

## Protection Against Lead Poisoning

Written by Dr. Niru Prasad

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Lead Poisoning is a disease caused by eating lead contained in bits of old paints, dirt contaminated by lead, lead contained in pottery glaze or breathing lead in the air or from drinking water from pipes lined with lead. Lead poisoning is very common in children especially those who live in rural areas in old houses built before 1970 and the incident increases if it is not detected early.

### Increased if:

- Children are poorly nourished. maintained housing with lead chips peeling and rural children with lead
- a. City children living in old, poorly off the walls. b. Suburban exposures from other sources. c.

*What are the sources of lead in the environment?*

1. Paint – Millions of homes have lead paint on windows and sills, doors, frames, walls, floor, stairs, railings and banisters, woodwork molding, baseboard and porches with fences. 2. Contaminated soil from chips, dust from exterior paint, lead-based insecticides and highway pollution from lead containing gasoline. 3. Contaminated water from old plumbing and lead water pipes. 4. Auto exhaust and industrial pollution. 5. Contaminated food, especially those grown near heavily traveled roads, food stored in poorly glazed pottery or packaged in cans with lead seams or stored in leaded crystal for prolonged periods.

### Other sources of lead include:

1. Dust from renovating the house. 2. Drapery and window weights. 3. Battery casing. 4. Antique pewter. 5. Some lead containing medicines and cosmetics. 6. Porcelain and potteries. 7. Dust and fumes from hobbies such as stained glass, etc.

### Young children are affected more because:

- a. They put everything in their mouths. b. Their bodies absorb lead more easily than adult's bodies do. c. There are usually no early symptoms of lead poisoning.

*What are the signs and symptoms of lead poisoning;*

1. Flu-like symptoms. 2. Stomachache and cramps. 3. Irritability. 4. Fatigue. 5. Constipation or frequent vomiting. 6. Sleep disorder. 7. Poor appetite. 8. Inability to concentrate at school leading to Attention Deficit Disorder.

*At lower lead level in the blood;*

- a. Children may show poor growth and development. b. Low I.Q. scores. c. Learning disabilities. d. Damage to the nervous system. e. Anemia. As more lead accumulates in blood, these children develop weakness, clumsiness and loss of acquired skills. At higher levels, lead can cause coma, convulsions and death.

### **LEAD SCREENING GUIDELINES**

Most children should be screened starting at 12 to 15 months of age, however, in high-risk children; screening should be started at 6 to 9 months of age.

*Who are the high-risk children?*

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1. Children who live or play in old housing with chipping lead paints from the wall.
2. Children who have siblings with high lead level.
3. Live with someone who is exposed to lead on the job.
4. Those who live near battery recycling plants or other industries that release lead in the air.

*What are the screening tests for lead poisoning;*

1. Blood tests for anemia and lead level. 2. X-rays of long bones if lead levels are high.
3. If the blood lead level is greater than 10ug/dl then the pediatrician should follow National guidelines set by the Center For Disease Control or American Academy of Pediatrics for follow up and treatment.
4. Urine examination.

## **HOW TO PREVENT LEAD POISONING**

A well child visit should include preventive information to the parents regarding the importance of avoiding lead hazards.

**Children should be advised to:**

- a. Eat a well balanced, high nutritious diet.
- b. Frequent hand washing.
- c. Avoiding lead dusts in older homes.
- d. Measures to minimize exposures to lead contaminated water.

**Here are some guidelines for prevention:**

1. Be alert for chipping and flaking paint. 2. Watch your toddler closely, make sure child puts only clean, safe toys in mouth.
3. Use safe interior paints on toys, walls, and furniture.
- 4.

## **DO NOT**

- let them touch pottery.
5. Store unused food in glass or plastic containers, NOT in open cans.
6. Don't allow your child to eat snowflakes or icicles.
7. Have your water tested for lead content frequently by contacting your local public health.
8. Get rid of old cribs that might have lead paint.
9. Children should be fed well balanced diets with high iron and calcium.
10. If you work with lead, always shower and changes before coming home and wash your clothes separately from other family members clothing.

**If lead paint is found in your home:**

- a. Keep a close eye on young children.
- b. Wet mop hard surfaces with high phosphate detergent.
- c. Before removing or covering lead paint, follow health and safety requirements and precautions. Evacuate all occupants until the job is done and store furniture, rugs and food dishes away from the area until clean up has been done.
- d. DON'T burn painted wood.
- e. If you suspect lead in your water pipes let cold water run for a few minutes before using it for cooking or drinking and buy a filter that is certified for lead removal.

**For more information about lead poisoning, you may contact:**

1. Local Water Department about water pipe contamination.
2. Poison Control Center.
3. Public Health Department.
4. Local

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Housing Authority.  
Childhood Lead Poisoning

5. Family physician or health centers.  
Prevention Program.

6. Local