



STATE OF TENNESSEE

Lead & Children's Health
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What is Lead Poisoning?



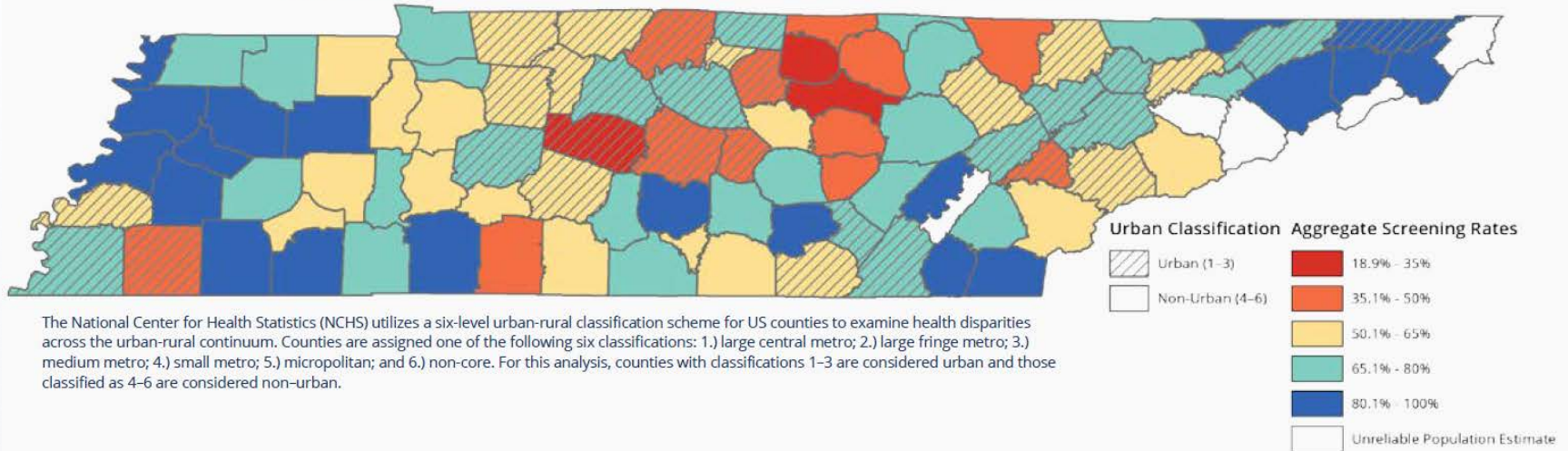
Hydrogen																Helium																					
1 H																2 He																					
1.0079																4.0026																					
Lithium				Beryllium				Boron				Carbon				Nitrogen				Oxygen				Fluorine				Neon									
3 Li				4 Be				5 B				6 C				7 N				8 O				9 F				10 Ne									
6.941				9.0122				10.811				12.011				14.007				15.999				18.998				20.180									
Sodium				Magnesium				Aluminum				Silicon				Phosphorus				Sulfur				Chlorine				Argon									
11 Na				12 Mg				13 Al				14 Si				15 P				16 S				17 Cl				18 Ar									
22.990				24.305				26.982				28.086				30.974				32.065				35.453				39.948									
Potassium		Calcium		Scandium		Titanium		Vanadium		Chromium		Manganese		Iron		Cobalt		Nickel		Copper		Zinc		Gallium		Germanium		Arsenic		Selenium		Bromine		Krypton			
19 K		20 Ca		21 Sc		22 Ti		23 V		24 Cr		25 Mn		26 Fe		27 Co		28 Ni		29 Cu		30 Zn		31 Ga		32 Ge		33 As		34 Se		35 Br		36 Kr			
39.098		40.078		44.956		47.867		50.942		51.996		54.938		55.845		58.933		58.693		63.546		65.38		69.723		72.63		74.922		78.96		79.904		83.80			
Rubidium		Strontium		Yttrium		Zirconium		Niobium		Molybdenum		Technetium		Ruthenium		Rhodium		Palladium		Silver		Cadmium		Indium		Tin		Antimony		Tellurium		Iodine		Xenon			
37 Rb		38 Sr		39 Y		40 Zr		41 Nb		42 Mo		43 Tc		44 Ru		45 Rh		46 Pd		47 Ag		48 Cd		49 In		50 Sn		51 Sb		52 Te		53 I		54 Xe			
85.468		87.62		88.906		91.224		92.906		95.94		98		101.07		101.07		106.42		106.905		112.41		114.82		118.710		127.46		127.60		126.905		131.29			
Cesium		Barium		Lanthanum		Cerium		Praseodymium		Neodymium		Promethium		Samarium		Europium		Gadolinium		Terbium		Dysprosium		Holmium		Erbium		Thulium		Ytterbium		Lutetium		Hafnium			
55 Cs		56 Ba		57-70 *		71 Lu		72 Hf		73 Ta		74 W		75 Re		76 Os		77 Ir		78 Pt		79 Au		80 Hg		81 Tl		82 Pb		83 Bi		84 Po		85 At		86 Rn	
132.91		137.33		57-70 *		174.927		178.49		180.948		183.84		186.21		190.23		193.22		195.08		196.967		200.59		204.38		208.98		209		210		210		222	
Francium		Radium		89-102 **		103 Lr		104 Rf		105 Db		106 Sg		107 Bh		108 Hs		109 Mt		110 Uun		111 Uuu		112 Uub		114 Uuq		116 Uuq		118 Uuo		120 Uuq		122 Uuq		124 Uuq	
87 Fr		88 Ra		89-102 **		103 Lr		104 Rf		105 Db		106 Sg		107 Bh		108 Hs		109 Mt		110 Uun		111 Uuu		112 Uub		114 Uuq		116 Uuq		118 Uuo		120 Uuq		122 Uuq		124 Uuq	
223		226		89-102 **		261		261		262		263		264		265		266		267		268		269		270		271		272		273		274		275	

* Lanthanide series										
Lanthanum	Cerium	Praseodymium	Neodymium	Promethium	Samarium	Europium	Gadolinium	Terbium	Dysprosium	Holmium
57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho
138.91	140.12	140.91	144.24	[145]	150.36	151.96	157.25	158.93	162.50	164.93
** Actinide series										
Actinium	Thorium	Protactinium	Uranium	Neptunium	Plutonium	Americium	Curium	Berkelium	Californium	Einsteinium
89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es
227	232.04	231.04	238.03	237	244	244	247	247	251	252
Fermium										
100 Fm	101 Md	102 No								
257	258	259								

- Lead is a naturally occurring element found in small amounts in the Earth's crust.
- 25% of absorbed lead is in the blood, the other 75% ends up in the structures of the body.

Lead Poisoning Levels

Aggregate Screening Rate by County, Tennessee, 2016-2020



The National Center for Health Statistics (NCHS) utilizes a six-level urban-rural classification scheme for US counties to examine health disparities across the urban-rural continuum. Counties are assigned one of the following six classifications: 1.) large central metro; 2.) large fringe metro; 3.) medium metro; 4.) small metro; 5.) micropolitan; and 6.) non-core. For this analysis, counties with classifications 1-3 are considered urban and those classified as 4-6 are considered non-urban.

- During 2016–2020, non-urban children were 42% more likely to receive lead screening and were 16% more likely to have an elevated blood lead level.
- During the child’s well checks at 1 years old and 2 years old a routine screening of lead in the blood should be done.

Children's Exposure to Lead



- In utero
- Ingestion
- Inhalation

Symptoms

Initially, symptoms of lead poisoning can be hard to detect. Signs and symptoms usually don't appear until dangerous amounts have accumulated.

Headaches, irritability, loss of appetite, weight loss, sluggishness and fatigue, abdominal pain, vomiting, hearing problems, anemia, kidney problems, constipation and learning difficulties.

Babies who are exposed to lead before birth may show signs of lead poisoning. Symptoms in newborns include Learning difficulties and slowed growth.

Adults Exposure



- Spending time in areas where lead-based paint is deteriorating.
- Working in a job or engaging in hobbies where lead is used, like stained glass.
- A pregnant woman's exposure can result in exposure to her developing baby.

What to do?

- Prevention:
 - Know about the sources of lead in your home.
 - Know the year your home was built. Interior plumbing installed before 1930 could contain lead. Homes built before 1978 might have been painted with lead-based paint.
 - Discourage chewing and regularly wash the hands and face, especially before meals.
 - Cleaning the home.
 - Planting grass and shrubs over areas of bare soil in the yard.
 - Make sure kids eat foods high in calcium, iron, and Vitamin C.
 - Treatment options are limited, contact your Doctor if you have a concern of lead exposure.



Contact Information

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THANK YOU