



Healthy Homes  
Healthy Children

# Lead Update

## Pica, Lead Poisoning and Pregnancy: Information for Providers and Parents

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Pica is defined as a craving for, and ingestion of, nonnutritive substances. Common substances consumed during pica behavior include dirt, clay, ice, and laundry starch. Others include burnt matches, coffee grounds, stones, cornstarch, charcoal, mothballs, toothpaste, soap, sand, plaster, baking soda, and cigarette ashes.

Pica is of particular concern for both children and pregnant women. These two groups have been found to be at higher risk for exhibiting pica behavior, and can suffer severe health consequences as a result of consuming non-food substances. Complications from pica can include abdominal and digestive problems, mercury poisoning, dental injury, and lead poisoning. Moreover, eating non-food substances can inhibit nutrient absorption of healthy food substances, and may be extremely toxic to the body. Unfortunately, pica is a poorly understood and poorly researched behavior. Some researchers speculate that pica may be the body's attempt to obtain minerals, vitamins, or nutrients that are missing from their daily diet.

Consumption of non-food substances, such as dirt, that may contain lead can put fetuses of pregnant women and young children at a high risk for lead poisoning. Lead freely crosses the placenta, and can poison a child before it is even born. In utero lead poisoning can cause poor birth outcomes, such as intrauterine growth retardation, congenital anomalies, and neurobehavioral deficits. There is a relatively scarce amount of research on prevalence rates of pica behavior among pregnant women, and thus estimates range tremendously from one study population to another.

However, it is certain that pica poses a large risk to fetuses, and thus pregnant women should be screened regularly for this behavior. Health care providers and families need to become more aware of and educated about pica. Providers should work to screen pregnant women about pica behavior in an open, direct, nonjudgmental, and culturally sensitive manner. If you are interested in more information about pica, please consult the references below or call (401) 222-7681.

**\*References:** *Rainville, A.J.* J of Amer. Dietetic Assoc. Vol.98 (1998);  
*Rose, EA.* J of Amer. Board of Family Practitioners. Vol 13 (2000);  
*Corbett, R.* Amer. Journal of Maternal/Child Nursing. Vol. 28 (2003).

### PRODUCT WATCH !!!!!

The following products have been tested in other states and may contain a dangerous amount of lead. If you have a concern about a product, please call (401) 222-7681.

- ✳ L'il Critters® Gummy Vites®
- ✳ Lucas Limon® ✳ Lucas Acidito®
- ✳ Super Lucas® ✳ Super Jovy Chili Powder®

## **New KIDSNET Tools Provide Improved Lead Data**

Rhode Island's statewide immunization database - KIDSNET – is the repository for several data imports from various state public health programs, including WIC, Early Intervention, Hearing, Immunizations, and Lead. The Lead Program has been using KIDSNET data for quality assurance purposes since 1998 and has been conducting multiple efforts to reach parents of unscreened children and inform providers about lead screening in their practices. Recently, KIDSNET received funding to hire programming resources from a vendor- HLN - and successfully implemented new, powerful tools to match and merge records from these multiple import sources. As a result, KIDSNET is now able to provide data and generate reports that are significantly more complete and accurate than past analyses. Specifically for the Childhood Lead Poisoning Prevention Program, the new match and merge tools have increased the availability of accurate data regarding children's lead screening status in KIDSNET.

Prior to the implementation of the match and merge tools, KIDSNET was unable to import an estimated 14,767 records of lead screenings from the Lead Elimination Surveillance System ("LESS") database because matching/merging tasks required manual intervention. This discrepancy would then translate to a grossly underestimated number of children with lead screenings for any report generated through KIDSNET. However, since the implementation of the new tools, nearly 90% of those lead records have been resolved and successfully imported into KIDSNET. With the addition of over 13,000 records and increased efficiency in matching capabilities, KIDSNET now offers dramatically more complete and accurate information for primary care providers, Lead Centers, HeadStart agencies and various other partners of the Lead Program with access to KIDSNET.

With this advancement in data quality, and if resources allow, the Lead Program plans to collaborate further with KIDSNET to develop future quality assurance reports and mechanisms, so that the highest level of lead screening data is provided to all of our partners, and in turn, the children of Rhode Island will receive only the highest standard of care.

## **HEALTH to Assess Challenges in Race and Ethnicity Data Collection**

In 2003, the Office of Management and Budget required federal and state agencies to begin collecting "race" and "ethnicity" data as two independent categories, adding to the complexity of the data collection process. This complexity has not been overcome at the national or local level, and HEALTH is currently unable to release any lead data within racial and ethnic groups because the data is incomplete.

Beginning in late August, HEALTH will be conducting surveys in laboratories throughout the state to assess challenges to the collection of race and ethnicity data. The project's goal is to obtain anonymous and confidential responses from individuals, parents, and laboratory professionals that will help HEALTH to identify why 50-60% of children's race and ethnicity data are missing from blood lead tests in Rhode Island. Race and ethnicity data are crucial to identifying at-risk communities in Rhode Island, and will help HEALTH to more effectively target its lead poisoning prevention efforts. If you have any questions about this project, please contact Daniela Quilliam at 222-7730 or [DanielaQ@doh.state.ri.us](mailto:DanielaQ@doh.state.ri.us).