

Rules of
Department of Health
and Senior Services

Division 20—Division of Environmental Health and
Communicable Disease Prevention
Chapter 8—Lead Program

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**Title 19—DEPARTMENT OF
HEALTH AND SENIOR SERVICES**

**Division 20—Division of Environmental
Health and Communicable Disease
Prevention**

Chapter 8—Lead Program

**19 CSR 20-8.010 Accreditation of Lead
Training Program**

(Rescinded February 29, 2000)

AUTHORITY: section 701.314, RSMo 1994. Emergency rule filed Nov. 2, 1994, effective Nov. 12, 1994, expired March 11, 1995. Emergency rule filed March 1, 1995, effective March 12, 1995, expired July 9, 1995. Original rule filed Nov. 2, 1994, effective June 30, 1995. Emergency rescission filed Aug. 19, 1999, effective Aug. 30, 1999, expired Feb. 25, 2000. Rescinded: Filed Aug. 19, 1999, effective Feb. 29, 2000.

19 CSR 20-8.020 Licensing of Lead Inspectors, Lead Abatement Workers and Lead Abatement Supervisors/Contractors

(Rescinded February 29, 2000)

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19 CSR 20-8.030 Lead Poisoning Assessment, Testing, Follow-Up, and Reporting

PURPOSE: This rule sets forth the criteria for determining high-risk areas for lead poisoning in Missouri; describes who is to perform blood lead testing, testing requirements in high-risk and non-high-risk areas; type of and when to use each type of blood test; follow-up steps for elevated blood lead levels; requirements for child care facility directors in high-risk areas; and reporting requirements for lead poisoning case follow-up activities.

(1) Definitions.

(A) Adult is any person eighteen years of age or older (≥18).

(B) ATSDR refers to the federal agency called the Agency for Toxic Substances and Disease Registry.

(C) Blood lead testing refers to the process of obtaining a blood sample, either by capillary or venous sample, and the analysis for lead content of the sample.

(D) Case Management refers to the collaborative process that assesses, plans, implements, coordinates, monitors and evaluates options and services to meet the health needs of an individual with lead poisoning to effectively reduce their lead level by using communication and available resources to promote quality, cost effective outcomes.

(E) CDC refers to the federal agency named the Centers for Disease Control and Prevention.

(F) Chelation is a physician-supervised medication treatment specifically meant to gradually remove lead from the body.

(G) Child (children), refers to a(all) child(ren) less than eighteen years of age (<18).

(H) Childhood Blood Lead Testing and Follow-Up Guidelines refers to the time intervals at which confirmatory venous blood lead testing should be performed, the time intervals at which retesting of children should take place and the follow-up actions that should be undertaken based on the results of blood lead test results.

(I) Clearance testing refers to post-abatement clearance procedures that must be performed following abatement work at an elevated blood lead level (EBL) child's residence and are found in the Lead Abatement Work Practice Standards 19 CSR 30-70.630.

(J) Confirmatory blood lead test is a test for blood lead levels performed by venous blood sample.

(K) Department refers to the Missouri Department of Health and Senior Services (DHSS).

(L) Director refers to the Director of the Missouri Department of Health and Senior Services.

(M) Elevated blood lead (EBL) refers to a venous blood lead test result as defined by the Centers for Disease Control and Prevention. It is the minimum level at which specific medical and public health actions shall be followed to reduce the blood lead level to protect the health of the individual and prevent further harmful effects. The term is used interchangeably with the terms "lead poisoning" and "level of concern."

(N) EBL environmental risk assessment refers to an on-site investigation of the residence or other sites where a child having elevated blood lead levels as set forth in the current "MDHSS Lead Manual" spends more than ten (10) hours a week, in order to determine the existence, nature, severity and loca-

tion of lead hazards that are most likely the source of the elevated blood level in the child, and the report by the person conducting the risk assessment explaining the results of the investigation and options for reducing lead hazards. A trained person holding a valid Lead Risk Assessor License from the Missouri Bureau of Lead Licensing must perform an EBL environmental risk assessment.

(O) Follow-up blood lead testing refers to a blood lead test performed by venous sample either as confirmation of an elevated blood lead test result or those to be performed at intervals following a confirmed elevated blood lead test result. The intervals are described in the Childhood Blood Lead Testing and Follow-Up Guidelines and found in the current "MDHSS Lead Manual."

(P) Geographic area refers to any area that is easily identified by established or recognized boundaries and designated by the department for purposes of establishing high-risk or non-high-risk areas for lead poisoning.

(Q) Lead poisoning refers to any level of lead in the blood, but is most frequently used as the level at which specific health effects may occur, initiating specific health care and prevention steps. See Elevated Blood Lead.

(R) Lead poisoning case management refers to the collaborative process that assesses, plans, implements, coordinates, monitors and evaluates options and services to meet the health needs of an individual with lead poisoning to effectively reduce their lead level by using communication and available resources to promote quality, cost effective outcomes.

(S) Level of concern refers to the lead level in the blood at which specific health effects may occur and therefore specific health care and prevention steps should be initiated. The term is interchangeable with the terms "elevated blood lead (EBL)" and "lead poisoning."

(T) Minimum sample size refers to a quantity determined by a statistical formula, that incorporates acceptable sample error, desired confidence level and the size of the population universe of the population or area in question. The resulting sample size number, if confidence level and sampling error factor are selected appropriately, will provide very close results to reality in a population of samples, to allow confidence in a random sample selection representative of the real population. The formula used is:

$$n = (pq)/[(E/Z)^2 + (pq)/N]$$



<u>Definitions</u>	<u>Value</u>
n = sample size	the calculated value
p = attribute %	0.12 (% children tested)
q = 1 - p	0.88
E = sampling error	0.03 (3%)
Z = numeric value of STD confidence level	1.96 (95%)
N = size of universe	Area specific population

(U) Missouri Department of Health and Senior Services (MDHSS) current "Lead Manual" is incorporated by reference in this rule, and refers to a department document that outlines procedures and guidelines for testing of the population and follow-up steps when a child has been identified with an elevated blood lead level.

(V) Patient lead information questionnaire refers to a series of questions that have been selected by the department in collaboration with the Department of Social Services, Division of Medical Services to determine whether there is a high risk for lead poisoning and are based on knowledge of the commonly known hazards that expose persons to lead poisoning.

(W) Reliable data refers to the data for a geographic area that meets the standards necessary for determining accurate testing percentages which are: at least a minimum sample size tested annually for three (3) consecutive years and at least ninety-five percent (95%) of EBL and ninety percent (90%) of non-EBL with residential identification.

(X) Treatment refers to medical or health intervention procedures required in order to follow an identified elevated case of lead poisoning for the purposes of lowering and maintaining the blood lead level at or lower than the level of concern for an individual. The procedures and techniques may include but may not be limited to: case management, follow-up blood testing, medical management including chelation therapy, visits to the home by the nurse, education for improved health behavior (hygiene, improved cleaning techniques and improved nutrition), and social service intervention.

(2) Criteria Designating Geographic Areas as High-Risk for Lead Poisoning.

(A) High-Risk Criteria. High-risk determination in geographic areas determined by the department shall be based on the following criteria using the most current data, minimum sample size testing numbers meeting standards for residential identifiers, percent of pre-1950 housing and recent lead poisoning prevalence data for each area:

1. An area that meets the guidelines for designation of high-risk as set forth in Appendix A, included herein; or

2. An area that incorporates a currently operating lead mine, mill or smelter factory and/or a historically operated lead mill or smelter factory until it can be demonstrated that the prevalence rate of lead poisoning of children in the area or parts of the area meet the non-high-risk standards outline in subsection (2)(A) of this rule.

(B) Publishing of Areas. The department shall publish annually by April 1 (beginning April 1, 2004 or within ninety (90) days of the effective date of this rule, whichever is earlier) a listing of designated high-risk geographic areas, based on the childhood blood lead testing data from the most recent calendar year and other newly published official data as mentioned in paragraph (2)(C)1. of this rule. Each annual listing will be made available on the DHSS website.

(C) Reconfiguring Geographic Areas.

1. At the time of the annual lead data analysis described in subsection (2)(A) of this rule, the department will make efforts to reconfigure geographic areas into smaller areas, where at all possible, based on available census data, official population estimates, meeting acceptable margins of residential identification error for all lead tested children, new technology or software making it possible to accurately identify smaller areas, or an acceptable data-substantiated proposal made by a local health agency, as described in paragraph (2)(C)2. of this rule.

2. A local health agency may propose reconfiguration of the size or distribution of its high-risk areas, by submitting the proposal to the department by January 1 of each year. Supporting evidence must accompany the proposal. If the department adopts the proposal, it will be published in the annual listing.

(D) Maintenance or Change of High-Risk Status. High-risk status may be maintained or changed based on test results of a minimum sample size number of children in the geographic area during each of the previous three (3) consecutive years; and test results that have residential identifiers for ninety-five percent (95%) of the EBL children and no fewer than ninety percent (90%) of the non-EBL children during the same three (3) years and meet the high-risk criteria of subsection (2)(A) of this rule.

(E) Redesignation of Area Risk Status. The department may redesignate a previously designated high-risk geographic area, either totally or in part, as non-high-risk for lead poisoning, or conversely, a previously designated non-high-risk geographic area may be

redesignated, either totally or in part, as high-risk for lead poisoning based on the criteria in subsection (2)(A) of this rule or other new substantiated evidence.

1. Smaller geographic areas must be defined by easily recognized boundaries that are approved by the department such as, but not limited to, census tracts, city blocks, or a defined distance from a known lead hazard.

2. A local health agency may propose a redesignation of area risk status, by submitting the proposal to the department by January 1 of each year. Supporting evidence must accompany the proposal. If the department adopts the proposal, it will be published in the annual listing.

(3) Assessment and Testing for Lead Poisoning.

(A) Areas Designated High-Risk. In areas designated high-risk for lead poisoning by the department, every child age six (6) months through seventy-two (72) months of age who are residing in such an area, shall be blood tested once annually for lead poisoning and according to other provisions pursuant to 701.340-701.344, RSMo except as in subsection (4)(B) of this rule.

(B) Areas Designated Non-High-Risk. In areas designated non-high-risk for lead poisoning by the department, every child six (6) months through seventy-two (72) months of age spending more than ten (10) hours a week in areas identified high-risk for lead poisoning by the department, shall be blood lead tested annually. All other children six (6) months through seventy-two (72) months of age shall be assessed annually by the patient lead information questionnaire found in the current "MDHSS Lead Manual" and blood lead tested according to subsection (3)(D) of this rule or other provisions pursuant to 701.340-701.344, RSMo except as in subsection (4)(B) of this rule.

(C) Federal Program Guidelines. If children less than seventy-two (<72) months of age reside in an area designated non-high-risk for lead poisoning and are members of a program covered by federal guidelines that include lead risk assessment by questionnaire or by blood lead testing requirements, they shall be assessed by questionnaire or blood lead tested at the ages stipulated by the federal program guidelines except as in subsection (4)(B) of this rule.

(D) Positive Response Testing. A positive response to any question on the childhood patient lead information questionnaire shall require the performance of a blood lead test within a period described in the current "MHDSS Lead Manual," except as in subsection (4)(B) of this rule.

(4) Written Evidence of Testing or Refusal.

(A) Testing. Written evidence of a blood lead test on a child that is less than seventy-two (<72) months of age shall be provided to the parent or guardian by the licensed professional prescribing the test. The evidence shall include the name of the child, the child's date of birth, the type of test sample that was taken, the date the sample was taken, and the signature and address of the licensed professional prescribing the test.

(B) Refusal of Blood Lead Testing. If a child less than seventy-two (<72) months of age is identified as being at risk for lead poisoning for any reason and the parent or guardian refuses the performance of a blood lead test, they shall do so in a written statement. Only the parent or guardian of the child may refuse the blood lead test. The written refusal statement shall become a part of the child's medical record and shall include the child's name, reason for refusal, date of refusal, full residential address including the zip code of the parent or guardian refusing the test, the relationship of the parent or guardian to the child, and that the parent or guardian was informed of the long-term health risks of refusing blood lead testing.

(5) Blood Lead Testing.

(A) Blood Test Types. Blood lead testing shall be performed by obtaining a capillary or venous sample.

(B) Methodologies. Both capillary and venous sampling shall follow blood collection methodologies as described in the current "MDHSS Lead Manual."

(C) Confirmation Test. Capillary blood sampling results identified at or above the level of concern, shall be confirmed using a venous blood sample test. All confirmatory blood lead testing, including all retesting intervals, shall be completed using venous blood according to the testing intervals listed in the Childhood Blood Lead Testing and Follow-Up Guidelines found in the current "MDHSS Lead Manual."

(D) Equipment. All samples shall be obtained using lead-free blood collection devices. Only those laboratories certified to perform blood lead analysis by the Federal Clinical Laboratory Improvement Act (CLIA) shall analyze blood samples. Health care providers submitting blood lead samples shall follow the criteria, procedures, and devices for submitting blood lead samples established by the Certified Laboratory to which they are submitting.

(6) Fee for Blood Lead Test Analysis. The State Public Health Laboratory shall charge a

fee of sixteen dollars and fifty cents (\$16.50) for each blood lead test performed by the laboratory. Such fee may be waived by the director of the Department of Health and Senior Services during an epidemiological investigation of vital importance to the public health.

(7) Follow-Up of Elevated Blood Lead Levels.

(A) Responsibility. Responsibility for implementing measures for the control and management of childhood EBL cases are referenced in 19 CSR 20-20.040.

(B) Guidelines. Guidelines for follow-up testing, treatment, case management and environmental management of EBL cases are found in the current "MDHSS Lead Manual."

(8) Reporting of Childhood Blood Lead Testing and EBL Follow-Up.

(A) Blood Lead Testing. Requirements for reporting by the medical providers, the laboratories performing the blood lead analysis and local public health agencies are found in 19 CSR 20-20.020, 19 CSR 20-20.070, and 19 CSR 20-20.080.

(B) Confidentiality. Requirements regarding the maintenance of confidentiality and release of information are found in sections 701.328(1) and (2), RSMo.

(C) Case Management. Reporting requirements of EBL case management activities for children less than the age of seventy-two (<72) months shall be as follows:

1. Responsibility.

A. A physician, a physician assistant, nurse, hospital, clinic or other private or public institution providing EBL case management for a child shall provide information regarding each case to the department or to the local public health agency.

B. The local public health agency shall forward case management information to the department using the department forms and reporting frequency guidelines as set forth in the current "MDHSS Lead Manual." Record retention policies should follow current industry guidelines.

2. Information. When a child EBL case becomes eligible for the initiation of case management activities according to the Childhood Blood Lead Testing and Follow-Up Guidelines in the current "MDHSS Lead Manual," information regarding all case management events shall be reported as described in subparagraph (7)(C)1.A. of this

rule. The case management information to be reported shall include: name of agency performing case management, patient name, date of birth, residential address including zip code, date when first diagnosed, laboratory test results, whether and when chelation therapy was initiated, interventions undertaken, dates and results of follow-up testing, date of and reason for closure of case management.

(D) Environmental Management. The state licensed Lead Risk Assessor responsible for conducting the EBL environmental risk assessment and the development of a management plan for reducing the hazards identified shall prepare reports pursuant to 19 CSR 30-70.620 using forms set forth in the current "MDHSS Lead Manual" and simultaneously provide to the department, a copy of the report sent to the property owner. A report of the date of completion of the plan, including clearance testing results, shall be sent to the department within thirty (30) days of completion of the work. If EBL is determined to be due to an environmental release of lead from a mine, mill or smelter or some other current or historical lead industry that the department will notify the Missouri Department of Natural Resources.

(9) Child Care Facility Requirements in Geographic Areas Designated High-Risk for Lead Poisoning.

(A) Enrollment. All child care facilities, as defined in section 701.344, RSMo that are located in a geographic area designated as high-risk for lead poisoning, shall, within thirty (30) days of enrolling a child, require the child's parent or guardian to provide evidence of blood lead poisoning testing performed within the previous twelve (12) months, in written format from the health care professional that administered the test, as described in 19 CSR 20-8.030(4)(A) and provide assistance to achieve blood testing as stated in 701.340-701.349, RSMo.

(B) Refusal of Testing. Parents or guardians who object to the test shall do so in a written refusal statement as stated in 19 CSR 20-8.030(4)(B).

(C) Frequency. At the beginning of each year of enrollment at any of the facilities described in 19 CSR 20-8.030(8)(A), the parent or guardian shall provide proof of testing or written statement of refusal. The evidence of testing or refusal will not be considered valid at any facility located in an area designated high-risk for lead poisoning if it is not dated within the previous twelve (12) months.



Appendix A
Guidelines For Determining High Risk
Areas for
Lead Poisoning

The table is an adaptation of the “Guidelines for choosing an appropriate screening recommendation” in *CDC Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials*, November 1997, p. 50. These guidelines were adopted by the State of Missouri Governor’s Advisory Committee for Lead Poisoning on December 17, 2001. Using census 2000 housing has dropped the national average for pre-1950 housing to 22%.

% Children ages 6-72 months with EBLs \geq 10 $\mu\text{g}/\text{dl}$¹	% Housing built before 1950²	Risk Recommendation
\geq 12%	—	High-risk
< 12% reliable data	\geq 22%	Non-high-risk
3-12 %	< 22%	% EBL children based on reliable data = Non-high-risk % EBL Children based on unreliable data = High-risk
< 3%	< 22%	% EBL children based on reliable data = Non-high-risk
Unknown	\geq 22%	High-risk
Unknown	< 22%	Non-high-risk ³

¹ $\mu\text{g}/\text{dl}$ = micrograms per deciliter

² Pre-1950 housing percentage is based on 2000 census data.

³ If an area that is designated non-high-risk because the prevalence rate is unknown and less than 22% of their housing is pre-1950, does not test the children as required by Federal Program Guidelines as described in subsection (3)(C) during a period of three (3) years, they will be redesignated as high-risk until a reliable prevalence rate can be determined.

AUTHORITY: sections 701.340 through 701.349, RSMo Supp. 2001.* Original rule filed Feb. 3, 2003, effective July 30, 2003.

*Original authority: 701.340-701.349, RSMo 2001.