



Lead in Keys

The role of child care providers in preventing lead poisoning

Lead poisoning is the most common environmental disease of young children from birth to 6 years of age and it is preventable. As a child care provider, you are in an ideal position to protect children from lead poisoning and to educate parents about the issue. There are more than 800,000 children under 6 years of age in licensed child care in California. Parents look to you to help keep their children safe and healthy.

There are many simple steps that you and parents can take to ensure that the children in your care are safe from lead poisoning. The biggest source of lead exposure for children is from old chipping house paint. Keeping lead out of the home and child care environment is one of the most important things you can do to protect children. Making sure that children wash their hands frequently and get good nutrition are also important.

What are the symptoms of lead poisoning?

Unfortunately, symptoms of lead poisoning do not appear until the child is very sick. They include problems with learning and paying attention, and damage to the brain, nerves and kidney. Because most children with lead poisoning do not look or act sick at first, the only way to know for sure if a child has lead poisoning is for him or her to have a blood test. Parents and caregivers of children 6 months to 6 years of age should request information about lead poisoning and a blood test if appropriate at health care visits. All children in publicly supported programs such as CHDP, Medi-Cal and Healthy Families should be tested at 12 and 24 months. Other children who live or spend time in housing built before 1978 that has chipping paint or has recently been remodeled should also be tested.

Why are young children more at risk for lead poisoning?

Children are at risk for lead poisoning for many reasons:

- They explore their environment by putting toys, hands and other objects in their mouths.

- They spend a lot of time on the floor where sources of lead are likely to be found. Through normal play, children come in contact with deteriorating paint, paint chips, keys, soil and dust, which may contain lead.
- Young children absorb more of the lead they eat because they have more rapid metabolisms.
- Young children's rapidly developing brains are more vulnerable to the toxic effects of lead. These toxic effects can cause behavioral changes and can limit their intellectual and physical development.

Lead exposure can also be harmful to the developing fetus, so pregnant women should protect themselves from exposure as well.

Lead in brass keys

A recent study identified a new potential source of lead: brass keys.¹ Most brass house and car keys contain lead, because brass is a soft metal and lead is used to strengthen the key so that it will not break or bend. Brass has a yellow color, but when it is used in a key it is often covered over by nickel or a nickel-plating, making it difficult to be certain whether a key is brass and therefore is likely to contain lead.

Not all keys have lead in them, but it is difficult to tell which keys do and do not contain lead just by looking at them. For this reason, children should never be given any keys to play with.

As a result of this study, key manufacturers agreed to reduce the amount of lead in brass keys to a level that would not be a problem for adults who are handling the keys in a normal way, such as driving their cars or opening doors. However, because children often put things in their mouths and because they are at risk for lead poisoning for the reasons listed above, it is recommended that no keys should ever be given to children to play with. The study showed that if there is lead in the keys, the children can get lead in their bodies by putting the keys in their mouths, or by putting their hands in their mouths after playing with the keys.

Other sources of lead

There are a number of other potential sources of lead in a child's environment. The more sources of lead children are exposed to, the higher their risk of being poisoned, so it is extremely important to minimize all possible exposures.

- **Lead-based house paint** is the most common source of childhood lead poisoning. Buildings constructed before 1950 are very likely to have high levels of lead in the paint. Those built between 1950 and 1978 are likely to have some lead in the paint. In 1978, the amount of lead in paint was limited by law, so buildings constructed after that are less likely to be a problem.
- **Lead gets in the soil** from leaded paint breaking down to dust or chips or from leaded gas emissions. Lead is no longer included in gasoline, but some remains in the soil from car exhaust in the air. Contaminated soil is also a very common source of childhood lead poisoning.
- **Lead can be brought home on work clothes** if household members work with lead. Some examples of these jobs include radiator repair, making or fixing batteries, soldering, and home remodeling.
- **Some home-made remedies and cosmetics** such as Azarcon, Greta, Pay-loo-ah and Kohl contain lead.
- **Hand-made pottery or dishes** sometimes contain lead; test them with a kit from the hardware store.
- **Some hobbies** require the use of lead, including making stained glass or fishing sinkers.

What can child care providers do to protect children from lead poisoning?

- Teach parents what you know about lead poisoning. Share this new information about lead in brass keys.
- Encourage children to wash their hands before eating, after toileting or playing outside, and before going to sleep to help keep lead from getting into their bodies.
- Make sure that children in your program are getting plenty of nutritious food. Good nutrition helps prevent lead that is ingested from being absorbed. Nutrients such as calcium and iron can help prevent absorption, and so does a full stomach.
- Request that children be assessed for lead poisoning as part of your pre-admission requirements.
- Post and distribute information about lead poisoning.

- Make sure your own facility does not expose children to lead by following the guidelines below.

How can I make sure there is no lead in my child care program?

Your facility may have lead in the paint or soil, or have toys or dishes with lead in them. Here are some ways to see if there is any lead in your child care environment:

- Have your facility's paint and soil tested for lead. You can get the names of inspectors by contacting your local county lead poisoning prevention program or the state program. You can also test painted surfaces yourself, with testing kits sold at hardware stores. Call the Lead Program of your local Health Department for instructions on how and where to do your own testing.
- Take precautions before painting, building or renovating in your facility. Lead paint must be carefully removed, and you should consider hiring a lead abatement contractor to do so. Do not sand, scrape or burn lead-based paint. Children, pregnant women and pets should not be present during renovation.
- Cover bare soil around your facility. You can plant shrubs or grass so that children are not playing directly on the dirt. If you use well-maintained, impact absorbing surfaces under play equipment, they will protect children from lead in soil as well as from falls.
- Wash mouthed toys frequently. Test old or imported painted toys for lead; if they test positive, don't use them.
- Inspect your facility for peeling or flaking paint and test to see if it contains lead. Keep cribs, playpens and other play equipment away from the area.
- Clean and disinfect all play surfaces on a regular basis to remove not only dirt, debris and body fluids, but lead paint dust.

Reference

¹People v. Ilco Unican Corp., Case No. 305765 (Super. Ct. S.F.), Decl. of Jeffery M. Paull, Dr.P.H., September 8, 2000.

Resources

California Childcare Health Program at <https://cchp.ucsf.edu/>.

Call the lead poisoning prevention program of your local health department (look for Health Department in the local government listings of the phone book).

California Department of Public Health, Childhood Lead Poisoning Prevention Branch at (510) 620-5600 or <https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/CLPPB/Pages/CLPPBhome.aspx>.