

Understanding Pollution: Don't Compromise on Lead

Growing up I remember hearing my parents talking about the dangers of lead paint, and making sure that my Christmas gifts didn't contain any lead. Now, I was learning about metals in school, and my young mind couldn't understand why my parents were so concerned about a naturally occurring metal. As I have been writing articles about pollution, that memory came back to me, and I decided that I should take some time to find out what the big deal is with lead. What I found kind of shocked me. I knew that lead had a detrimental effect, but I didn't realize how much of an issue it was. In fact, it is such a big issue that Congress in 2013 is still passing legislation dealing with lead from remodeling of homes that were built before 1978.ⁱ



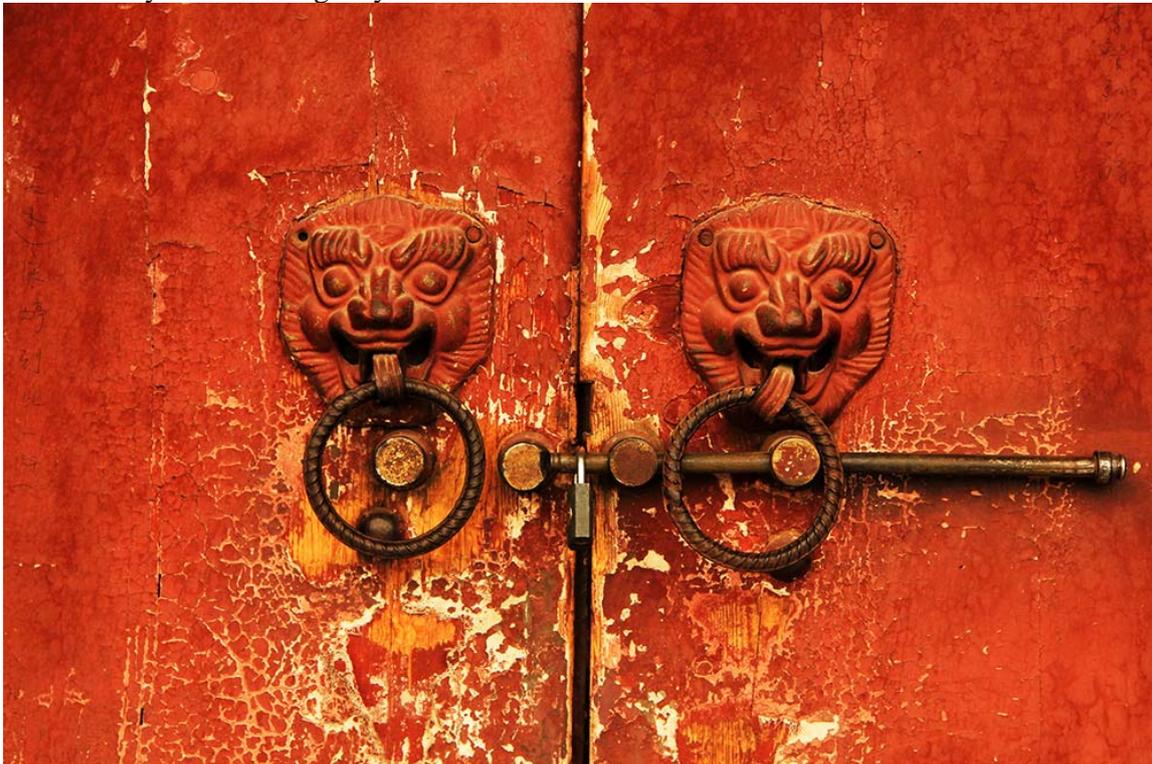
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143,000 people die annually, and over 600,000 children develop intellectual disabilities every year due to lead poisoning.ⁱⁱ Those are some seriously high numbers which just go to show how truly dangerous lead is to the human body. Lead impacts the body by disrupting oxygen and calcium transportation within the body, and by altering nerve transmission within our brains.ⁱⁱⁱ The lead then builds up in our kidneys, bone marrow, bones, teeth, brains, and livers where it continues to have negative effects on our bodies.^{iv} There are many symptoms to lead exposure, and some of the early signs are quite severe in and of themselves. They include insomnia, a reduced attention span, loss of appetite, persistent fatigue and irritability, and stomach discomfort and constipation.^v As you can imagine, even the early signs of lead poisoning can be quite debilitating. Imagine not sleeping for days while not

eating, and being constipated. You'd be in a lot of pain I would think. Then you come to the truly serious effects of lead, which as mentioned above kill almost 150 thousand people a year. If the effects of lead poisoning are not immediately lethal than other effects in adults include poor muscle coordination, nerve damage targeted specifically to the sensory organs and nerves that control the body's muscles, increased blood pressure, loss of hearing and vision, reproductive problems including a reduced sperm count, and retarded fetal development.^{vi}

As is often the case, the children suffer the most because they tend to absorb lead more easily into their bodies, and because their minds are developing, are more likely to suffer cognitive impairments.^{vii} Children who intake lead into their systems often suffer damage to the brain and nervous system, behavioral problems, anemia, damage to the liver and kidneys, loss of hearing, developmental delays, and are more likely to intake a fatal amount of lead.^{viii} The effects that lead have on the body are not something to play around with, and if you suspect that you or your family member are suffering from lead poisoning you should go immediately to the Emergency Room.



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There are quite a few sources of lead that we interact with every day. Luckily, Congress recognized the dangers of lead back in the 1970s and made some moves towards limiting its impact on us all.^{ix} However, lead is very difficult to get rid of. For example, in 1996 lead was banned from use in gasoline, but there is still lead in soil all around the country that goes back to 96 and before.^x Lead can still be found to this day in paint in homes built before 1978, and in the pipes that supply drinking water to homes built before 1986.^{xi} It is estimated

that 19 million homes contain lead based paint.^{xii} Lead is also present in the air from industrial sources such as smelters, incinerators, and battery production facilities.^{xiii} Other sources include lead-glazed ceramics, china, leaded crystal and pewter, firearms that use lead bullets, imported candies, and imported food cans, and lead dust mainly from flaking paint; which by the way is not always visible to the naked eye.^{xiv} These are just some of the more common sources of lead, but there are others. Lead is a naturally occurring metal, so there is quite a bit of it in our world.

The best way to deal with lead is to have your home checked to make sure that your pipes, paints, and other building materials contain no more than the acceptable levels of lead. You can buy a do-it-yourself testing kit, but if you are planning on doing any remodeling, or you don't trust do-it-yourself kits and want a professional, you will need to have an EPA certified tester come and test your home. He will take paint, dust and soil samples to test for the level of lead, and he will be able to tell you if your home is safe or not.^{xv} A tester coming out to your home will cost somewhere around \$300-\$400, which isn't bad especially if you have young children and really want peace of mind.^{xvi} *Hepa* air filters are also a good investment, since they are powerful enough to pick up lead in the air.^{xvii}

Lead is a serious issue as more and more people are starting to realize. The number of people that are affected by lead every year is truly astounding, and the number of homes that could one day cause problems for their inhabitants is also overwhelming. All you can do is take precautions. Money may be tight, but you can't put a price on peace of mind, so have an inspector come out to your home, or buy a testing kit especially if you have children. Growing up several of my cousins were autistic, so I know how truly heartbreaking it can be to watch children with developmental issues grow up in a world where people don't understand them. It's not something I wish on anyone, and the parents who raise those children deserve a medal. Growing up is hard enough without having to worry about something like lead forever changing the course of a child's life.

About the Author



Dominick Principe is a graduate of Rowan University with dual Bachelor Degrees in Elementary Education and Writing Arts. He is a prolific reader who devours any book put before him, and feels that life is one great long book without an end. He fills his hours constantly exploring new information, and seeking to educate himself in the ways of the world. He puts all of that knowledge and his passion for learning to

good use teaching English as a second language to students of all ages. When his nose isn't buried in a book, or in class teaching, then he can generally be found typing away at his computer working on some random piece of writing that he was inspired to do.

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