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**From:** Wells, Eden (DHHS)  
**Sent:** Friday, October 30, 2015 3:36 PM  
**To:** Dykema, Linda D. (DHHS)  
**Subject:** Re: Breast feeding and maternal lead exposure

Ok

Sent from my iPhone

On Oct 30, 2015, at 2:26 PM, Dykema, Linda D. (DHHS) <[DykemaL@michigan.gov](mailto:DykemaL@michigan.gov)> wrote:

I don't have any information beyond what's in this CDC publication that I had previously shared with you.

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**From:** Wells, Eden (DHHS)  
**Sent:** Friday, October 30, 2015 2:18 PM  
**To:** Dykema, Linda D. (DHHS)  
**Subject:** Fwd: Breast feeding and maternal lead exposure

Sent from my iPhone

Begin forwarded message:

**From:** "Valacak, Mark" <[MVALACAK@gchd.us](mailto:MVALACAK@gchd.us)>  
**Date:** October 30, 2015 at 1:53:22 PM EDT  
**To:** "Wells, Eden (DHHS)" <[WellsED@michigan.gov](mailto:WellsED@michigan.gov)>, Laura Carravallah  
 <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>  
**Cc:** Lawrence Reynolds <[REDACTED]>, [REDACTED], Peter Levine  
 <[plevine@gcms.org](mailto:plevine@gcms.org)>  
**Subject:** RE: Breast feeding and maternal lead exposure

In adults when we see high levels it is generally an occupational exposure and inhalation of lead fumes in industrial exposure settings like battery manufacturing, lead smelting, and stained lead glass.

A couple of factors are important to remember when we are talking about lead exposure in adults versus children. Absorption rates from gastrointestinal exposure are lower in adults versus children. So where a toddler might absorb about 50%, absorption rates decline in adults to 3-10%. About 90% of lead will end up in the bone where it mimics calcium. It causes less harm there than if it went to soft tissues like the liver or kidneys. The problem is that under circumstances that cause calcium mobilization, lead stored in the bone may remobilize and circulate in the blood, elevating blood lead levels. The mobilization of stored lead with pregnancy, menopause, and aging is a cause for concern. So to help mitigate that there should be an emphasis on good nutrition and a calcium rich diet. Pregnant and breastfeeding woman should be sure to take their vitamins to minimize calcium mobilization from the bones.

Reinforcing these messages would help minimize exposure.

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"There are two lasting bequests we can hope to give our children: one is roots; the other is wings." Hodding Carter

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**From:** Wells, Eden (DHHS) [<mailto:WellsE3@michigan.gov>]  
**Sent:** Friday, October 30, 2015 12:02 PM  
**To:** Laura Carravallah  
**Cc:** Lawrence Reynolds; PPI; Peter Levine; Valacak, Mark  
**Subject:** Re: Breast feeding and maternal lead exposure

Looping I our toxicologist, as we ha e discussed this. Note that anyone should be using filtered or bottled water now, so that the issue of which house and which risk should already be addressed. Also- we do not have any data supporting adults with blood lead levels that high ( Off top of my head) and none have been in the 40's or higher since Long before April 2014.

Regardless, Linda and I had talked about breastfeeding moms... She can help.

Eden

Sent from my iPhone

On Oct 30, 2015, at 11:33 AM, Laura Carravallah <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)> wrote:

Thank you for your quick answer!

This makes sense for pregnant moms, as there is no choice as to how the baby will get its nourishment. However, for breastfeeding moms in households in which filters will be provided, do we know that breast milk (with possible higher maternal BLLs secondary to bone release from chronic exposure) is preferable to filtered tap water? Does anybody know what the range of breast milk lead levels are in women