



# Community Environmental Resource Program

Serving the St. Louis and East St. Louis Communities

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## Government to Replace Contaminated Soil at Homes and Businesses in East St. Louis

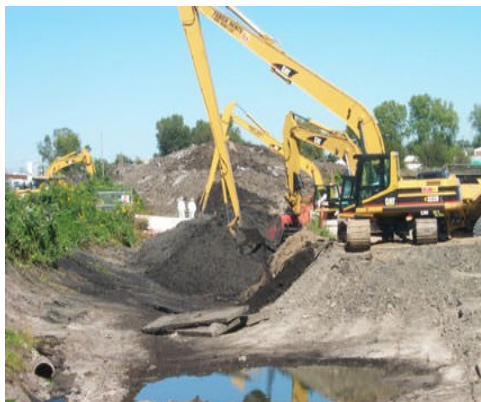
The U.S. Environmental Protection Agency notified dozens of East St. Louis residents in August that their yards are contaminated with dangerous levels of lead. Officials say that contamination was also found on property near two schools - Lillie Freeman and A. M. Jackson - but that high levels of lead were not found in school yards. The federal agency plans to remove the soil soon from about 100 sites in East St. Louis - some of them businesses and some of them homes. Replacement soil, free of lead or other dangerous chemicals, will be brought in.

Included as an insert to this newsletter is a map of East St. Louis. Highlighted on the map are the locations of 20 historical industrial sites across the city that the EPA suspects may have contributed to high lead levels in the community.

The lead contamination was caused, at least partially, by the old factories and industrial facilities in East St. Louis. Many of them have been shut down and abandoned for years. Residents who live near these suspected sources of lead pollution are encouraged to contact the EPA. EPA

officials will be able to help residents with high levels of lead in their yards deal with the problem.

The entire lead removal project could take six months to a year to complete, depending on how severe



the weather is this winter. Officials will have to dig more than 2 ½ feet deep to remove the lead contaminated soil. EPA has secured over \$500,000 to test the industrial and residential properties and over \$2.5 million to clean up the contaminated properties.

### ***What brought about this action?***

Because of community concerns, the EPA provided funding for the Illinois Department of Health to test

50 sites across East St. Louis. Officials at St. Mary's Hospital were troubled when they discovered unusually high blood-lead levels in children as old as 16. Early results showed that 12 percent of those tested had blood-lead levels that exceeded the "safe" limit of 10 parts per million parts of blood. That's three times the average for most children and slightly above the average for kids tested in St. Clair County.

Usually, children younger than six are more likely to get lead poisoning because of chipped paint inside their homes (little kids are more likely to eat paint chips). When teenagers were poisoned, officials at St. Mary's started to suspect the soil near the children's homes might be contaminated with lead.

If you live near or within a one mile radius of one of the 20 industrial facilities identified on the map and would like to have your yard sampled to ascertain if lead exists, please contact Noemi Emeric, US EPA at 1-800-621-8431, ext. 60995, [emeric.noemi@epa.gov](mailto:emeric.noemi@epa.gov), or CERP at 1-618-274-2750, ext. 236.

# Are There Any Alternatives to Soil Removal?

If the soil around a business or a home is contaminated with lead, the surest way of preventing lead poisoning is to dig up the dirt and haul it away. But this is expensive and time consuming! Are there other alternatives?



## Can plants be used to get the lead out?

One cost-effective way of getting the lead out of soil - without removing the lead - is called “phytoremediation.” This process uses plants to absorb lead and other heavy metals out of the soil and into their roots. The lead eventually moves up into the plant’s leaves. The plants can then be harvested and properly disposed of. After about two harvests, contaminated soil can be cleansed to much safer levels of lead.

So far, experiments suggest that the best results occur in soil with low



levels of contamination at shallow depths. Researchers are finding that

the use of trees (instead of small plants) allows them to treat deeper contamination because the roots penetrate more deeply into the ground.

The plants most appropriate for phytoremediation are: Indian and white mustard greens, Sudan grass, and sunflowers. In addition to lead, phytoremediation can also be used to clean up pesticides, solvents, explosives, and oil.

## Sewer Sludge to the Rescue?

A new method of treating lead-contaminated soil is being tested in a vacant lot in East St. Louis. The area was contaminated by the former industry which resided on the property years ago, Western Forge Works. Instead of just digging up the soil and trucking it away, this radically new method attempts to make the lead that is in the soil harmless by “locking” it into the dirt through “bio-solids.” In this case, bio-solids is a fancy way of describing yard waste and sewer sludge!

The sludge-compost mix that is tilled into the contaminated ground is full of iron and phosphorus (minerals that are not harmful to people). This iron-phosphorus mix will prevent the human body from taking in the lead. Though the lot will be closed off to the public, if people - particularly children - get some of the lead contaminated dirt in their mouths, the lead will just pass through their bodies and not be absorbed. Without this iron-phosphorus mix, lead poisoning would occur.

The program is being run by the Southwestern Illinois Resource, Conservation and Development - a nonprofit research group based in Mascoutah, Illinois. The bio-solids approach could provide property owners with an effective way of dealing with lead contamination that is a lot cheaper than the traditional method of digging the dirt up.



## Lead-Safe Yard Project

Another way of treating lead contaminated soil - especially around residential homes - involves innovative landscaping. A small pilot program is about to get started in the region called the “Lead Safe Yard Project.” The pilot project will involve about 30 homes in the East St. Louis area. It provides a possible low-cost simple solution to the problems caused by lead contaminated soil.

The project will be coordinated by the Neighborhood Technical Assistance Center in East St. Louis.

Researchers and volunteers will help reconfigure and re-landscape the yards around these homes to limit exposure to lead contaminated soil. This includes doing things like: adding or rearranging bushes, shrubs, or stones in yards to mini-

mize contact with dirt and redirecting downspouts away from much traveled areas.

When removing lead contaminated soil is impractical, limiting human exposure to the soil - through such a program - may be the next best alternative.



# Why Should I Care About Lead Poisoning?

Most homes built before 1978 have some type of potential lead exposure problem. This can take the form of lead-based paint on surfaces, old lead water piping, or even lead contamination of the soil in your yard.

Young children are very susceptible to lead poisoning due to their hand to mouth activity. They tend to put almost any object in their mouths, and if it has a sweet taste like lead they'll keep repeating the process.



## Do You Know How Much Lead is TOO Much Lead?????

You can't know whether or not you have lead poisoning unless you get tested. In kids, a blood level of **10 micrograms** per deciliter is usually considered to be lead poisoning.

## But how much is "10 micrograms"?!?

- a deciliter is about ½ cup (4 ounces).
- a packet of sweetener (pink or blue stuff) is 1 gram.
- there are one million micrograms in a gram! Imagine separating your sweetener packet into a million parts!!

An amount of lead equal to 10 of these micrograms for every ½ cup of blood is all that it takes to cause lead poisoning!

**It takes an incredibly small amount of lead to poison the body!**

## What's the Harm in Lead?

A blood lead level as low as 10 micrograms per liter (see box at left) in your child's blood is considered lead poisoning. At and above this level a child can suffer mental and physical health problems such as learning disabilities, high blood pressure, and kidney damage.

## Did You Know....

The state of Missouri just recently passed a law requiring all kids under six living in high-risk areas to be tested for lead poisoning. In Illinois, this has been on the books since 1993. Since 1993 physicians and other health care providers have conducted 1.8 million lead tests and reported about 90,000 children with elevated lead levels. The numbers of elevated and normal test results are used by the Department of Public Health to identify areas where effort is needed to combat lead poisoning.

## What Can I Do to Protect My Family?

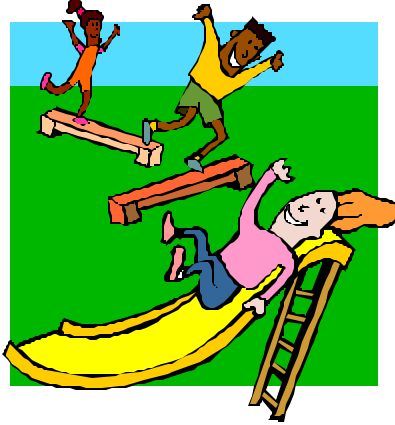
You have a number of options to limit or virtually eliminate the potential of your family being exposed to a lead hazard. The extent to which you can completely eliminate any potential hazard is somewhat limited by how much you can afford to pay. Professional companies are available who can remove the lead or cover (encapsulate) it which is obviously the best way to go if you have the money.

The simplest and least expensive way to limit exposure in your home is to clean the most obvious possible sources of potential lead contamination in your home at least monthly. You should clean up any loose paint particles and wet clean household surfaces with a lead specific detergent or all pu-

pose non-abrasive cleaner. The use of spray cleaner and paper towels is recommended, but if you use a water/detergent solution, be sure to dispose of waste water by flushing it down your toilet, not down the kitchen sink. Never re-use cloth or paper towels that may possibly spread the contamination, and make sure to dispose of all waste materials in sealed plastic bags. Remember to properly protect yourself while cleaning by using a lead rated face mask and disposable clothing if possible. Should you desire to do removal or encapsulation on your own, you can obtain valuable how-to information by calling the National Lead Information Center at 1-800-424-LEAD or on the web at: <http://www.epa.gov/lead/nlic.htm>

## What About Lead in My Yard?!

While crumbling lead paint in housing is generally considered the leading source of lead exposure to kids, outdoor activities where people come into contact with lead contaminated soil also represent a way people can become exposed to dangerous levels of lead. When kids play outside, lead contaminated dirt and dust can get on hands, clothes, toys, and food.



Kids can also breathe lead dust or lead contaminated dirt stirred up by the wind or by outdoor play. When it is dry, dust from bare patches of contaminated soil can get into the air, increasing the chance that it will be inhaled. This dust can get on clothes and shoes and can be tracked into the house. Pets, as well, can track lead-contaminated dirt into houses.

### Did You Know....

The use of lead in gasoline was phased out during the 1970s and banned in the U.S. in 1986. It has been estimated that 4 to 5 million metric tons of lead, coming out of cars as fine dust particles, remain in the environment in dust and soil.

Lead levels in soil around roadways are much higher than natural levels. Some researchers have found that lead levels are highest in older, inner-city neighborhoods near traffic routes and that soil lead levels decrease with distance from the city center.

## Why Are Kids More at Risk?

Young kids tend to swallow more lead than adults because kids are more likely to put their hands in their mouths. The most common way for children to swallow lead is by putting their hands or toys that have lead contaminated dirt on them in their mouths. A kid also may put his or her mouth on surfaces having lead-based paint (such as window sills) or he or she may eat lead-paint chips or soil. Kids may also ingest lead if their drinking water contains lead, usually from

lead-containing pipes, faucets, and solder in plumbing of older buildings.



Lead-based paint in older homes is the primary cause of childhood lead poisoning in the United States.

In addition to absorbing a greater rate of the lead to which they are exposed, kids also tend to keep a greater amount of lead in their blood, compared to adults. Part of the reason for this is because a child's body is not as good as an adult's at absorbing lead into mineralizing tissue (like bones and teeth). As a result, a greater amount of the lead in a kid's body will remain in the bloodstream and have a poisonous effect on internal organs.

## Can My Family Be Tested?

Absolutely! In St. Louis you can contact the Health Department at (314) 612-5460 for lead poisoning and blood testing information if you suspect a problem. If you live in East St. Louis, you can contact the St. Clair County Health Department at (618) 233-7769, the East Side Health District at (618) 271-8722, or St. Mary's Hospital at (618) 482-7093 for lead blood testing information. Early detection along with proper care and treatment can reduce or eliminate future health problems.

# Lead Programs in East St. Louis

## Blood Screenings

In keeping with Illinois' requirement that all children be tested for lead, most clinics routinely include this screening procedure. Results are sent to the Illinois Department of Public Health, where they are entered into a database. The following are two agencies that perform blood lead screenings in East St. Louis.

St. Mary's Hospital  
Attn: Tony Comillo  
129 North Eighth Street  
East St. Louis, IL 62201  
phone: (618) 482-7093

East Side Health District  
Attn: Kim Walker, R.N.  
650 North 20<sup>th</sup> Street  
East St. Louis, IL 62205  
phone: (618) 874-4713

## Home Inspections

When a child has an elevated blood lead level of 20 ug/dL (micrograms per deciliter) or higher, the results are sent to the Illinois regional office at the Department of Public Health located in Edwardsville. A home inspection is then conducted and the results are forwarded back to the state for entry to the Stellar Database, and to the East St. Louis Health District.

- These inspections are conducted by Illinois Dept. of Health inspectors from the regional office in Edwardsville after being informed of a child having a blood lead level at or above 20 ug/dL (micrograms per deciliter).
- The results of these inspections are sent to IDPH (Illinois Dept. of Public Health) in Springfield, and the East Side Health District, where "lead buster" kits and educational materials are provided to homes where lead contamination is determined to exist.
- To inquire into lead testing, home inspections and possible remediation contact the Illinois Dept. of Public Health (618) 656-6680, or access their web site at [www.idph.state.il.us](http://www.idph.state.il.us)
- Or, you can contact the East Side Health District at (618) 271-8722, or access their web site at [www.eshd.org](http://www.eshd.org)

## Lead Safe Home Repair Program

The Department of Housing and Urban Development has awarded a grant that will allow up to 75 homes to be improved and made lead free. The program is administered by the East St. Louis Community Development Block Grant Operations Corporation. The grant is a follow-on to previous HUD grants that assisted 53 homes.

- Information regarding this program can be obtained by contacting the CDBG (Community Development Block Grant Corp.) at (618) 482-6643 and ask for Christine Anderson.
- By mail, you can send your request to:  
CDBG  
Attn: Christine Anderson  
East St. Louis Municipal Building  
301 River Park Drive, 3<sup>rd</sup> Floor  
East St. Louis, IL 62201-3022
- Or E-mail: [ecldbg@primary.net](mailto:ecldbg@primary.net)
- A program exists at the St. Clair County Intergovernmental Grants Department to access help for weatherization of homes. You can call Dan Seiber at (618) 277-6790 Ext.3251 or request information by writing to:  
St. Clair County Intergovernmental Grants Dept.  
Attn: Don Seiber  
#19 Public Square, Suite 200  
Belleville, IL 62220

## Lead in Soil Program

The Illinois Department of Public Health (IDPH) has a program to collect soil samples in East St. Louis. A report was published in 1995; another is in preparation.

- The results of the 1999/2000 soil sampling are not yet completed but should be available by early 2002.
- To receive a copy of this report contact Dave Webb at (618) 656-6680 or you can write to:  
IDPH  
22 Kettle River  
Glen Carbon IL 62034

# Who Are We? How Can You Contribute?

The Community Environmental Resource Program (CERP) was launched in September, 2000 to provide needed environmental information to the people of St. Louis and East St. Louis. CERP is funded through the Environmental Protection Agency's EMPACT program - a national initiative aimed at providing communities across America with better access to information about the environment.

The program's goal is to empower citizens with information about potential environmental hazards. We want to become the community's leading source for environmental information!

CERP cannot do this without the help of the community. If you have any questions, comments, or suggestions, please contact us. **Is there an area of concern that you would like us to address?? Just let us know!**

## Where Can I Get More Information?

### St. Louis

|  |                |
|--|----------------|
| Lead Prevention Coalition                | (314)214-8006  |
| Missouri Department of Health            | (573) 751-6400 |
| Missouri Department of Natural Resources | 1-800-334-6946 |
| St. Louis Health Division                | (314) 658-1054 |

### East St. Louis

|   |                |
|---|----------------|
| East St. Louis Lead Collaborative Partnership | (618) 482-7074 |
| St. Mary's Hospital                           | (618) 274-1900 |
| Illinois Environmental Protection Agency      | (217) 524-1321 |
| Illinois Department of Public Health          | (217) 782-4977 |
| St. Clair County Health Dept.                 | (618) 233-7769 |

|                                      |                |
|--------------------------------------|----------------|
| U.S. Environmental Protection Agency | 1-800-424-LEAD |
| EPA's Environmental Action Line      | 1-800-223-0425 |

Phone: (314) 421-4220 ext. 236 / (618) 274-2750 ext. 236 Fax: (314) 231-6120 Email: [cerp@ewgateway.org](mailto:cerp@ewgateway.org)  
Website: <http://stlouis.missouri.org/cerp/>

### Serving the St. Louis and East St. Louis Communities



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