



Kapa'a Pediatrics, LLC

## Lead Poisoning

### **Lead poisoning in children:**

Normal there should be no lead in your body. With so much lead in our environment everyone has some lead in them but less is ALWAYS better. On Kauai, lead levels should be undetectable in our children. Lead poisoning is when there are high levels of lead in your child's body. High levels of lead in the body can cause problems with the brain, intestines, kidneys, and bone marrow.

### **Causes of lead poisoning:**

On Kauai the most common reasons children have lead poisoning are if they live or play around an old house that has lead paint, or if their parent works with lead on a regular basis. Inhalation (dust that contains lead from broken down lead paint) and ingestion are usually the fastest ways to absorb lead. Lead does not transfer through vegetables grown in contaminated soil.

### **Symptoms of lead poisoning:**

At low levels children will not have ANY symptoms. At high levels children may experience belly pain, headaches, vomiting, muscle weakness, trouble paying attention, behavior problems, trouble learning, seizures, impaired growth, hearing loss, and anemia.

### **Lead can affect your child's IQ:**

Studies have shown that increases in lead levels were associated with a decrease in IQ by 5 years in age, EVEN AT LOW LEAD LEVELS!

### **Screening:**

Since children do not show any symptoms for low levels of lead, it is recommended to do lead screening at 9-12 months of age, and again at 2 years of age if necessary. Patients always ask if it is necessary to get the screening done. Yes! Generally speaking the chances of having a high lead level is unlikely but we do see low levels a few times a year. These children if not screened would have a lower IQ when they grow up. As a parent, would you want your child to have a lower IQ, even if only by a few points?! I wouldn't!!!

### **Prevention and Treatment:**

- Make sure you get lead screening on time as recommended.
- If you are living in an old house get the paint tested for lead.

- Make sure there is no lead piping that water runs through.
- If your child has an elevated level we will call you to go over usual precautions, such as cover all dirt around the house with 2 inch layer of mulch to prevent dust in the air. Toys that children play with regularly can be tested for lead, especially if they are not made in the United States.
- Is there anyone at home who works with lead? If so they can change clothes at work, and take a shower when they get home from work.

**Recommendations for Children with Confirmed Elevated Blood Lead Levels**  
**Blood Lead Level MG per dL**

| Intervention                            | 10-14 MG           | 15-19 MG   | 20-44 MG  | 45-69 MG  | >70 MG  |
|---|--------------------|--|---|---|---|
| Education                               | Diet, Environment  | Diet, Environment  | Diet, Environment   | Diet, Environment   | Diet, Environment   |
| Actions and Interventions               | Education only     | Repeat measurement of blood lead levels in 3 months. If repeat levels are still in this range or higher, proceed to actions and interventions for 20-44 MG per dL. If repeat levels are less than 15 MG per dL, perform education only at this time. | Complete history and physical examination.<br>Laboratory testing (hemoglobin, hematocrit, iron status)<br>Abdominal radiography (if particulate ingestion is suspected) with bowel decontamination (if indicated)<br>Environmental investigation<br>Lead hazard reduction | Chelation therapy<br><br>All actions and interventions as indicated for 20-44 MG per dL | Hospitalize immediately and begin chelation therapy<br><br>All actions and interventions as indicated for 45-69 MG per dL |
| Initial follow up blood lead monitoring | Three months       | One to three months  | Two weeks to one month  | As soon as possible   | As soon as possible   |
| Late follow up blood lead monitoring    | Six to nine months | Three to six months  | One month   | During/after chelation  | During/after chelation  |
| Additional monitoring                   | ---                | ---  | Developmental monitoring  | Developmental monitoring  | Developmental monitoring  |

\*\*\* Patient handouts created by Kapa'a Pediatrics are intended to give parents the most common and pertinent facts about a certain issue. If there is ever any concern that your child was given an incorrect diagnosis or is not following the usual expected course for an illness please call us to speak with a physician. (808) 634-8011\*\*\*