

Pediatric Blood Lead Testing & Case Management Guidelines

Criteria for testing asymptomatic children at well child visits (not applicable to children previously or currently lead poisoned):

- Test all children at 12 months and 24 months. Vermont law requires this.
- Test all children ages 36 to 72 months who have **not previously been tested**.
- For **refugees**: test all children ages 6 months to 16 years old upon entry to the U.S. Perform a follow-up blood lead test on all refugee children ages 6 months to 6 years within three to six months, regardless of initial test result.

Confirmation of Capillary Blood Lead Tests

Capillary levels ≥5 µg/dL *need* to be confirmed by venous sampling. The Vermont Department of Health initiates case management for **venous confirmed** elevated blood lead levels.

Schedule for Obtaining Venous Samples				
Capillary Blood Lead Levels	Confirm With Venous Test Within*			
5 – 9 μg/dL	1 – 3 months			
10 – 44 μg/dL	1 week – 1 month			
45 – 59 μg/dL	48 hours			
60 – 69 μg/dL	24 hours			
70+ μg/dL	Immediately as an emergency test			
*It is preferable to confirm as early as possible.				
The higher the capillary test result, the more urgent the need for a confirmatory venous test.				

Other Indications to Test for Lead

Blood lead testing should be part of a diagnostic work-up for children who are members of potential at-risk populations and for any child, regardless of age, with any of the following symptoms:

- Developmental problems/delays or behavioral problems such as aggression, hyperactivity, attention problems, school problems, learning disabilities, excessive mouthing or pica behavior, or other behavior disorders
- Ingestion of an object that may contain lead
- Symptoms or signs consistent with lead poisoning including irritability, headaches, vomiting, seizures or other neurological symptoms, anemia, loss of appetite, abdominal pain and cramping or constipation
- Potential at-risk populations: International adoptees, immigrants, children of migrant workers, children in foster care, and children diagnosed with pica or special health needs that increase hand-to-mouth behavior.

Note: All blood lead results must be reported to the Vermont Department of Health. Most laboratories report directly to the Health Department. Contact the Healthy Homes Lead Poisoning Prevention Program to confirm that your laboratory or Lead Care II results are being reported.

Sources of Lead Exposure for Children

- Lead dust from deteriorated lead-based paint is the most common source of childhood lead poisoning in homes built prior to 1978 when lead-based residential paint was banned (70% of Vermont homes). Exposure occurs through inhalation or ingestion of lead dust.
- Lead contaminated soil from around the drip lines of older homes and along roadways where contamination from leaded gas remains
- Keys and other common products such as metallic candle wicks, foreign-made children's jewelry, ceramic pottery, lead solder in plumbing, antique furniture, salvage building components, old bathtubs, marine/automotive/art paints, and "take-home" lead from an adult whose job or hobby involves lead
- Health remedies, cosmetics, powders, spices, food and traditional medicine from other countries

Schedule for Venous Re-testing						
Venous Blood Lead Level	Early Follow-Up (first 2 – 4 times after identification)	Late Follow-Up (after blood lead level declining)				
5 – 9 μg/dL	3 months	6 – 9 months				
10 – 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	Initiate chelation and re-test in 7 – 21 days	As clinically indicated. Contact the Health Department for consultation.				

Clinical Treatment Guidelines for Venous Confirmed Blood Lead Levels								
These guidelines were created for children from 6 to 72 months of age.	Blood Lead Levels in Micrograms Per Deciliter (μg/dL)							
		10 – 44	45 – 59	60 – 69	70+			
Medical Evaluation								
TREAT AS AN EMERGENCY – potential encephalopathy				Х	Х			
Check abdominal x-ray Other diagnostic tests: BUN, CBC, Creatinine, UA and liver enzymes			Х	х	Х			
Monitor neurodevelopment (especially language skills and concentration ability)		Х	х	Х	Х			
Check nutritional status (especially iron status and calcium) Rule out iron deficiency and treat if present		х	х	х	Х			
Medical Management								
This level requires chelation – recommend the use of succimer per routine dosage Consult the Health Department for information regarding chelation treatment			Х	х	Х			
Discharge inpatient cases ONLY to LEAD-FREE ENVIRONMENT			х	Х	Х			
In-home treatment indicated only in situations of: • Lead-free environment • Highly compliant family • Home health care monitoring			х	х	Х			
Iron supplement if deficient Be sure to stop iron therapy prior to chelation	Х	Х	Х	х	Х			
 Educate family – discuss Potential sources of lead and ways to reduce or remove exposure Dangers of improper lead abatement/remodeling Nutrition – encourage high iron/high calcium diet Chronic nature of problem (need to re-test) 	х	х	х	х	х			
Provide written, culturally appropriate lead poisoning prevention education materials.	х	х	х	х	Х			
Follow-up								
Health Department will offer phone education								
Health Department will conduct an environmental inspection, which is triggered independently when lab test results are received.		Х	Х	Х	Х			
Follow venous re-testing schedule above		Х	Х	Х	Х			
Screen other children under six years old in the home		Х	Х	Х	Х			