

## Lead Toxicity

Lead poisoning poses a serious health hazard to children. In extreme cases it can be fatal.

New lead poisoning guideline threshold recommendations from the CDC, which have been discussed by policy briefs from the Chicago Department of Public Health are discussed below. **New guidelines for high lead levels have been changed to levels at or above 5 µg/dL.**

The city of Chicago recognizes that lead poisoning among children is a serious issue that should be addressed. According to the Department of Public Health, it is estimated that 80% of homes in Chicago were built before the ban on lead based paints. Lead can be found in peeling lead-based paint (those homes or buildings built before 1978), dust, dirt and tap water. Lead is also found in dust from contaminant such as paint chips, fumes from leaded gasoline to name a couple.

Children between the ages of six months and six years of age are at greatest risk because:

- 1) They have a greater tendency to put contaminated items in their mouths.
- 2) Lead is more quickly absorbed by a young child's body.

Lead poisoning can lead to:

- Developmental delays
- Brain Damage
- Stunted growth
- Hyperactivity
- Behavior problem(s)
- Death (in extreme cases)

### **Blood Screening Guidelines for Chicago Child Care Centers**

Chicago Licensing: Health Requirements for Child Care Centers *[section (1)(V)(C)(3)(d)]*

Children shall be screened for lead poisoning or obtains within two months of admission, lead screening annually thereafter.

### **Blood Lead Screening Plan for Chicago**

Chicago Dept of Public Health, Lead Poisoning Prevention Program 2008: *(most recent version available)*

Screening Guidelines for Children 6 months of age through 3 years:

Blood tests for children should be obtained at: 6, 12, 18, 24, 36 months

Or by following this schedule: 9, 15, 24, 36 months

Screening Guidelines for Children 4 years to 6 years old:

Children 4 – 6 years of age with prior blood test levels < 10µg/dL should have an annual risk assessment. A blood test should be performed if risk increases or if the child exhibits persistent oral behaviors.

## New Guidelines for Abnormal Blood Lead Level

\*Chicago Department of Public Health Policy Brief: July 2013

New recommendations: For many years, the Centers for Disease Control and Prevention (CDC) defined a BLL of 10 µg/dL as the level at which public health actions should be initiated. However, just last year the CDC Advisory Committee on Childhood Lead Poisoning Prevention (ACCLPP), a group of experts who advise the **CDC on scientific knowledge, recommended lowering the BLL considered elevated to 5 µg/dL.**

## Schedule for follow up treatment of blood lead levels (BLL)

Illinois Department of Health: Lead Screening and Case Follow-up Guidelines for Local Health Department, March 2011

Venous blood lead level	Early follow up (first 2-4 tests after identification)	Late follow up (after BLL begins to decline)
10-14 µg/dL	3 months	6-9 months
15-19 µg/dL	1-3 months	3-6 months
20-24 µg/dL	1-3 months	1-3 months
25-44 µg/dL	2 weeks – 1 month	1 month
≥ 45 µg/dL	As soon as possible	Chelation with follow up

## Nutritional Lead Concerns

### Pica

Pica is a pattern of eating non-food materials. (Definition from the National Institute of Health) Pica is seen most frequently in pregnant women and small children. Lead can accumulate in these items and pose a threat if consumed in large amounts. Adults or children who regularly consume non-food items may wish to speak to their healthcare providers to determine if there are underlying conditions causing the urge to eat these items.

Examples of types of items consumed are:

•Dirt    •Sand    •Paper    •Clay    •Hairballs    •Ice    •Paint

### Iron intake

The Illinois Department of Public Health initiative, Get the Lead Out, provides information on ways to reduce lead exposure to children. One such recommendation is to ensure that children are consuming adequate intake of iron rich foods and calcium rich foods.

For more information, please talk to your health care provider or nutritionist for more information. The Illinois Department of Public Health Lead Program website can be viewed here: <http://www.idph.state.il.us/illinoislead/>