Prenatal—Risk Assessment of Lead Exposure: Education and Anticipatory Guidance

1. Primary prevention of childhood lead poisoning begins before birth

2. All pregnant women should be given anticipatory guidance about potential lead exposure

3. A risk assessment questionnaire (appendix) may be useful in identifying areas of risk reduction for counseling

4. Recommendations for women with affirmative responses
   a. Any children in the household should have a blood lead test
   b. Provide information on environmental sources of lead and how to reduce or eliminate exposure
   c. Provide nutrition counseling to reduce absorption of ingested lead
      i. Eat frequent and regular meals. Environmental lead is more easily absorbed on an empty stomach
      ii. Increase the amount of iron and calcium in diet
         a. Iron - lean red meat, poultry, fortified breads & cereals, cooked legumes (dried beans/peas), spinach
         b. Calcium—milk, yogurt, cheese, cooked greens, calcium fortified orange juice
   d. Refer the woman to the Office of Safety and Health Administration if occupational exposure is suspected
   e. Assessment of maternal blood lead levels in asymptomatic pregnant women solely on the basis of an affirmative response is not recommended
      i. There are no guidelines regarding medical treatment for women with elevated blood lead levels during pregnancy
      ii. There are no guidelines that quantify fetal risk on the basis of maternal blood lead levels

*ODH medical guidelines are pending Federal Centers for Disease Control recommendations.

References:
The State of New York Health Department (http://www.health.state.ny.us/nysdoh/leadhandbook/phc10.htm)
The State of Minnesota Health Department
Prenatal Risk Assessment Questions for Lead

1. 
   Sometimes pregnant women have the urge to eat things which are not food, such as clay, soil, plaster or paint chips.
   Do you ever eat or chew on non-food items?

2. 
   Do you live in or regularly visit an old house (built before 1950) with ongoing renovations that generate a lot of dust (e.g. sanding, scraping)?

3. 
   Do you live in or regularly visit an old house (built before 1950) that has peeling, chipping, dusting or chalking paint?

4. 
   Do you have children in the household with lead poisoning?

5. 
   Do you have a history of lead poisoning?

6. 
   To your knowledge, has your home been tested for lead in the water, and if so, were you told that the level was high? (≥15 parts per billion (ppb) or micrograms per liter (mcg/L) is considered high.)

7. 
   Do you use non-commercially prepared pottery or leaded crystal?

8. 
   Do you or others in your household have an occupation (see below) involving lead exposure?

<table>
<thead>
<tr>
<th>Lead abatement</th>
<th>Use of lead-based paints</th>
<th>Home renovation/restoration</th>
<th>Metal scrap yards/other recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing/installation of</td>
<td>Brass/copper</td>
<td>Glass recycling, including</td>
<td>Occupations using firearms</td>
</tr>
<tr>
<td>plumbing components</td>
<td>foundry</td>
<td></td>
<td>stained glass</td>
</tr>
<tr>
<td>Firing range work</td>
<td>Pottery making</td>
<td>Production/use of chemical</td>
<td>Bridge, tunnel and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>preparations</td>
<td>elevated highway construction</td>
</tr>
<tr>
<td>Motor vehicle parts and accessories</td>
<td>Automotive repair shops</td>
<td>Industrial machinery</td>
<td>Battery manufacturing/repair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>manufacturing</td>
<td></td>
</tr>
</tbody>
</table>

9. 
   Do you use any traditional folk remedies or cosmetics (see below) that are not sold in a regular drug store or are homemade, which may contain lead?

- Alkohl (kohl, surma)
- Azarcon (reuda, liga, coral, ahtarcon, maria luisa)
- Bali goli
- Ghazard
- Greta
- Pay-loo-ah

10. 
    Do you or others in your household have any hobbies or activities likely to cause lead exposure (see below)?

<table>
<thead>
<tr>
<th>Scraping, sanding, or burning lead-based paint on household structures or furniture</th>
<th>Making or painting on stained glass</th>
<th>Copper enameling</th>
<th>Bronze casting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making pottery/ceramic ware with lead glazes/paints</td>
<td>Casting ammunition, fishing weights or lead figurines</td>
<td>Collecting, painting, or playing games with lead figurines</td>
<td>Jewelry making with lead solder</td>
</tr>
<tr>
<td>Electronics with lead solder</td>
<td>Print making (using lead white, flake white, and chrome yellow pigments)</td>
<td>Liquor distillation</td>
<td>Hunting and target shooting</td>
</tr>
</tbody>
</table>

**Yes response** = please refer patient to one of the Ohio Lead Regional Resource Centers (RRC) for education.

**Northwest RRC** = Andrea Cook, 419-447-3691 ext 132

**Southwest RRC** = Tyree Sherrer, 513-357-7424

**Eastern Ohio RRC** = Nick Cascarelli, 330-270-2855 ext 138