



# Eco-Healthy Child Care®

Eco-Healthy Child Care® helps early childhood learning environments to be as healthy, safe and green as possible by reducing children's exposure to toxic chemicals.



## Lead

### What Is Lead and Where Can it be Found?

Lead is a naturally occurring heavy metal found in the environment. It is very harmful to health. Lead can be found inside a home in paint, water, consumer products (e.g. toys and costume jewelry) and dust. It can also be found in contaminated outside soil.

Children can be exposed to lead by ingesting or inhaling paint particles and dust from chipping, peeling or cracking pre-1978 contaminated paint. Lead can get into tap water by leaching from lead pipes or other lead containing plumbing materials like solder or fixtures. You cannot see, taste, or smell lead in drinking water. Lead can contaminate soil via: dust from deteriorating leaded paint, major roadways from the past use of leaded gasoline in cars, or industrial sources (past or present) such as a battery recycling facility. Living next door to a gas station, battery recycler, or other place that uses lead products can also expose children to lead via contaminated soil or water. Lead may also be found in outdoor air from metals processing and piston-engine airplanes operating on leaded aviation fuel.

The federal government banned lead-based paint from housing in 1978, however older buildings (houses, schools, or churches) can still have lead paint. Lead was also phased out of gasoline (used in cars and trucks) in the U.S. in the late 1970s and banned from use in pipes in public water systems in 1986.

**There is no safe level of lead exposure. Lead can affect almost every organ and system in a person's body.**

### Health Concerns

Lead accumulates in bones, muscles, and fat, creating a long-term source of low-level exposure inside the body. Exposure to lead can contribute to behavior and learning problems, lower IQ and hyperactivity, slowed growth, hearing problems and anemia (when your blood lacks enough healthy red blood cells) in children. Adult exposure can lead to reproductive issues, kidney problems, cardiovascular disease and nerve disorders. The people most at risk to ex-

posures are pregnant women, breast feeding mothers, and children under the age of six because they are in a rapid state of development (or nurturing a young child who is in a vulnerable state of development).

**Symptoms of lead poisoning can be easily overlooked, so prevention and testing are necessary.**

### Lead Is Especially Harmful to Children

Young children are at a greater risk of lead poisoning because of their natural and developmentally appropriate behaviors - such as putting their hands and other objects in their mouths. These objects may contain lead and/or have lead-contaminated dust on them. If children live or go to school in a place with high levels of lead in the paint or dust, their bodies can easily absorb the lead. A child's body reacts differently to lead, as compared to an adult's body. Lead substitutes for calcium; young bodies need calcium, so children can absorb 50% of the lead they ingest, while adults only absorb about 10%. Finally, because children's brains and nervous systems are still developing, they are more sensitive to the neurotoxic effects of lead.

### Tips for Reducing Exposure to Lead

#### Safe Siting of Child Care Facilities

- Consider potential lead contamination when choosing a new location of a child care facility. Visit the Agency for Toxic Substances and Disease Registry's Choose Safe Places web page for more information, [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov).

#### Paint

- Maintain your child care facility to minimize lead hazards like chipping, cracking or peeling paint.
- Renovate safely. If you are planning to paint, renovate or remodel a child care facility built before 1978, use contractors certified by the Environmental Protection Agency (EPA) for lead safe-work practices. Visit [www.epa.gov/lead](http://www.epa.gov/lead) for info.

## Water

- Use only cold water for drinking and cooking, especially when making baby formula, as cold water is less likely to leach lead from pipes or fixtures.
  - Flush your water at the tap before each use and collect the water for non-potable activities. Contact your local water utility to gather more information on suggested flushing times.
  - Test your water for lead and if needed, use water filtration devices that have been certified to remove lead at the outlet. Visit [www.epa.gov/water-research/consumer-tool-identifying-pou-drinking-water-filters-certified-reduce-lead](http://www.epa.gov/water-research/consumer-tool-identifying-pou-drinking-water-filters-certified-reduce-lead) for more info.
  - Learn about the source (public or private) of your water.
  - Find out if you have a lead service line and/or lead containing pipes, fixtures or solder. If your home was built after 1986 it most likely will not have a lead service line but it could still contain lead from solder or fixtures.
  - If your water comes from a community water system, call the water utility to see if they have records about lead service lines in your area. The water utility may also be able to inspect your home if records are unavailable. If the utility cannot help, or if your water comes from a private water supply, consider hiring a licensed plumber to investigate.
- Clean floors daily, and window frames, and window sills weekly - using a damp mop, sponge or paper towel with warm water and an all-purpose, fragrance-free cleaner.
  - Test any bare soil in or around your child care facility for lead.
  - Cover any bare soil with mulch or ground cover.

**Encourage families to have their children tested for lead. Contact the local health department or family physician about a lead blood test.**

## Consumer Products

- Stay up to date on current products recalls by visiting the Consumer Product Safety Commission: [www.cpsc.gov](http://www.cpsc.gov).
- Certain children's products are known to have a higher likelihood of containing lead such as: *inexpensive, metal children's costume jewelry (often found in vending machines); and vinyl nap mats, raincoats, backpacks, lunchboxes, teething/bath books, beach balls, rubber ducks, and dolls.*
- The following items may also contain lead but are less commonly found in child care settings: *vinyl pencil cases; old, imported or handmade pottery (i.e. children's tea sets); imported candies; antique toys; and inexpensive items often made outside of the U.S.*

Avoid purchasing these products and dispose of them if already owned.

## Soil

- Frequently wash hands, especially after coming inside and before eating.
- Supply a commercial walkoff mat at the entrance of your child care facility or remove shoes when coming inside.
- Vacuum often using a high-efficiency particulate air (HEPA) filter.

## Lead Resources

- Environmental Protection Agency: <http://www2.epa.gov/lead>
- EPA's 3Ts For Reducing Lead in Drinking Water Toolkit: <https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water-toolkit>
- The Agency for Toxic Substances and Disease Registry's Choose Safe Places for Early Care and Education program: <https://www.atsdr.cdc.gov/safeplacesforECE/index.html>
- Lead Hotline—The National Lead Information Center  
*1-800-424-LEAD (5323)*

### FOR MORE INFORMATION

**Call: 202-543-4033, ext. 13**  
**Email: [ehcc@cehn.org](mailto:ehcc@cehn.org)**  
**Visit: [www.cehn.org/ehcc](http://www.cehn.org/ehcc)**

*Eco-Healthy Child Care® (EHCC) is a science-based, award-winning national program that seeks to improve the environmental health of children by partnering with child care professionals to eliminate or reduce environmental health hazards found in child care facilities.*

### Eco-Healthy Child Care®

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