

My name is Deborah Moss and I am a practicing pediatrician in Pittsburgh for over 25 years. Among other roles, I participated in the Allegheny County Lead Task Force in 2017 commissioned by then County Executive Fitzgerald. So I thank you for the opportunity to speak about the impact of lead exposure on children's health.

**1. Numerous studies have shown that lead has negative, irreversible health effects on every part of the body and can affect anyone.**

- Lead is a neurotoxin, meaning it's a toxin that affects the brain and nervous system. This is one reason why lead exposure has especially serious consequences for children – because of children's developing brains. Lead impairs cognition/thinking, leads to diminished intellectual abilities, and problems with learning and behavior. But lead is a neurotoxin affecting people of all ages, and extremely high levels can cause seizures and even coma, as was seen in workers at smelters in the past .
- Lead adversely affects ALL body systems – the heart, kidneys; the immune, endocrine, hematologic, and gut systems, as well as fertility.
- Poor nutrition worsens lead's effects. This is because nutrients like calcium and iron in our diet compete with lead, preventing the lead from being absorbed in our stomach. So children without adequate amounts of these nutrients, those with poor nutrition, absorb more lead in their gut. Historically, kids from low-income families were at greatest risk of poor nutrition and therefore of worse effects of lead exposure. But if any of you have children or teens, you know that many of their diets consist more of junk or fast food than nutrient-rich foods, so there are probably more children with poor nutrition and therefore greater risk of lead toxicity than we public leaders are aware of.

**2. Lead exposure comes from 3 main sources: paint, water, and soil.**

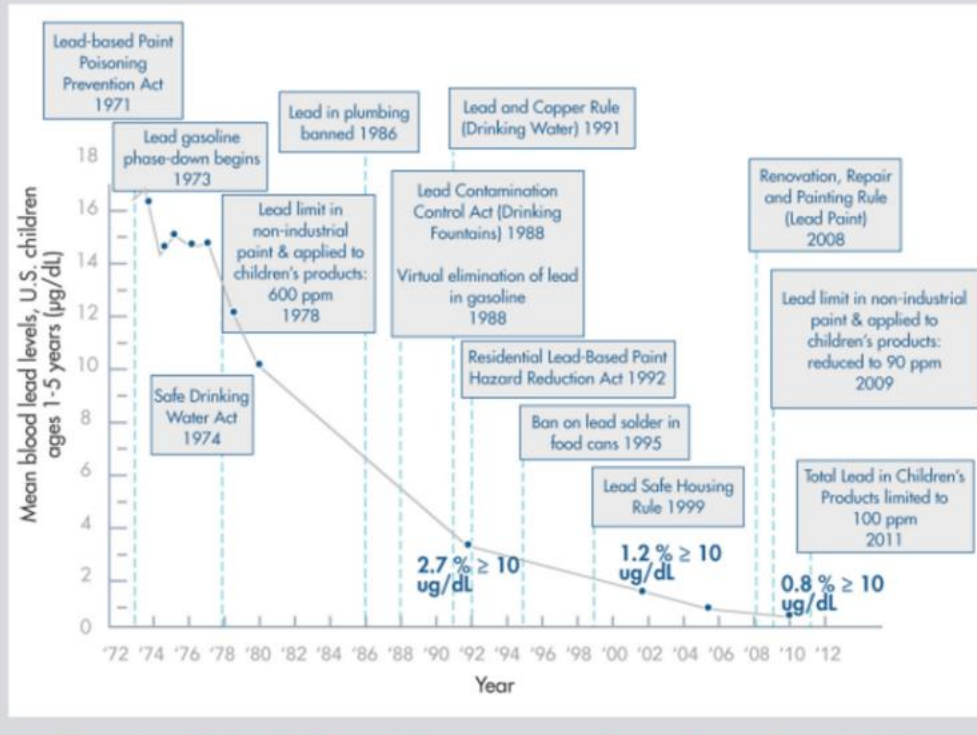
- **PAINT:** Dust from lead paint is the leading cause of lead exposure in children. PA has old housing stock, ranking 4<sup>th</sup> in the US for housing units built before 1978, the year that lead was removed from paint. Because lead does not degrade over time, lead dust is still found in houses even under many layers, where there's chipping paint or dust created from friction of windows or doors opening and closing, or from renovations and demolitions, which leaves lead dust in the **soil**.

- **Lead in soil** also comes from airborne emissions, mostly from industrial pollutants. Children are exposed to lead dust in soil that gets tracked onto the floor of houses (where children often play) or consumed from the surface of root plants grown in such soil. (that's why it's important to rinse off root vegetables before eating.)
- **WATER:** Lead is also found in water, when it flows through pipes, plumbing fixtures and solder made of lead. Prior to the 1986 federal EPA Safe Drinking Water act, most pipes and plumbing fixtures were made of lead. That act established safe drinking water criteria and required all new plumbing to be lead free. However, that and subsequent federal and state laws have failed to protect children from potential lead exposure in school drinking fountains ([Lead Contamination Control Act 1988](#), [EPA Lead and Copper Rule 1991](#), [PA Act 39 of 2018](#)) which is why SB 759 is so important. Parents deserve to know that their children are safe when being sent to school.

3. **Legislators have a huge impact on protecting the health of our citizens**, especially those most vulnerable (children). On your print-out you can see the graph showing the impact of lead prevention policies on children's lead levels over time.

SUMMARY: Lead from any source contributes to the burden of exposure and therefore needs to be reduced or eliminated. Evidence from numerous studies over the past decades has taught us, and the Centers for Disease Control and the American Academy of Pediatrics have confirmed, that **THERE IS NO SAFE LEVEL OF LEAD IN CHILDREN**. This is why it's so important to eliminate lead in the environment, especially where children live, [learn](#), and play.

## Lead poisoning prevention policies have reduced population blood levels



Source: Brown MJ and Falk H. Toolkit for establishing laws to control the use of lead paint. Module C.iii. Conducting blood lead prevalence studies. Global Alliance to Eliminate Lead Paint (2016).