding patient counseling on fetal development.</p> |

BREASTFEEDING

Generally speaking, breastfeeding is safe for women with elevated blood lead levels; however, infants of breastfeeding mothers with elevated blood lead levels should be closely monitored.

Testing should be performed within two weeks of baseline measurement and then at least on a monthly basis:

- For infants with a blood lead level of 10 µg/dL or greater or rising, an environmental assessment is recommended. If no environmental lead source is detected, breastfeeding should be discouraged.
- For infants with a blood lead level that stays below 10 µg/dL, breastfeeding should continue.

POSTPARTUM

During the postpartum visit, all women should be educated on the dangers of lead poisoning in infants and on prevention techniques.

FOR MORE INFORMATION

Women who are pregnant and may be concerned about their exposure to lead and/or lead poisoning should contact their medical provider.

For additional information on these guidelines, as well as other concerns regarding lead, contact the Minnesota' Department of Health's lead poisoning prevention program at www.health.state.mn.us/divs/eh/lead or 651-201-4610, 1-800-657-3908.

Reference: Minnesota Department of Health (2005, October). *Blood lead screening guidelines for pregnant women in Minnesota*. Retrieved on 01/28/11 from <http://www.health.state.mn.us/divs/eh/lead/reports/pregnancy/pregnancy1page.pdf>.