



Public Health
Prevent. Promote. Protect.

Northeast Ohio Public Health Partnership



SHAKER
HEIGHTS

Dear Health Care Provider:

The Centers for Disease Control and Prevention (CDC) recently issued guidelines for the identification and management of **lead exposure in pregnant and lactating women**. Lead exposure remains one of the most significant public health threats in our region. Below, we review key findings and summarize CDC's recommendations.

Lead readily crosses the placenta and can impair fetal growth and neurodevelopment. There is no known "safe" blood lead concentration. **Risk factors** indicating the need to screen include:

- History of elevated blood lead level (BLL) in mother or other member of household
- Recent immigration
- Pica behavior
- Occupational exposure either directly or introduced by a household member (associated with many manufacturing processes)
- Use of lead-glazed pottery for cooking or food storage
- Deficiency of calcium, iron, zinc, or vitamins C/D
- Use of some traditional remedies (especially in Indian, Middle Eastern, West Asian, and Hispanic cultures)
- Use of some imported eye cosmetics (especially from Middle East, India, Pakistan, and Africa)
- Residence in a home built before 1978 with deteriorating paint or which is undergoing renovation
- Residence near smelting or battery recycling facility

The role of calcium – Ninety percent of the body's lead resides in bone. Increased mobilization of calcium from bone during pregnancy and lactation can also release stored lead into the maternal circulation. In addition to its role in slowing bone calcium mobilization, adequate calcium intake is believed to reduce GI lead absorption. Two large trials have shown substantial reductions in BLL among pregnant or lactating women receiving calcium supplementation.

Management of pregnant/lactating patients with blood lead levels $\geq 5 \mu\text{g/dL}$

Nutritional assessment of the pregnant woman is recommended.

<u>Decrease Lead Exposure</u>	<u>Supplementation</u>	<u>Breastfeeding</u>
Avoiding exposure is the most effective prevention. Besides addressing the above risk factors, hand-washing is one of the most beneficial interventions.	Calcium – 2,000 mg/day through supplementation, diet or a combination of both Vitamin D – Prenatal vitamins provide recommended intake Iron – Correct any deficiency	If mother's BLL exceeds 40 $\mu\text{g/dL}$, continue pumping and discard milk, resuming breastfeeding when BLL falls below 40 $\mu\text{g/dL}$.

For additional information or resources, contact your local health department. Full CDC guidelines are available at <http://www.cdc.gov/nceh/lead/publications/leadandpregnancy2010.pdf>

Sincerely,

Karen Butler, MHA
Director
Cleveland Dept. of Public Health

Terry Allan, RS, MPH
Health Commissioner
Cuyahoga County Board of Health

Scott Frank, MD, MS
Director
Shaker Heights Health Department