

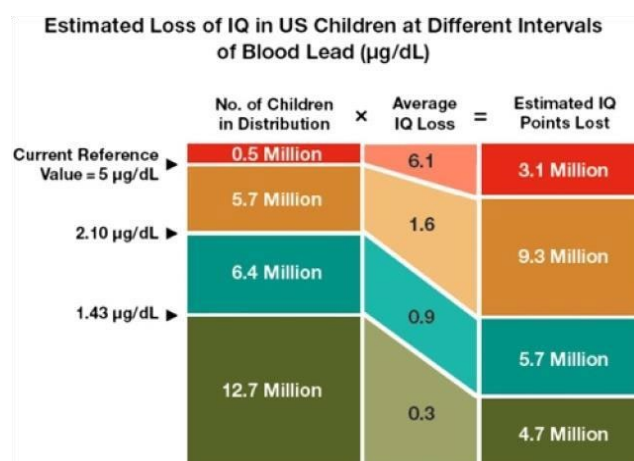
## The Hazard of Lead Exposure on Children’s Health: Prevention is Paramount

Lead is a potent neurotoxin that impairs children’s intellectual development and alters their behavior and ability to concentrate. The effects of lead exposure during childhood are permanent. There is a strong scientific consensus that any amount of lead exposure during childhood is harmful with lifelong impacts. Even the low levels of lead found in children’s blood can cause intellectual impairment and behavior problems. Adults, too, experience increased morbidity when exposed to lead; but many California families across the state are exposed to lead on a daily basis and the state must do more to prevent lead in drinking water.

### There is no safe level of lead exposure

Experts at the [American Academy of Pediatrics \(AAP\)](#), the nation’s preeminent organization representing pediatricians, and at the [Centers for Disease Control and Prevention \(CDC\)](#) have assessed the science and concluded that there is no identified threshold or safe level of lead in blood because even low levels been shown to impair cognition, affect IQ, the ability to pay attention, and academic achievement.

Even very low levels of lead exposure cause children significant long-term cognitive harm, however, “low” levels of blood lead concentration is actually quite common. For example, AAP found that “The population impact of lead on intellectual abilities is substantial” and “lead toxicity account[s] for an estimated total loss of 23 million IQ points among a 6-year cohort of U.S. children,” yet 20 million of these lost IQ points are lost by children with blood lead levels below the CDC’s threshold (see graph).



Since no therapeutic interventions currently exist for low blood lead levels, the AAP maintains that “prevention of exposure is paramount.” CDC experts also note that childhood lead poisoning is 100% preventable.

While most of the attention has rightly been on preventing children’s exposure to lead to protect their brains during critical periods of development, lead exposure is harmful to the parents and adults in children’s lives. The National Toxicology Program (NTP) also found that adults have no safe level of exposure to lead. In 2018, a team of researchers published an [important new study on the deadly impact of lead exposure for adults](#). The researchers examined data on more than 14,000 adults and found that an increase of 1 to 6.7 µg/dL blood lead was significantly associated with an increase in mortality of 37% for all-causes, 70% for cardiovascular, and 108% for [ischemic heart disease](#).

## Preventing children's lead exposure

Lead-based paint has historically been the main source of exposure for California's children, and is the primary cause of very high child blood lead levels. However, children can also be exposed to lead when handling old jewelry or certain toys, eating imported spices, or drinking lead-contaminated water.

Lead contamination of drinking water remains a problem for many communities. Water is often an overlooked source of lead exposure for children, and can make up 20% of a child's lead intake. Infants and toddlers who are formula fed ingest much more, and if a child is malnourished, the child will absorb lead faster. For these reasons, lead-contaminated water poses a serious risk to children's health. However since lead levels vary from one house to another, and lead-testing of drinking water is not widely done, it is difficult to estimate how many families have contaminated water in their homes. The AAP has recommended that "state and local governments should take steps to ensure that water fountains in schools do not exceed water lead concentrations of 1 ppb" because of the heightened danger to children of elevated water lead concentration.

In addition, aviation leaded fuel (while no longer used by larger commercial planes) is still used for smaller piston planes. [Lead dust from these emissions can be found in communities near airports, settling on the ground and other surfaces people might touch](#). Unleaded aviation fuel is a safer alternative that can protect our children.

[Nearly all \(99.2%\) of California's ZIP codes are defined as being "at risk" for childhood lead exposure, but the state has taken several steps to reduce lead in homes and in drinking water. For instance, \[child care facilities must test drinking water for lead\]\(#\), and \[building renovators will have to safely remove lead paint\]\(#\). Nevertheless, more needs to be done because \[California has not required water systems\]\(#\) to prevent lead from entering drinking water \[when they remove or repair lead-contaminated pipes\]\(#\) and children and families continue to be exposed.](#)

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**[HR 123 \(Reyes\)](#) recognizes October as Children's Environmental Health Month, and in order to raise policymaker awareness of the environmental issues threatening children's health in California, this document was prepared as part of a legislative briefing co-sponsored by:**

Children Now; Environmental Working Group; Pesticide Action Network of North America; Families Advocating for Pesticide and Toxic Chemicals Safety; Undaunted K12; Regional Asthma Management & Prevention; American Academy of Pediatrics\California; American Nurses Association, California; Breast Cancer Over Time; Brighter Beginnings; California Nurses for Environmental Health & Justice; California School-Based Health Alliance; Center for Environmental Health; Center on Race, Poverty & the Environment; Central California Environmental Justice Network; Central Coast Alliance United for a Sustainable Economy; Children's Specialty Care Coalition; Friends Committee on Legislation in California; Los Angeles Trust for Children's Health; Monterey Bay Central Labor Council; Pesticide Action Network; Physicians for Social Responsibility Los Angeles; Regional Asthma Management & Prevention; Sierra Club, California; and Western Center on Law & Poverty; Re:wild Your Campus; Sonoma County Climate Activist Network (SoCoCAN!)

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